

SAS DATA VISUALISATION USER GROUP



09.30 – 10.00	Coffee & biscuits
10.00 – 10.15	Introductions
10.15 - 10.45	What's new in SAS Visual Analytics – Rajeeve Narula
10.45 – 11.15	Presentation by Emma Robson (Asda)
11.15 – 11.30	Break
11.30 – 12.00	Introduction to Visual Statistics – John Hawkins
12:00 – 12:30	Networking and Lunch
12:30 – 13:00	Ask the Experts
13:00 – 13.15	Feedback and discussion about future topics - ALL
Close	

WHAT'S NEW IN SAS® VISUAL ANALYTICS 7.1

RAJEEVE NARULA



- **Exploration Enhancements**
 - Support for multiple data sources
 - Advanced filter interactivity (*support for Train of Thought Analysis*)
 - Goal-Seeking
 - Word Cloud with Sentiments Analysis
 - Path Analysis visualization
- **Data Management Enhancements**
 - Support for xlsb and xlsx files
 - Support for Pivotal Hadoop / Impala
 - Parallel Load via SAS Embedded Process
 - Supported : Teradata, Greenplum, Oracle, SAP HANA, Hadoop (Hortonworks and Cloudera)
 - Compression
- **SAS Home in HTML5***
- **Updated SAS Mobile BI Interface**
- **Reporting Enhancements**
 - Printing
 - Filters on Aggregates
 - Global prompts, Prompt container
 - Custom sort
 - Parameterised Calculations
 - Scheduling / Distribution
 - Graphical Enhancements (*Word Cloud, Graph Gallery, Info Window, 100% Stacked Bar Chart*)
 - Alerting Enhancements
 - More statistics (*aggregation options*)
 - % based Ranks
- **Administration Enhancements**
 - Audit & usage reporting
 - Multiple server/table selection



EXPLORER

SAS VISUAL ANALYTICS 7.1



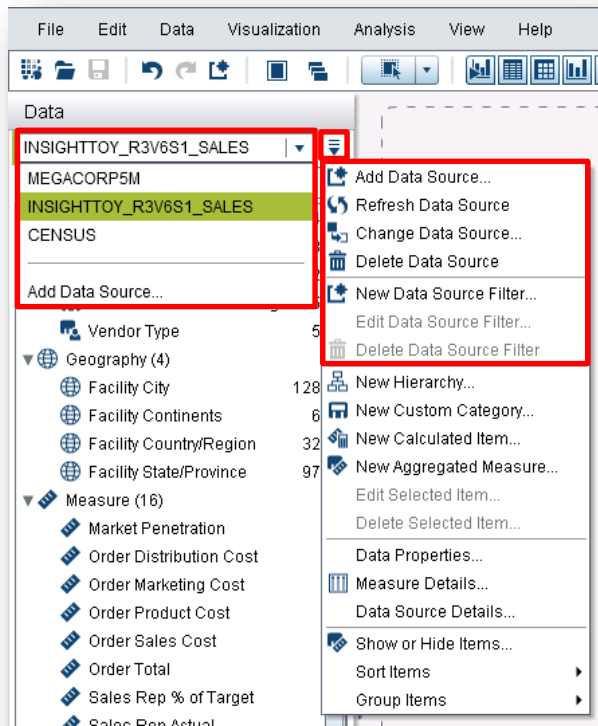
EXPLORER

What's New

- Multiple Data Sources
- Advanced filter interactivity
- Pathing – Sankey Diagrams
- Goal Seeking & Scenario Analysis
- Sentiment – Text Analytics

