

**Retek® Predictive Application  
Server™  
11.1.7**

**Release Notes**



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**Corporate Headquarters:**

Retek Inc.  
Retek on the Mall  
950 Nicollet Mall  
Minneapolis, MN 55403  
USA  
888.61.RETEK (toll free US)  
Switchboard:  
+1 612 587 5000  
Fax:  
+1 612 587 5100

**European Headquarters:**

Retek  
110 Wigmore Street  
London  
W1U 3RW  
United Kingdom  
Switchboard:  
+44 (0)20 7563 4600  
Sales Enquiries:  
+44 (0)20 7563 46 46  
Fax:  
+44 (0)20 7563 46 10

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Retek on the Mall  
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## Release details

Release information	Details regarding this release
Application	RPAS (Client, Server, and Configuration Tools)
Version Number	11.1.7
Code Cut Off Date	May 6, 2005
Release Date	May 13, 2005
Type of Release	Patch
Base	11.1
Patch	7
RPAS Client Build Number	1.1899.2.38
Supported OS, Server	Sun Solaris 8, AIX 5.1/5.2/5.3, HP-UX 11i (11.11), Windows NT
Supported OS, Client	Windows NT, XP, 2000
Required 3rd Party Software	JRE 1.4.2 (installed on client and server machines) CVS (installed on server – if using integrated Source Control)
Documentation	RPAS 11.1 Installation Guide RPAS 11.1 Administrators Guide RPAS 11.1 Users Guide RPAS 11.1 Configuration Guide RPAS 11.1 Rule Functions Reference Guide RPAS 11.1 Calculation Engine Users Guide

# Current patch – RPAS 11.1.7

The following section contains information about enhancements, changes, and fixes that are available in this RPAS patch. This includes changes to the RPAS server, the RPAS client, and the Configuration Tools.

## Overview

### Notes about upgrading

- **Deletion of workbooks** – Each RPAS patch updates the domain version information and often includes changes to the structure of the RPAS domain that require all workbooks to be rebuilt. Existing workbooks cannot be opened after a domain has been upgraded. Make sure that all data has been committed for existing workbooks where desired before applying this patch. This includes workbooks that need to be committed manually and any workbooks that are waiting to be committed in the “commit later” queue.
- **New RPAS client** – Each RPAS patch contains a new RPAS client that must be installed after upgrading a domain to the new version of the server.
- Styles in the RPAS Security Administration workbook are automatically deleted during an upgrade.

### Upgrading instructions for global domain environments

Follow the instructions below when upgrading global domain environments if you wish to create a backup of the domains prior to the upgrade.

- Download the new version of the RPAS platform (Server, Client, and Configuration Tools if applicable).
- Copy the directory of the Global Domain environment using the UNIX copy command (`cp`).
- Upgrade the original domain or the copied domain.
- Rename the upgraded domain using the RPAS utility for copying domains (`copyDomain`).

## Resolved issues

The following section contains defects that have been fixed in this patch.



**Note:** Some defects identified by Retek development teams and other internal groups have been excluded from this list due to the complexity of the issue.

### RPAS server and client

Resolved issue	Defect
Several issues have been addressed regarding measure security. Currently, if users are granted read-only access to a workbook template, all measures are properly respected as read-only. Previously, there were certain scenarios when the measure access rights in the Security Administration workbook template were overriding the measure security as defined in the configuration of the template (which ultimately controls measure security).	376123
An issue has been addressed with the base RPAS procedure "lookup." Previously, there was a problem with the mapping measure where the expressions using the lookup procedure were not getting evaluated when the mapping measure was modified.	392912
The usage for the RPAS utility updateArray has been updated to explain that either -srcArray or -srcScalar parameters may be used, and that if neither is specified, it is the same as if -srcScalar "NA" was provided.	393097
The RPAS client has been updated so that vertical scroll bars should no longer disappear when scrolling through a list.	393227
The RPAS client has fixed an issue with the "Find" functionality (from the right-click menu) so that all data in a workbook remains in the correct cells.	393458
An issue has been addressed so that there is no longer an error when attempting to sort data in a saved workbook.	393592
The RPAS client has been updated so that entries in a drop down list are no longer being crunched together, which was making the list unreadable to the user.	393615
The RPAS client has been updated so that entries in a drop down list are no longer getting messed up when scrolling up and down.	393616
The RPAS client has been fixed so that the black outline around entries in a drop down list remains intact when navigating through the list.	393617
A fix was introduced in the client so that when a user selects the Show/Hide options for measures or hierarchies, the workbook cells do not become non-editable (or hatched out).	393854
RPAS has fixed an issue with the utility for the calculation engine (mace) that was resulting in lock contention and was preventing multiple uses of the utility; specifically RPAS is no longer writing to the store.gem file unless necessary.	394095

Resolved issue	Defect
RPAS has fixed an issue when running multiple process of the utility for reshaping arrays in the domain (reshapeArrays). The system no longer writes to the store.gem database unless necessary.	394110
An issue has been addressed in the RPAS client that was causing combo boxes to get corrupted under certain circumstances. The issue was encountered in RDF when attempting to assign a sister store and like item. Currently, when a combo box is protected, it will not display the popup window.	394670
The RPAS client has been fixed to address an issue with saved styles. Specifically, the client now allows a new window to be added to a workbook built from a workbook template where the style has been saved for that template. A common scenario for this condition is when a user adds an extra measure in the wizard process.	376843
The client has been updated so that style formats are no longer causing errors after a domain has been patched.	394150