VA 7.1 EXPLORER

MULTIPLE DATA SOURCES



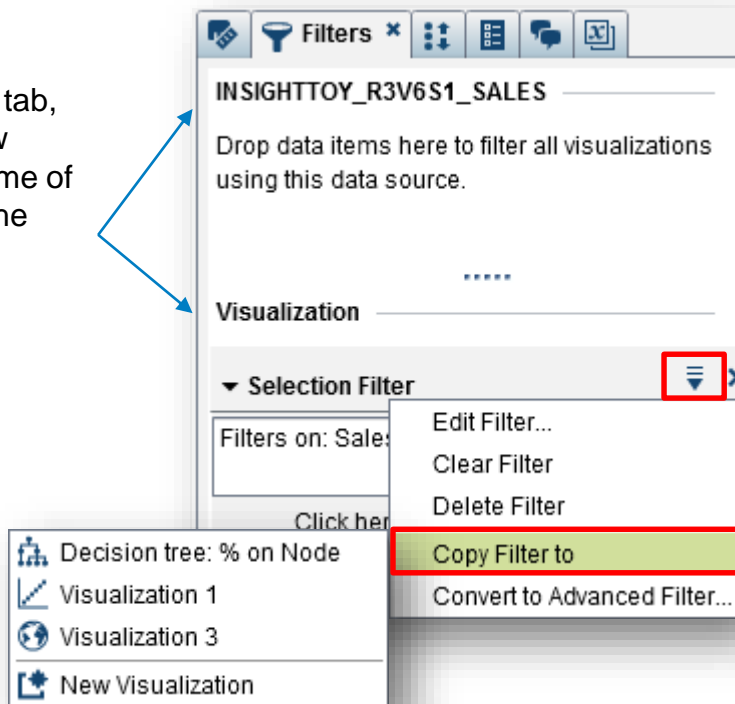
VAE now supports multiple data sources.

A series of new menu options to deal with multiple data sources were also added.

VA 7.1 EXPLORER

COPY FILTER TO OTHER VISUALIZATIONS

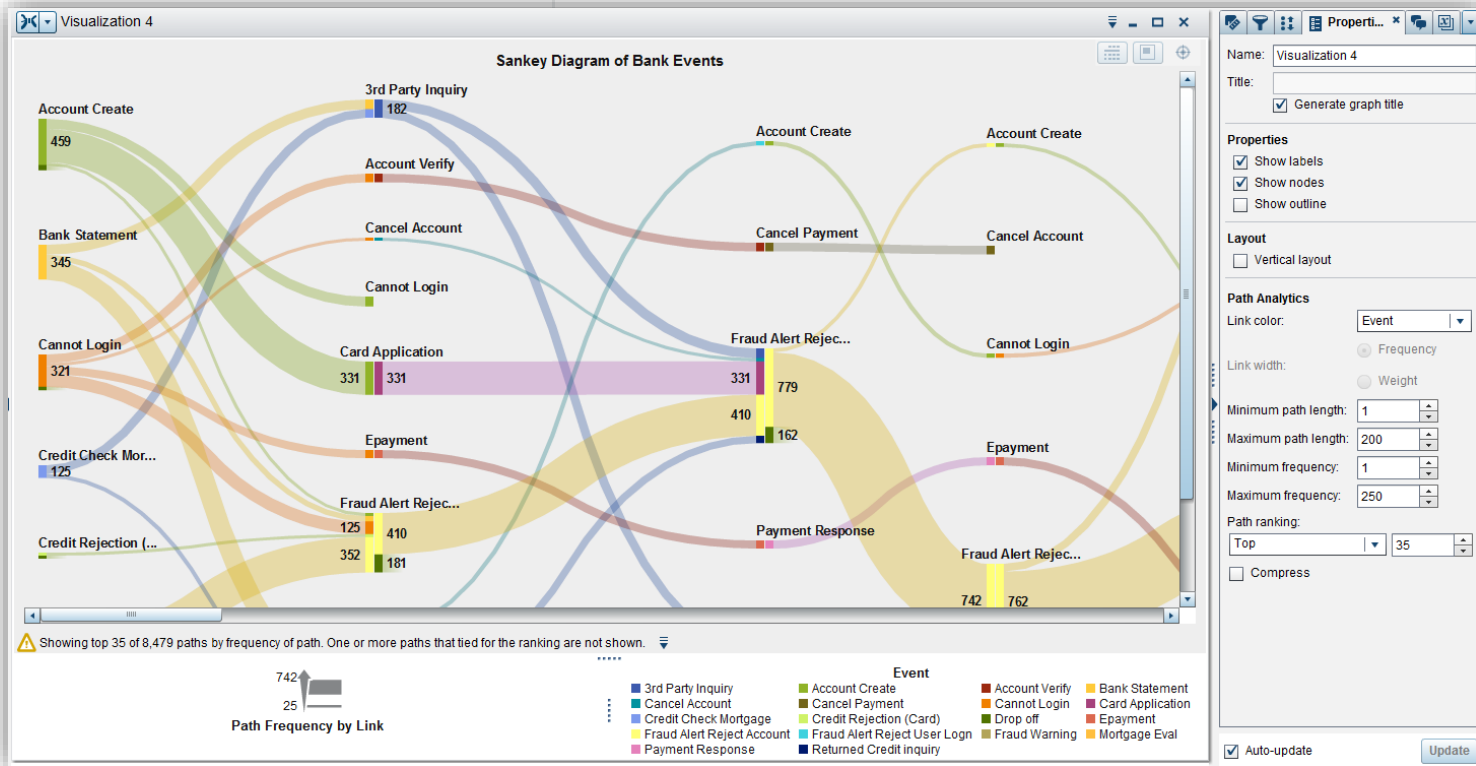
Note: On the **Filters** tab, Global filters are now labeled using the name of the data source for the current visualization. Local filters are now identified as **Visualization** filters.