## Configuration tools

Resolved issue	Defect
The Rule Tool currently prevents a user from reordering rules when rule filtering is enabled. Previously, the Tools were incorrectly allowing re-sequencing when rule filtering was enabled.	394529
An issue has been fixed in the Rule Tool that was causing the wrong rule name to be displayed when attempting to rename a rule.	394522
An issue has been addressed that was causing security settings for workbooks to reset after patching a domain (using patchinstall). Previously, an administrator could grant users access to workbook templates, but the settings were deleted after patching the environment.	393433
A new field named “Workbook Group Label” has been added to the General tab of the Workbook designer. This allows the user to select the same name and label as other pre-existing groups and labels. Previously users could not add a new workbook to an existing tab.	393423
Service Pack 2 of Windows XP is not compatible with the old version of MKS (used when running RPAS server on Windows), which was causing a number of issues; specifically “Dynamic Template” of the Configuration Tools was failing to execute batch scripts. Installing the new version of MKS has corrected the problem.	393282
Added some content to the RDF configuration. There is a new measure along with the load and commit rules for it.	No Defect #



Resolved issue	Defect
<p>Some customers with large configurations have run into issues involving memory when trying to patch a domain. To address this, the customers previously added the argument [-Xmx + some number] to the call made to rpaInstall.</p> <p>An optional environment variable has been introduced named "RIDE_OPTIONS" that can be set in a profile using a value of "-Xmx + some number." For example, -Xmx512m. The rpaInstall script has been modified to include \$RIDE_OPTIONS in the command line call to java. This variable is optional and will not affect the system if not defined. When defined, the variable will be used during each call to rpaInstall. Additionally, install scripts will no longer need to be modified after receiving a new version of the software.</p>	No Defect #
<p>Two timestamps (Task Begun and Task Ended) have been added to the rpaInstall logs for the Installer.</p>	No Defect #

## Known issues

### Issues that cannot currently be addressed

The following issues exist in either RPAS or the Configuration Tools and either cannot or are not likely to be addressed in the near future.

- Browse button in Measure Extractor of Configuration Tools – Browse button does not recognize shortcuts. This issue is due to a known bug in Java and there is no workaround.
- Function validation – There is no validation for the "prospread" and "passthrough" functions in the Configuration Tools. Specifically, the Tools cannot validate that the correct number of arguments have been supplied. Both should have a predictable number of arguments, which are based on the number of measures being calculated (for example, prospread should have one more argument than the measures being calculated). See the RPAS Rule Functions Reference Guide for the syntax of these functions.
- Lock contention messages in Installer – For several releases, there were a number of lock contention issues in the log file of the Installer.
  - Most of the underlying issues have been resolved, and an administrator should only see one message (as indicated below) in the Installer log file or in the console window when opening the Workbench.
  - Users see a dummy data directory in the working directory when running the Installer. This is done so that the system can obtain the read lock when building a domain, which will eliminate the lock contention messages in most cases.



**Note:** To avoid this problem, ensure that users do not execute the rpaInstall scripts from within the domain.

- There are still some underlying issues that will cause the following message to appear:

Error when reading domain properties: [[DatabaseOpenFailed:  
C:\ConfigTools\DomainBuildTest\11.1.2\1117\data\admin]

This message can be ignored because it does not affect the domain.



- There is currently an issue that prevents building domains on the AIX operating system when running Java 1.4.2. This results in a “Null Pointer Exception.” **Continue to use Java version 1.4.1 only on AIX** (related to defect 377826).
- Currently cannot resize Workbook and Worksheet windows in Workbook Designer of the Configuration Tools. Using the current release of the Tools, once the user resizes the window that displays the list of workbooks and worksheets in the Workbook Designer, the user is not able expand the window beyond a very small area. There is a technical issue with Java that currently prevents this from easily being addressed (defect 377487).

### Notable outstanding defects

Known issues	Defect
In the Data Interface tool of the Configuration Tools, the start position for measures does not correctly update when the load intersection of the measure is changed.	393468
Specific versions of Java 1.4.1 on AIX are causing the configuration copy stored in the domain to somehow be corrupted during the final steps of the install process.	393335

# RPAS 11.1.6

## RPAS server and client

Resolved Issue	Defect
<p>A complex issue with user-defined hierarchies has been addressed that was occurring when new positions are added to a domain.</p> <p> <b>Note:</b> There are a number of complex issues that require the administrator/implementer to perform some manual steps to avoid running into problems.</p>	375837
<p>A few issues with beginning of period and end of period calculations have been addressed in the calculation engine.</p>	375864
<p>The exportData utility no longer fails when both the <code>-wide</code> and <code>-skipNA</code> options are used together.</p>	375889
<p>An issue has been addressed where alert workbooks were not building in new domains with registered alerts but when the alert finder had not been run.</p>	376238
<p>Some issues with very large input measure files (greater than 2 gigabyte) have been fixed for the loadmeasure and splitmeasuredata utilities.</p> <p> <b>Note:</b> There are some technical details that should be noted, all of which are included in the actual defect notes and resolution.</p>	376413
<p>A problem has been fixed so that the count of alerts in alert workbooks is based on the number in the workbook and not the domain.</p>	377080
<p>When working with position queries and trying to find a hierarchy that is empty or not found the RPAS Client no longer crashes or produces errors.</p>	377108
<p>The problem in the Hierarchy Maintenance template has been fixed to correctly handle using the back button to go back and choose a different dimension.</p>	377186
<p>The Hierarchy Maintenance Template has been changed so that it will properly add the new positions to the workbook as well as the domain.</p>	377320
<p>A problem with percent to parent measures has been fixed so that the behavior is consistent when making edits to percent to parent measures.</p>	377356
<p>A number of minor display issues have been fixed in the RPAS client for the graphing functionality.</p>	377815
<p>A fix has been made to the RPAS client that corrects a navigation issue when using the forward arrow keys (<code>&gt;&gt;</code>) when viewing data in the graph mode.</p>	377864
<p>When logging into the RPAS Client if you entered an incorrect login or password you receive a new window asking for the correct login. If you select cancel on that window the client used to be left in a state where all you could do is shut it down and start over. This has been corrected so that the menu options and toolbar are reset when the user selects cancel.</p>	377916