From the **Filters** tab, local filters (renamed to **Visualization** filters) can be copied to any other visualization that uses the same data source, to help with the data exploration.

VA 7.1 EXPLORER

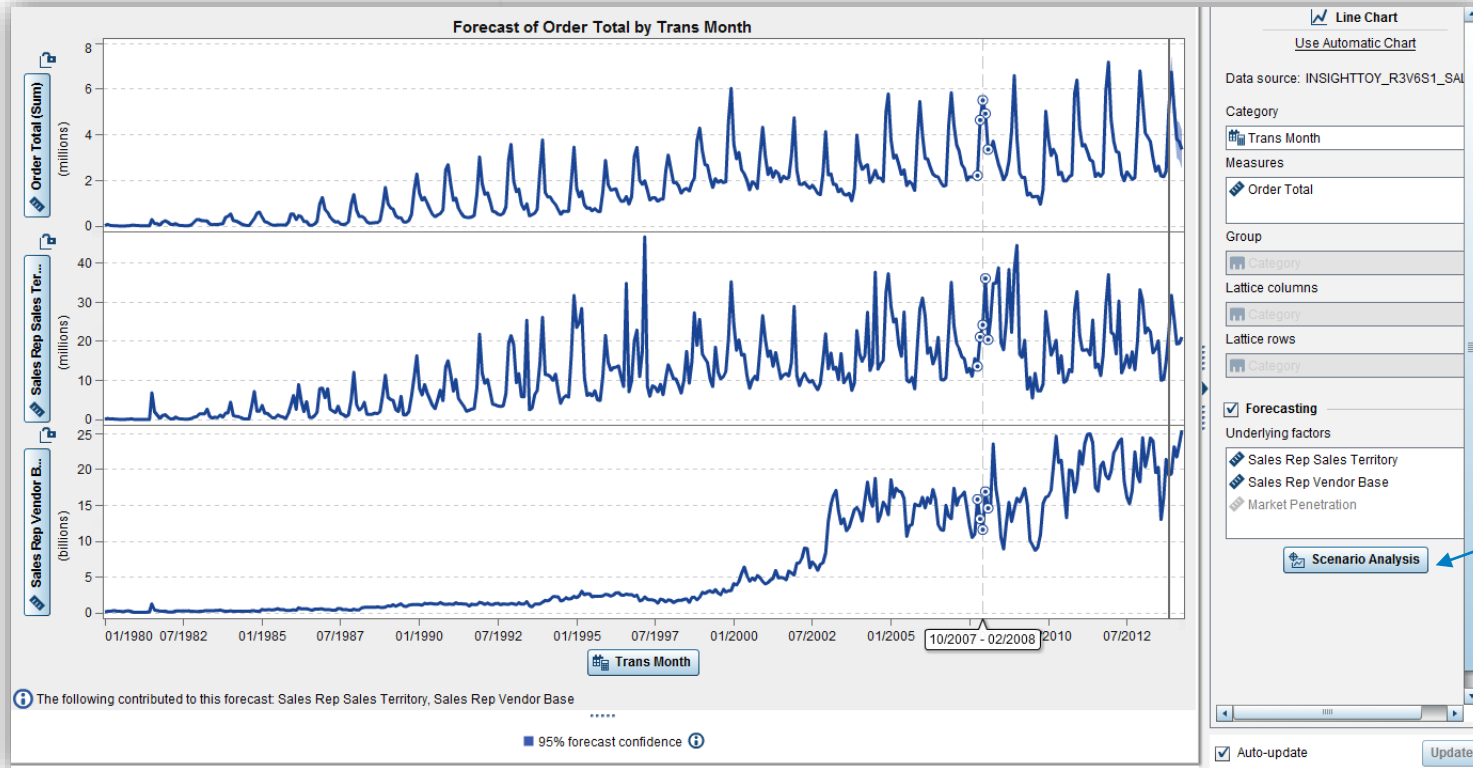
PATHING



To make Sankey diagrams easier to explore, you can use path ranking to show only the top X number of paths.