Resolved Issue	Defect
There was a problem where the standard RPAS wizard “Edit User” was always resetting the permissions of the user based on the administration flag only. This has been fixed so that the permissions are changed only if the administration flag is changed.	377931
The Alert Manager wizard process has been changed so that information is updated when going backwards and forward in the wizard process. Previously, certain information was not updated unless the process was restarted.	378124
The utility for building workbooks in batch (wbbatch) has been updated so that a message is displayed to the administrator when running the utility when there are no scheduled workbook operations (that is, no workbooks scheduled to be built). An administrator now sees a message such as “no workbooks have been scheduled for auto build.”	378127
The RPAS client has been updated to allow measures with a data type of “real” and a NA value with decimals to correctly display the values with decimals.	392819
An issue has been fixed that was causing an error when aggregating scalar measures in the master domain of a Global Domain environment.	392885
The aggregation method to find the minimum of populated values (min_pop) has been fixed to work properly in the master domain when aggregating data for measures with a higher base intersection than the partition level (only applicable in Global Domain environments).	392904
The Help files have been updated and should contain all the correct information.	392922
The utility for loading measures (loadmeasure) has been fixed so that data can be purged in configurations/solutions using different formats for the position names of day; the format is set by the dimension information. For example, now “DAY19970101” is now functional; previously it had to be in the format “D19970101.”	392960
The exportData utility has been enhanced so that it now exits if one of the exported dimensions does not exist in one of the export arrays.	392969
A new validation has been put in place that checks to make sure that a user group name does not match a user name. This was causing a workbook to hang when trying to commit data.	393017

## Configuration tools

Resolved issue	Defect
In the Data Interface Manager inside the Tools workbench, the Load Intersection buttons were displaying in RED color if the base intersection did not match the base intersection of the measure being interfaced. This has been fixed so that it checks if the base intersection is a descendant of the load intersection.	376660
Previously, if a rule set had empty rule groups, the TemplateCfg Generator did not load an entry for that rule group in the workbook's tplm.cfg file. This has been fixed now.	377612
Under certain conditions there were issues when running custom menus that contained rule groups and shell scripts. The issue was that the system did not release locks on some of the database (.gem) files and therefore the script fails. This issue has been fixed.	377813
Dynamic picklists ranged by dimension in workbooks will now use external position names.	377968
Previously, some workbook builds were failing in global domains. We have now implemented a check to verify if what was returned is a valid dimension or null or ""	378064
Fixed issue to restrict the ability to set a security dimension for the Calendar (CLND) hierarchy.	378081
On the General tab in the Workbook template properties, a hierarchy will no longer turn red if placed on the Unassigned axis. Previously, if a hierarchy was on the Unassigned axis in the worksheet, it caused that hierarchy to be red when set to the Unassigned axis on the workbook template.	378090
Previously, when using the Show / Hide option in the workbook, duplicate values were displayed for a measure if the measure's aggregation method was changed during a patch install. The way to get rid of duplicate measures is to make sure the allowed aggs is set to the default agg for the measure <Config Tools – Measure Definition Tool>	378098
A Null Pointer Exception error was thrown when a workbook tab was copied and then you click on the worksheet.	378208
Users will no longer receive an error dialog "The measure name is in use" if they double-click in the Identifier field on the Components tab in the Measure Tool	392994
Fixed the issue regarding an "Index Out of Bounds" error being thrown when large scale rule deletions were made within the same rule group	393107
Inside the Hierarchy Tool, the Database name for dimension "User" was wrongly stated as HMAINT. This has been corrected to display 'ADMIN' as the Database.	393228

# RPAS 11.1.5

## Resolved issues

Resolved Issue	Defect
Loadmeasure was throwing an Exception error when loading measure r_msglabel. The load file needed a blank line in the end in some of the platforms and not necessary in others. This was fixed so that it always has a blank line in the end. For some reason, 'Default Language' was displayed in the r_msglabel.ovr.english file instead of the actual default language=English; quotations were also stripped from the default language loaded in this file. Also, if a message does not have a label, it will not be populated in the file.	377716
RPAS has addressed issues encountered sometimes when rolling up to user-defined hierarchies when building certain workbooks; these issues were visible in the Assortment Planning solution.	377593
Deleting an application (solution) was not flagging the domain as dirty. This has been fixed; the domain will now recognize the change with the little yellow caution icon to the left of the application name and the user will get the save dialog if they try to close the configuration.	377568
Issues have been addressed that were causing errors when copying data to the clipboard in the RPAS client.	377440 375861 375420
In previous versions, a user was able to add a solution without a solution name by either hitting Escape then clicking the close window object(X) or just clicking the close window object(X) from the new Solution dialog. This problem has been fixed.	377417
Previously, a Null Pointer Exception error was thrown if no configurations were selected in the Configuration Manager and the user tried to create a new solution using the File menu. Now, the Solution option will be disabled in the File menu until a project has been selected in the Configuration Manager tree.	377415
A user will no longer receive error messages when trying to commit data in workbooks built from the standard RPAS template Translation Administration; this issue was only valid for multi-lingual domains.	377357
An "ArrayOutOfBounds Exception" error will not be thrown anymore when users create measure components/measures. It was experienced previously if the following steps were taken: 1) add a measure component, 2) realize a measure, 3) use that measure in a rule, 4) create a workbook and use that rule group then, start the process over again with adding a new measure component, etc..	377355
Select hierarchies can now be chosen to not display in a workbook; these hierarchies will be placed on the Unassigned axis within the worksheet. Previously, the Configuration Tools displayed the hierarchies in red if they were placed on the Unassigned axis.	377328