VA 7.1 EXPLORER

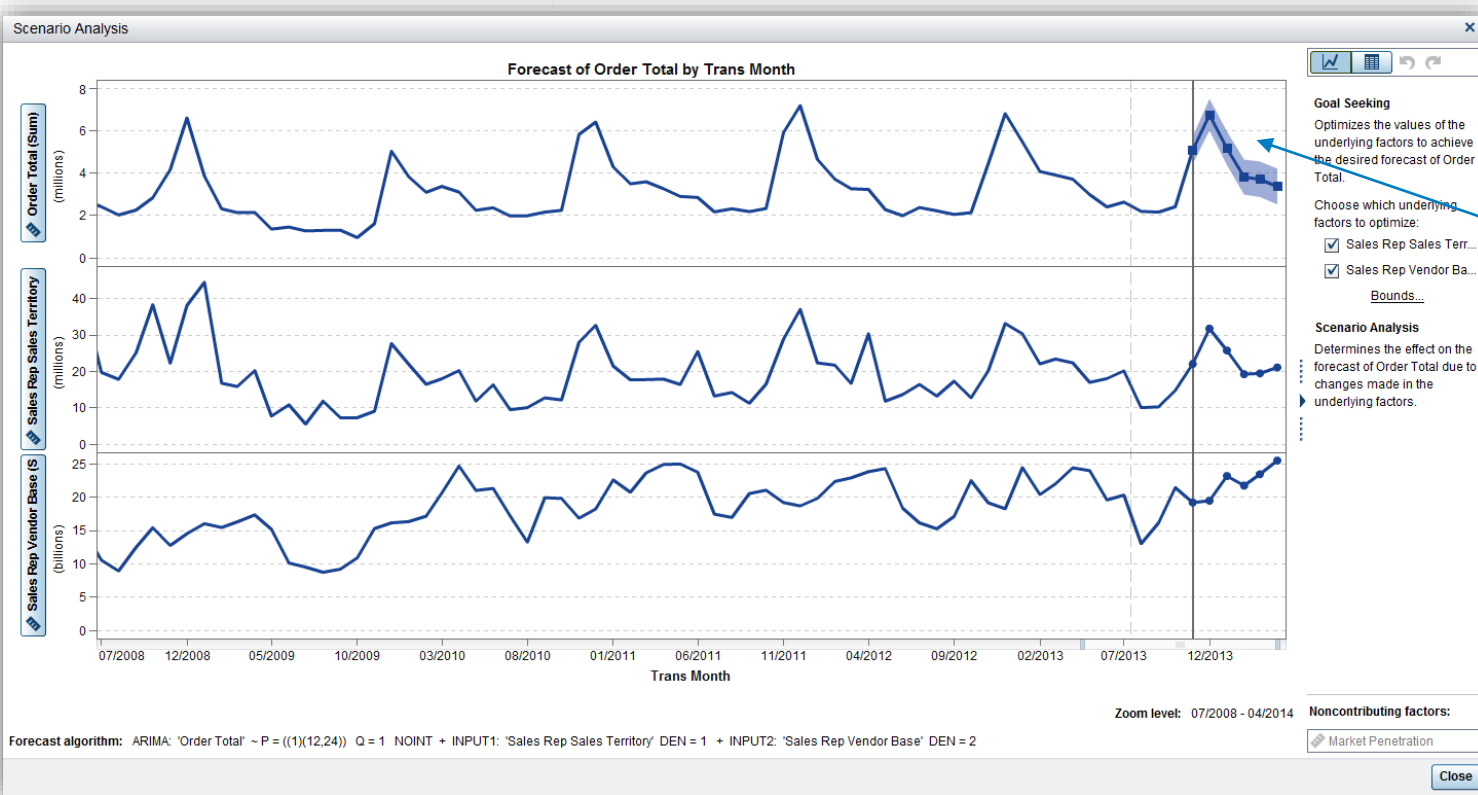
GOAL SEEKING & SCENARIO ANALYSIS



To explore goal seeking & scenario analysis, check the “Forecasting” in the “Roles” panel of the line chart and then click on the new “Scenario Analysis” button.