Resolved Issue	Defect
Measures no longer disappear from the Measure Analysis wizard after being inserted into a Measure Analysis workbook.	377325
Measures must have a data type specified when the measure is being registered. Previously the system did not indicate which measures did not have a valid type specified and the interface crashed. Now the system indicates which measure could be registered.	377271
The measure name will now appear in it's entirety on the Percent of Parent pop up window in the RPAS client.	377202
An issue with print preview (worksheet) has been corrected; under certain conditions the RPAS client was crashing when attempting to preview a worksheet.	377078
Measure label names in multi-lingual configurations have been increased from 80 characters to 255 characters.	376876
Added scroll pane and split pane to standard wizard dialog to view all hierarchies / dimensions when a configuration consists of several hierarchies.	376781
Edits to a pick list were not previously recognized in the Client when the domain was patched because there was a space(s) in the Range(s). Now, leading and trailing spaces in the Range selections are being stripped and the patched domain will reflect the changes properly.	376658
The insert measure functionality was fixed to work correctly with the RDF workbook "Forecast Approval".	376647
Performance improvements have been made to the utility for loading measures (loadMeasure).	376412
Performance improvements have been made to the splitMeasureData utility. This utility is used only in a Global Domain environment and is used for splitting measure files from a single file in the master domain to multiple files into the local domains.	376411
Previously, the encoding type for all .xml files was reported as UTF-8, regardless of the actual encoding type. Due to some configurations that use non-standard characters, we now force the encoding type of UTF-8 so the file will be loaded and interpreted properly. Configurations with these non-standard characters will now save and load properly.	376256
Previously, filtering on positions was not working properly in the Client. Users should now be able to filter on positions using a Boolean measure and the position query functionality.	376055
Error messages have been improved for errors received when trying to run functions or procedures in an RPAS extension that has not been registered.	376042
The Configuration Tools now validate that only a single dynamic hierarchy can be defined for a given hierarchy.	375984
When building a workbook the Position Query Definition's in the wizard will now validate against the domain that all of the positions are valid.	375966

Resolved Issue	Defect
A fix to the client has been added to correctly show symbols (i.e. \$ or %) for measures with a value of zero.	375939
A few issues with beginning of period and end of period calculations have been addressed in the calculation engine.	375864
Changes were not being displayed properly in the client when a configuration with 5 or more hierarchies was patched and two hierarchies were chosen not to display in the workbook. A hierarchy can now be set on the Unassigned axis so it will not display in the workbook <similar to defect 377328>	375843
The utility for performing workbook operations in batch (wbatch) has been fixed to properly run processes in parallel.	375841
Workbook formatting was fixed so that if the user saves the workbook format, additional measures can now be reselected in a new workbook build wizard process.	375759
Measures that are standard within a workbook are now no longer available for insertion via the wizard that builds the workbook.	375501
Several issues have been addressed when running custom menus. One issue was that after executing the menu option the name of the rule group was getting displayed instead of the label; the other issue was a documentation omission (the path to the script must still contain the “.”).	375440
A "-precision" argument has been added to the exportData utility. This argument may be used to ignore exporting numeric values which only differ from the nvalue less than the precision value specified. The precision value is designed to be a number less than 1. If the precision value is greater than 1 the user will see a warning message.	375433
Client change so that the Edit Controls in a wizard page will now remember the previous contents when the wizard screens are accessed a second time.	375367
An error that would occur when trying to scroll through a workbook with hidden dimensions has been fixed. When scrolling the page hierarchy of a workbook, only position queries that contain the changed dimension as one of their parameters will execute.	375356
When running a shell script from the menu in a workbook the messages have been updated and the checks have been corrected.	374965
The duplication of drop down list entries has been corrected.	374535
A new environment variable, "RPAS_LOCK_TIMEOUT" has been created to allow users to set the timeout period length when write-lock errors occur during simultaneous commits.	374102
The Config Tools no longer opens a save dialog when a widget is clicked inside the Wizard Designer but no changes have been made.	372687



Resolved Issue	Defect
Changed the workbook template generation algorithm to be more robust to boundary conditions involving empty workbooks or tabs. Now, a workbook with no sheets will no longer result in the template entry 'sheet =;', now that entry will be absent	No defect
A performance improvement has been made after selecting a Worksheet from the tree to display in the Tools.	No defect
Fixed a bug that made 'Label' appear as the Label for an Edited Measure that did not have a Label specified in the Tool.	No defect
Previously, when adding a function library to use in the Tools workbench <Utilities menu/Function Library Manager>, the generated applibs.xml file was being created in the /bin directory of the Tools build. It has been fixed to write the file to its correct location in the /resources directory.	No defect

## New functionality

The following is a list of platform enhancements that were available in the patch (except where noted as available in a previous patch).

### Server and client

#### Filtering out values when exporting data

An enhancement has been made to the RPAS utility **exportdata** (new parameter **-precision**) that allows a user to ignore (not export) values that differ from the NA value less than a specified value.

The purpose of this enhancement is for the export utility not to export values that vary only slightly from the NA value, most commonly very small values close to zero. For example, consider a numeric measure with a NA value of zero; if the precision value is specified as 0.01 any number smaller than that is ignored, so 0.0034 would be ignored while 0.34 would be exported..

The precision value must be less than one; if a value greater than one is provided the utility returns a warning.