VA 7.1 EXPLORER

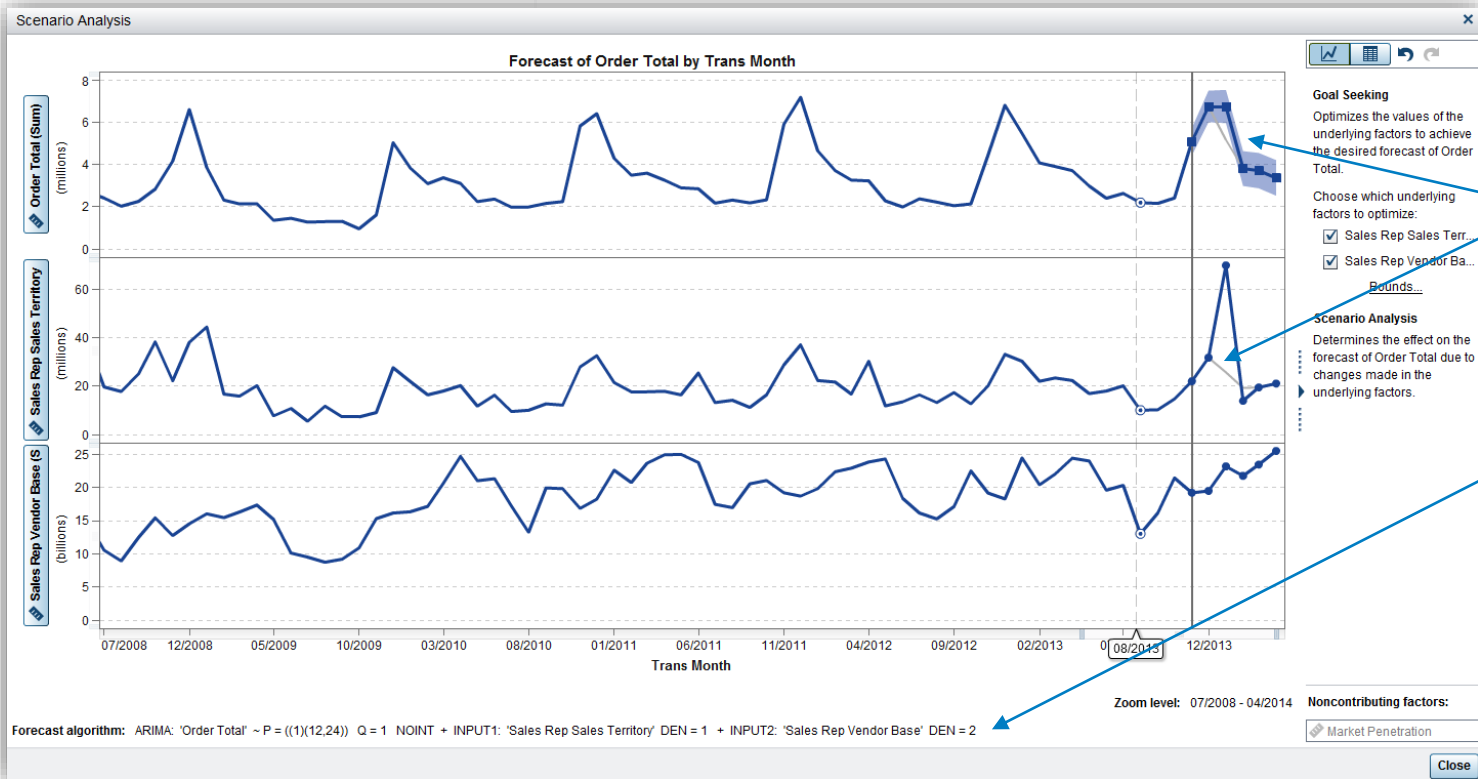
GOAL SEEKING & SCENARIO ANALYSIS



Both goal seeking and scenario analysis can be done by moving the data points to the right of the forecast line.