### RPAS lock timeout variable

RPAS has introduced a new environmental variable named “RPAS\_LOCK\_TIMEOUT”. This variable has been added to allow an administrator to set how long they want to wait before timing out when there are lock contention issues; this most commonly occurs when 2 users attempt to simultaneously commit/save the same data.

This environment variable is set on the back end to the number of milliseconds to wait for a file lock before returning a lock contention error. The default value is 60000 milliseconds (one minute). As with any environmental variable the variable must be set prior to starting the process that uses that variable; the variable was introduced for use with the RPAS database server, which means that the variable is set for the DomainDaemon.

For example, the 2 lines below indicate how an administrator would tell RPAS to wait two minutes before returning a lock contention error with the RpasDbServer after launching the client and logging in; any client that connects to that domain daemon would see lock contention after a two minute delay.

```
Export RPAS_LOCK_TIMEOUT=120000
DomainDaemon -port 55123 -start -debug &
```

### Normalization and resizing functions – norm, resize, resizenorm

The above functions are now available in RPAS. The syntax for configuring and using these functions is documented in the RPAS 11.x Rule Functions Reference Guide.

The **norm** function is used for normalizing a time series of values; it recalculates the values for the individual time periods to a new total, but while retaining the “shape” of the data.

The **resize** function uses the “shape” of a function to produce another function of a different length, but with the same shape.

The **resizenorm** function uses the “shape” of a time series to produce another time series of a different length, but with the same shape normalized to a specific total.

## Changes to existing functionality

### Server and client

The following section identifies changes to the RPAS server, RPAS client, or the Configuration Tools.

- The RPAS utility for running workbook operations in batch (wbatch) had a parameter that was incorrectly documented in RPAS 11.1 GA and in the usage of the utility. The parameter for building or refreshing workbooks in parallel is “**-processes**” and not “-parallel” as previously documented and communicated.

# RPAS 11.1.2

## Resolved issues

### Server and client

Resolved issue	Defect
A client fix has been made to correct incorrect cell displays when collapsing and expanding product dimensions.	373612
The utility for building workbooks in batch (wbatch) has been fixed so that the same workbook can be built multiple times. There is a new issue related to auto-workbook build that is specific to building an RDF Forecast Approval workbook in batch mode (Defect 37563)	374637
All RPAS utilities have had their error return codes changed from negative to positive numbers.	374101
All token measures are now registered as not “insertable”. The “insertable” measure property allow measures to optionally included by selecting them in the Extra Measures wizard page. Token measures will no longer appear on this wizard page.	374804
An Extra Measures wizard page now only displays measures with the 'insertable' property set to true.	374531
All workbook templates now accept the insertion of all upper and lower bound measures.	374207
A development parameter for wizard pages (AlwaysRefresh) has been fixed so that when it is set to "true" the page will always refresh its contents each time it is displayed.	373758
Certain changes were made to the calculation engine so that calculation errors no longer occur on saved, then re-opened workbooks.	374694
The “transform” custom extension is now working correctly in upgraded 11.1 domains.	374231
During a domain upgrade process, style settings in the Security Administration workbook are now automatically deleted.	375076
The Security Administration Template (including Measure Rights worksheet) does not function correctly after a domain has been upgraded if a style has been saved for the template. The workaround is to delete the database that stores the styles (rpas_sec*.gem in the domain/styles directory). In the future this style will be deleted during the upgrade process (see defect 375076).	374359
Multiple issues have been addressed that occurred when adding measures to worksheets in alert workbooks.	375051

Resolved issue	Defect
RPAS is now throwing an exception if all the entries in an input file are erroneous when loading a hierarchy file (using the loadhier utility). RPAS will return these errors with a non-zero status code.	348977
<p>Previously, if you added or deleted positions for a partitioned dimension, loadHier was failing when trying to load a non-partitioned hierarchy. loadHier was modified so that you are now able to successfully load non-partitioned hierarchies without any errors; the utility provides the following warning when it encounters these related problems:</p> <p>You are either trying to load a position which doesn't exist in map array or you are purging a position which still exists in map array. You can resolve this problem either by using reconfigGlobalDomainPartitions utility or by changing your input file data.</p>	374050
There is a new argument option to loadHier , "-logLoadedPositions" , that creates "loaded[HIERNAME].dat" files in the input/processed directory when specified. Additional information about this enhancement is available in the enhancements section of this patch.	374143
The setting for “synchronized page scrolling” is now respected when formatting is saved in a workbook.	374247
The Commit ASAP functionality is now working correctly with "refresh" in domains upgraded from 11.0.4 to 11.1.	375089
The copyDomain utility has been fixed when copying Global Domain environments; the master and all associated local domains are properly handled.	375809
The exportData utility has been modified to export calendar data to display in the format of a week ending date: 20040101 (to be in sync with the date format in the RMS product) when used in conjunction with a new function indextoenddate (see above section in release notes).	373218
The exportData utility has been fixed to display an error message with using incorrect formats for date measures.	375263
The exportData utility has been fixed to function correctly with the parameter "-array".	375777
The exportData utility has been fixed to export all records when specifying a range.	374710
The help files for the RPAS client can now be correctly accessed from the Windows Start Menu.	374537
The calculation engine utility (mace) has been fixed to display an error message when running with both a group name and expression string in the same call.	375239
The performance of an AIP binary has been improved.	375543
The utility for registering templates (regtemplate) has been fixed to successfully register TemplateLib in all domains of a Global Domain environment.	375830

Resolved issue	Defect
The utility for updating/reshaping arrays (reshapeArrays) has been fixed to allow the specification of an absolute or relative path when specifying the path to the database. Previously, this was causing messages for custom menus to be incorrectly displayed.	373170
Several internal RPAS components have been updated to address issues with memory management and performance when attempting to copy and paste at aggregated levels.	373377
The RPAS Client has been fixed so that saved workbooks are not displayed in duplicate in the "open" window. This situation was occurring under certain rare circumstances.	374741
The optimized/release version of RPAS has been updated to throw an exception if there are errors when running certain off-line RDF binaries.	374756
Token measures are now allowed to have the same base intersection of the partition dimension.	372236
Several performance issues have been addressed with expressions that were encountered when evaluating expressions using the standard RPAS functions "leadl" and "lag".	373608
The workbook limit per user group and template in the RPAS Security Administration workbook is now committing successfully.	374169

## Configuration tools

Resolved Issue	Defect
Previously, the domain build process would error if the Load Range name for a dynamic picklist measure contained spaces.	375182
RPAS does not support position level security on the calendar hierarchy; this feature has been disabled in the Configuration Tools (Hierarchy Definition Tool).	375101
Filtering by measure in the Measure Definition Tool works according to what tree nodes are selected in the class tree; previously, it only worked if all major and minor components were selected.	374780
Fixed issue when clicking on a wizard widget (without making any changes) that caused the Tools to prompt the user to save changes before closing the configuration.	372687
Two issues fixed: 1) Rule filtering is no longer turned off when switching rule groups. 2) Measure label concatenation correctly inserts spaces between minor classes when measures are auto-generated.	373376
The context menu no longer goes off the screen if it is opened near the bottom of the screen when using the Tools on Windows XP.	373130

Resolved Issue	Defect
No longer see the following output regarding the construction of measure names using the component scheme when executing the Installer: RkWPAdjStrR = LVL:Rk Vers:WP Metr:AdjStr UOM:R RkWPAdjStrU = LVL:Rk Vers:WP Metr:AdjStr UOM:U	373114

## New functionality

The following is a list of platform enhancements that are available in this patch (except where noted as available in a previous patch).

### Platform – server and client

- RPAS has a new version of the RPAS client configuration utility (not related to the Tools) that stores encrypted passwords (available in 11.1 GA)
  - RPAS has created a new version of the utility used to configure the RPAS client. This new version encrypts user passwords and is called "**EConfigure.exe**"
  - It is functionally and visually identical to the previous "Configure.exe" utility.
  - It is located in the main directory of an RPAS client installation (same directory as "Foundation.exe" and the old utility "Configure.exe").
  - The previous "Configure.exe" utility will be supported in 11.1 but is scheduled to be deprecated in 11.2.
- RPAS provides the ability to spread measures proportionally that have an aggregation type of average. Previously, RPAS only supported replicate to be used with average (available in 11.1.1)
- All user passwords are now encrypted within the RPAS data structures - they are encrypted in the arrays admin.userinfo and admin.passwordhistory (available in 11.1.1)
- The new function **indextoenddate** returns the end date of a period where the index number is supplied; see sections below for additional information and the function syntax.
- A utility splits measure data (**splitMeasureData**) from input files in master domain to multiple input files in local domains. Beginning with 11.1.1, it is no longer necessary to copy the measure data files to the local domains; input files only need to be loaded into the master domain.
  - A utility takes input files located in the master domain and splits them into multiple input files in the local domains based on the location of positions (HBI measures are maintained in the master domain).
  - A utility can process multiple input files (for example, sales.ovr, sales.ovr.1, sales.inc) for the same measure in a single call
  - **splitMeasureData** should be called prior to running **loadMeasure** in each local domain
  - Syntax: **splitMeasureData -d pathToGlobalDomain -measure measureName**
  - Enhancement to the hierarchy loading utility (loadhier)

- There is a new parameter for loadhier (-logLoadedPositions) that creates "loaded[HIERNAME].dat" files in the input/processed directory when specified.
- File contains line of the original input file that loaded successfully. The default behavior of loadHier is not to create these files. Additionally, RPAS is no longer creating the "[HIERNAME]DeletedPositions.log" file. This has been resolved by creating "loaded[HIERNAME].dat" files, thus now there is no need for these "[HIERNAME]DeletedPositions.log" files.

## Configuration tools

The 15 character restriction on custom menu labels has been removed; additionally non alphanumeric characters can be used in the labels

## Alternate ways of exporting date values

RPAS has implemented a feature that provides the ability to export date values in a format other than the name of the position. Many customers want to see dates exported as a date value (such as week ending "20040105") rather than the position name (such as "W01\_2004").

This is now possible with the availability of a function `indextoenddate` that returns the index of a given period; when combined with the previously available function `indexfirst/last`, the function can be used to create a mapping measure that can be referenced when exporting data.

To meet this requirement there are several steps that must be followed:

- Create a mapping date measure (for example, "mapmeas") that has a base intersection of the CLND dimension that is being mapped (the week dimension in the above example)
- Create and evaluate an expression for that measure using the **indextoenddate** and **indexfirst** functions
  - For example: `mapmeas=indextoenddate(indexfirst([clnd].[week]))`
  - The expression can be evaluated directly by using the **mace** calculation engine utility or in a workbook
- Run the **exportdata** utility using the array mapping technique, referring to the underlying array name of the mapping measure (see the RPAS 11.1 Administrator's Guide for additional information on `exportdata`).

To clarify this approach a simple example follows.



## Exporting date values as end of week

Consider an example where the data to be exported is stored at sku-store-week (for example, W01\_2004 sku1 str1). Imagine that the user desires to see the value of week as YYYYMMDD instead of the position name.