VA 7.1 EXPLORER

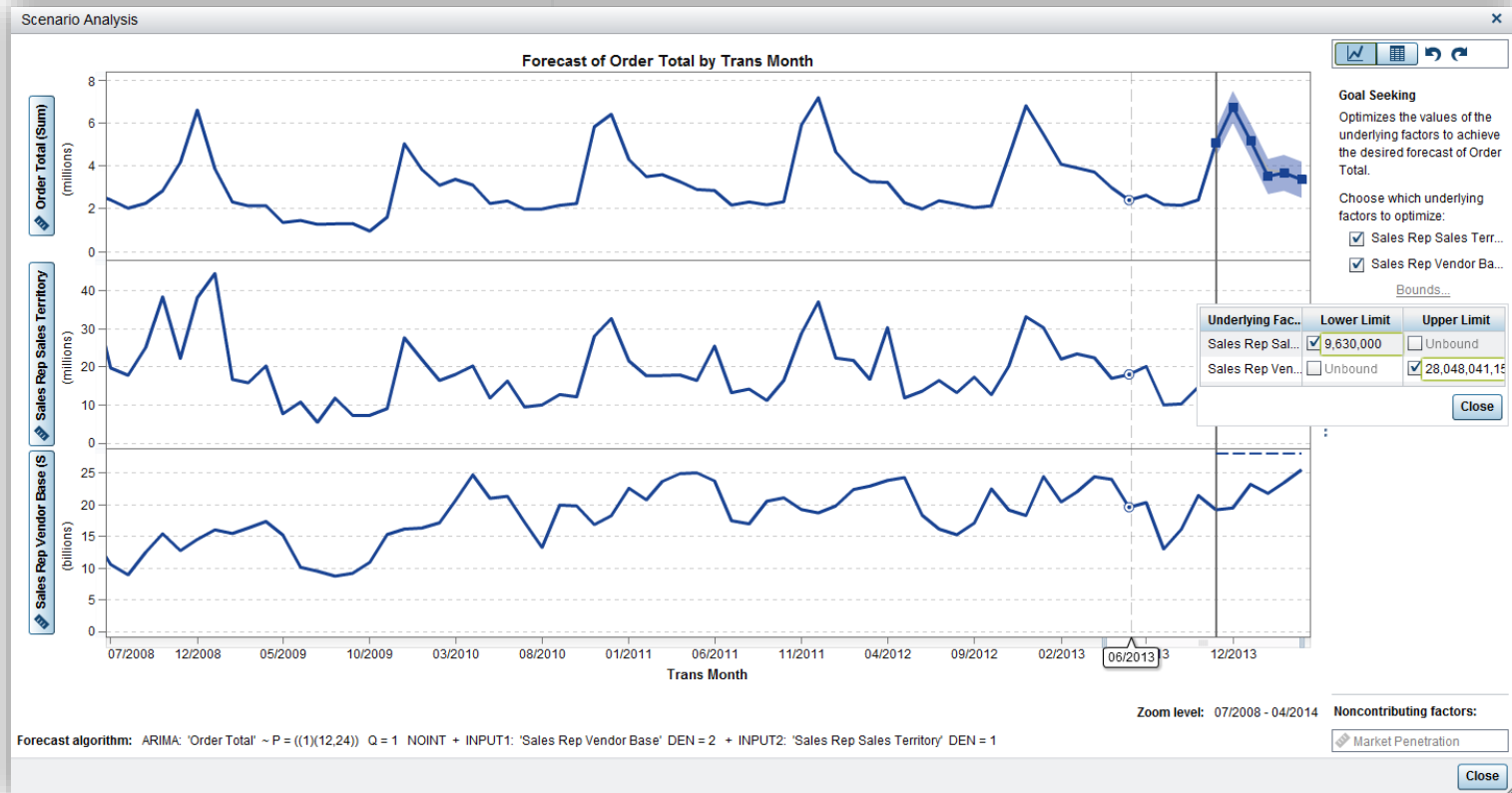
GOAL SEEKING & SCENARIO ANALYSIS



The original data points / forecast is indicated by the gray lines. The new forecast is the blue line. The forecast algorithm can be found at the bottom of the screen.

VA 7.1 EXPLORER

GOAL SEEKING & SCENARIO ANALYSIS



You also have the option to set lower and upper limit for each of the underlying factors.