First it is necessary to create a date measure that will store the mapping data between the position names and the date of the last day in the week. For example, register the following measure:

```
regmeasure -d . -add mapmeas - type date - baseint week - nvalue 2000020313200000 -db testdb
```

Next the values of the mapping measure must be updated with the correct date values. This can be accomplished by executing an expression in the mace utility using the **indextoenddate** and **indexfirst** functions (or combinations thereof depending on how the dates should be mapped). For example:

```
mace -d . -run -expression 'mapmeas=indextoenddate(indexfirst([clnd],[week]))'
```

After the mapping measure/array has been created and values have been populated, run the **exportdata** utility such as the following:

```
exportData -d . -out test.out -array "data/pos|pos%1 %13f 0 %13f" -dim "week testdb|mapmeas%1 %8s 1"
```

In this example the date values would be formatted as YYYYMMDD.

## Calendar index function – indextoenddate

Returns the end date of the period whose index number is supplied.

Syntax: **indextoenddate**(<index> [ , [<clndhierarchy>]. { [<dimension>] | **current** } ] )

Where <clndhierarchy> is the name of the calendar (time) hierarchy, and <dimension> is the name of a dimension in the calendar hierarchy. **current** is a keyword that implies the current dimension in the calendar hierarchy. If <dimension> is not a valid dimension in the calendar hierarchy, an **error** is generated. If the calendar hierarchy and dimension are not supplied, the default is the current calendar dimension.

Note this function requires that the day dimension of the calendar hierarchy be included in the workbook. If the lowest dimension of the calendar hierarchy is above the day dimension the function will not be able to return a valid date.

<index> is an expression that returns an index number in the indicated calendar dimension. If <index> is non-integer, only the integer portion is used. If <index> is not a valid index number for the specified dimension, an **error** is generated. If the measure being evaluated does not have a base intersection in the calendar hierarchy, and the **current** option is used, an **error** is generated.

The function returns a date that is the end date of the period indicated by the dimension and index number. If the period being evaluated is at or below the day level, the end date is the date of the whole of the period. If the period being evaluated is above the day level, the end date is the date of the last child position at the day level of the period being evaluated.

Inverse: The **indextoenddate** function does not have an inverse.

Examples:

- `indextoenddate(current)`  
Returns the end date of the current time period
- `indextoenddate (indexfirst([cld].[qtr]))`  
Returns the end date of the last period in the current time dimension in the current quarter.
- `indextoenddate (index([cld].[week], openweek), [cld].[week])`  
Returns the end date of the period at the week level whose name is held in the openweek measure.

## Changes to existing functionality

### Platform – server and client

The following section identifies changes to the RPAS server or client, and potentially the Configuration Tools as well.

- "none" is not a valid aggregation type in RPAS and RPAS no longer allows measures to be registered with this aggregation type (available in 11.1 GA).
- Edited cells always calculated – previously RPAS did not recognize an edit to a cell unless the value was changed; this caused issues in situations such as scaling (for example, scale to 1000 so a value of 1200 is shown as 1); the behavior has been changed so that any edit is considered a change and the new value is sent for calculation (available in 11.1.1).
- The following utilities (**upgradeDomain**, **inithier**, **createRpasDomain**, **createGlobalDomain**) have been updated to error out if hierarchies are loaded with the same names as dimensions; users can override this behavior with the parameter -ignoreSharedNames (it is -s in createRpasDomain and createGlobalDomain).
- Enhancement to output for the -specs parameter for the **printMeasure** utility – if the measure is a date-type measure, the NA value will be formatted as a date (yyyy/mm/dd hh:mm:ss.ss); additionally, the type field shows the type name (int, date, bool, and so on) as well as the integer code.
- Enhancement to output for -specs parameter for the **printArray** utility – the NA value of the array is now displayed on the line with the NOBS and NODS values; furthermore, if the -format parameter is present, it is used to format the NA value as a date.
- The RPAS utilities below have been centralized when used in a Global Domain environment. These utilities need be run only in master domains and not in local domains (except the **wbmgr** utility as noted):
  - **inithier** – for setting position-level security and increasing the width of positions (since position names can be longer than 24 characters with the implementation of position name indirection)
  - **regmeasattr** – registering measure attributes
  - **dattrmgr** – registering dimension attributes
  - **wbmgr** – for listing and removing workbooks in a domain; this utility can be run in the master domain and local domains
  - **changedomainsparseness** – changing domains to/from the use of hypersparse databases

## Configuration tools

The following section identifies changes that relate only to the Configuration Tools.

- Measure Tool
  - Attribute inheritance has been restored in the Measure Tool to distinguish which measure attributes of minor components are inherited from the major components and which are overwritten (values are gray if inherited, black if manually overwritten); this behavior was lost in 11.1 GA.
  - Tabbing off the bottom of a table in Configuration Tools - there was at least one case in which an error could be thrown if the user initiated an edit using the mouse on the bottom row of the table. Once the edit was complete, an attempt to tab around the table would result in an exception; a mechanism has been added so that the exception will be handled without interrupting use of the table.
  - Several issues with persistent picklists that caused undesirable behavior have been resolved; the picklist editor automatically disposes of itself upon the selection of an item from the picklist. Examples of issues include:
    - The failure of a set value to be saved because the Save option was selected immediately after the edit.
    - The wrong measure having a value set because the class membership of the table was changed directly after the edit (through the measure selector)
    - At least one case of an exception being thrown when attempting to tab out of an editor that was a picklist.
    - Improper reaction of the table to arrow keys due to the fact that the picklist was 'catching' them.

# RPAS 11.1.1

## Resolved issues

### Platform – server and client

Resolved Issue	Defect
When building global domains, users can now register higher base intersection (HBI) measures with the special values option using regmeasure without specifying a database. The special value option was trying to register the HBI measures with special values in the sub domains, which is not valid functionality. Now these measures are only registered in the global domain.	373773
Formerly, passwords for the RPAS client in the admin.userinfo array were not stored as encrypted files. Changes have been implemented into 11.1.1 for storing user passwords in the admin.userinfo array and the admin.passwordhistory array (if it exists) in encrypted format for any newly registered users. Although the current authentication mechanism works with an older domain which has passwords stored in plain text, it's recommended to either create a new domain or upgrade the domain to the current version to enable password encryption.	373672
Users can now export workbooks to Excel using the File   Export Sheet command with their calendar hierarchy rolled up to the "All" level in the workbook without any error messages.	373198
In global domains, users can now successfully register and un-register measures. Formerly, when measures were unregistered in global domains, the empty database was left undeleted, which forced the application developer to loop through every partition in the domain to delete the empty database.	373045
RPAS 11.1.1 now enforces the restriction that position-level security is not allowed for the CLND hierarchy. RpasInstall was failing when the security dimension and the database were changed for the CLND hierarchy.	372886
Within the wizard process of building a workbook, the back button is now available to move back to previous wizard pages when there are no selections made at the current page. The user can change previous wizard page selections and then move forward through the wizard.	372765
Users can now register alert measures with higher base intersections than the partitioning level of the global domain and run alertmgr with the -findAlerts flag.	372665
Users can now register measures (regmeasure) and insert them into workbooks without errors using Edit   Insert Measure in simple and global domains.	372560

Resolved Issue	Defect
When copying and pasting cells, RPAS code was only checking for cells protected by user locks or by the Calc. Rule Engine. RPAS now also checks if any of the cells are read-only. A new error message states: "All measures must be writeable for paste operation" when copying and pasting to read-only cells in a workbook.	372010
<p>Displayed attribute measure position information within a workbook will now be correctly updated if they are part of the refresh rule group.</p> <p>In addition to the position label, it is possible within RPAS to use a measure to contain a position description. This measure is populated in a new workbook and defaults to the label for non-placeholders. For placeholder positions it is possible to overwrite its description. The attribute measure is one-dimensional and registered as an attribute measure. If the values for the measure are changed through another workbook and the current workbook is refreshed, the attributes in the product hierarchy will get updated even though the measure has the new values.</p>	363462

## Configuration tools – defects fixed, enhancements, and changed functionality

- 1 Made a change to the converter. Now when attempting to convert a pre 11.1.1 configuration, you will be prompted to save a backup of your configuration.
- 2 Made changes to rtkappconfigmeas, to utilize new RPAS API for batch measure registration; this was especially important for global domain creation.
- 3 When building or patching domains, you will no longer see messages in the Installer log for registering measures, unless it was unsuccessful. However, you will still see messages regarding updating measures.
- 4 Remedy defect 372786 – When patching a domain, an error message is displayed when the Installer invokes the RPAS utility reguserdim when re-registering a user-maintained dimension, since it already exists in the domain; however this message is informational only. The wording of the message was changed to say “Warning” instead of “Error”.
- 5 Remedy defect 373229 – corrected a problem with empty rule sets getting into a domain. There is now a check to prevent this.
- 6 Remedy defect 372881 – corrected a problem that was resulting in a Java error when a dimension was removed in the Hierarchy Tool for which a measure was setup in the Data Interface Tool that had that particular dimension as part of its loadintersection.
- 7 Remedy defect 373824 – corrected a problem that was resulting in an IndexOutOfBoundsException when filtering by size in the rule tool and clicking promote/demote arrows to move rules up or down. The up/down arrows are now disabled when a filter is active.
- 8 Remedy defect 372879 – the Refreshable measure property was removed from the Measure tool as the platform no longer supports it.
- 9 Remedy defect 373166 – corrected a problem that was causing changes to not be saved in the rule tool if the only change that was made was to rename all rules.

- 10 Remedy defect 372718 – “None” has been removed from the list of agg types in the measure tool as it is not supported by the platform.
- 11 Remedy defect 372928 – In Workbook tool, changed “Meas” to default to Y axis for new Workbooks and Worksheets.
- 12 Remedy defect 372164 – corrected refresh problems in the Workbook tool.
- 13 Remedy defect 371798 – In the Workbook tool, added validation between the worksheet baseintersection and the hierarchies on the axes.
- 14 Remedy defect 373786 – corrected a problem in the Data Interface tool that was causing the measure start positions to not be calculated correctly.
- 15 Remedy defect 373604 – corrected a problem that was causing the wrong expression to be displayed for editing when a rule filter was being used in the Rule tool.
- 16 Remedy defect 373384 – corrected a problem that was resulting in the Meas hierarchy not staying on the correct axis.
- 17 Remedy defects 373087 and 372941 – corrected problems in the Workbook and Measure tools with dialog boxes not being “fixed” (i.e. if a dialog box was left open, then switched to another application, then came back to the Workbook tool, the dialog was “hidden”.)
- 18 Remedy defect 372940 – If using multiple refresh rule groups in a workbook, the rule group description in the rule tool is used as the rule group label within the RPAS client. Previously, RPAS allowed a maximum of 20 characters for the rule group label to be viewable within the RPAS client; however the rule tool allowed rule group descriptions of 60 characters. The limit in RPAS has been changed to 60 characters.
- 19 Remedy defect 373304 – corrected a problem that was preventing Data Interface to be viewed after modifying hierarchies.
- 20 Remedy defect 373847 – fixed a problem in the Measure Tool with Allowed Aggs getting not being populated when the measure data type changed.
- 21 Remedy defect 348977 – when building a domain with hierarchy data files that are inconsistent with the configuration as specified in the Dimension Tool, such that the files will not load, then the domain creation process will abort with an ERROR message. correctly in the Measure tool.