VA 7.1 EXPLORER

SENTIMENT

Topic: bluetooth, wifi, +clave, para

to, you, +do, +be
ceo, hour-long, fantastic, +interview
+will, at, inkhousepr, rachaelm, tucker
committee, +designer, +design, ex-apple
iphone, and, macformat, uk
youngthrowback, googleplay, saucelord, seekin
+hit, yet, +new, +record
+big, motorola, rival, moto
luxury, leader, +speak, industry
untouched, steve, music, office
bluetooth, wifi, +clave, para

clave
feature
conec

Topic sentiment can now be viewed in the topic selector drop-down menu. Once you select a topic, you are also able to see the sentiment in the top right of the screen.

Sentiment: 😊 7 😐 53 😞 2

Results Topics Documents Analysis

Topic	Positive	Neutral	Negative	Total Documents
to, you, +do, +be	108	327	55	490
ceo, hour-long, fantastic, +interview	334	18	0	352
+will, at, inhousepr, rachaelm_tucker	57	228	22	307
committee, +designer, +design, ex-apple	57	204	17	278
iphone, and, macformat, uk	41	208	21	270
youngthrowback, googleplay, saucelord, seekin	43	205	16	264
+hit, yet, +new, +record	28	212	24	264
+big, motorola, rival, moto	53	130	14	197
luxury, leader, +speak, industry	34	122	17	173
untouched, steve, music, office	29	126	14	169
bluetooth, wifi, +clave, para	7	53	2	62

The topic table shows document count by sentiment as well as the total number of documents for a topic.

Total Documents: 36

Filter by: ☒ ☒ ☒ ☒ ☒ ☒

body	Sentiment	Relevance
Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL) http://t.co/YspGqxjsTW	😊 0.50	0.35
Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL): An unnamed former Apple e... http://t.co/PpmpXGCna6	😊 0.50	0.35
Did Apple, Inc. Let Us Down With These 3 Missing iPhone 6 and Apple Watch Features? http://t.co/CgFMKbmNaC - \$AAPL	😡 0.40	0.35
"Younite" Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL) http://t.co/b32cXm4Tu4	😊 0.50	0.35
Fitness Buffs Should Be Super Excited About The Apple Watch (AAPL) http://t.co/cnoKwGorMn	😊 0.60	0.35
Apple Inc. (AAPL) Will Dominate SmartWatch Market In 2015, But Do Customers ... - Dazeinfo http://t.co/A95YEWxscm #Wearable #SmartWatch	😊 0.50	0.35
\$AAPL Watch 'Good Enough,' Says UBS, But What Is It Meant to Do ? http://t.co/ZfbEezzvG7	😊 0.50	0.35
Apple: Pay And Watch Offerings Unlikely To Move The Needle http://t.co/4EOCus2ACT \$AAPL	😊 0.50	0.35
Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL): An unname... http://t.co/n3IZxAcRKJ #TeamFollowBack	😊 0.50	0.35
Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL) http://t.co/ulK4adtzmZv	😊 0.50	0.35

You can view sentiment by document in the Documents tab. You can also filter by sentiment in here.

What's New

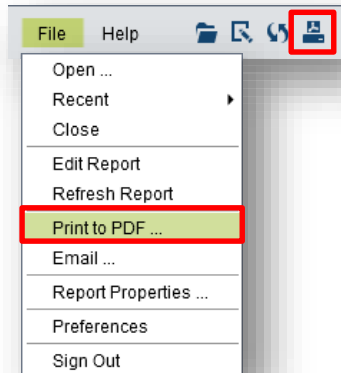
DESIGNER

- Print to PDF
- Scheduled report distribution
- Define custom sort order for category data items
- Linked popup sections, called Info Windows for additional details or context
- Additional aggregation types

VA 7.1 DESIGNER

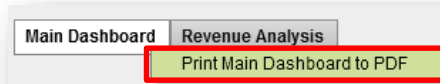
PRINT TO PDF

Print the Report



Report print option is available from the **File** menu and also from the **print icon** in the Report Viewer.

Print the Section



Section print option is available from the pop-up menu when **right clicking in the section tab**

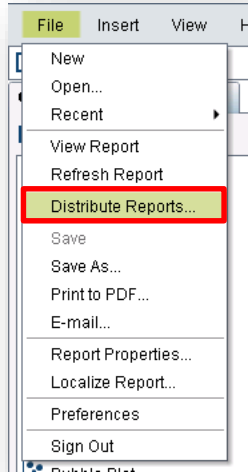
Print the Object



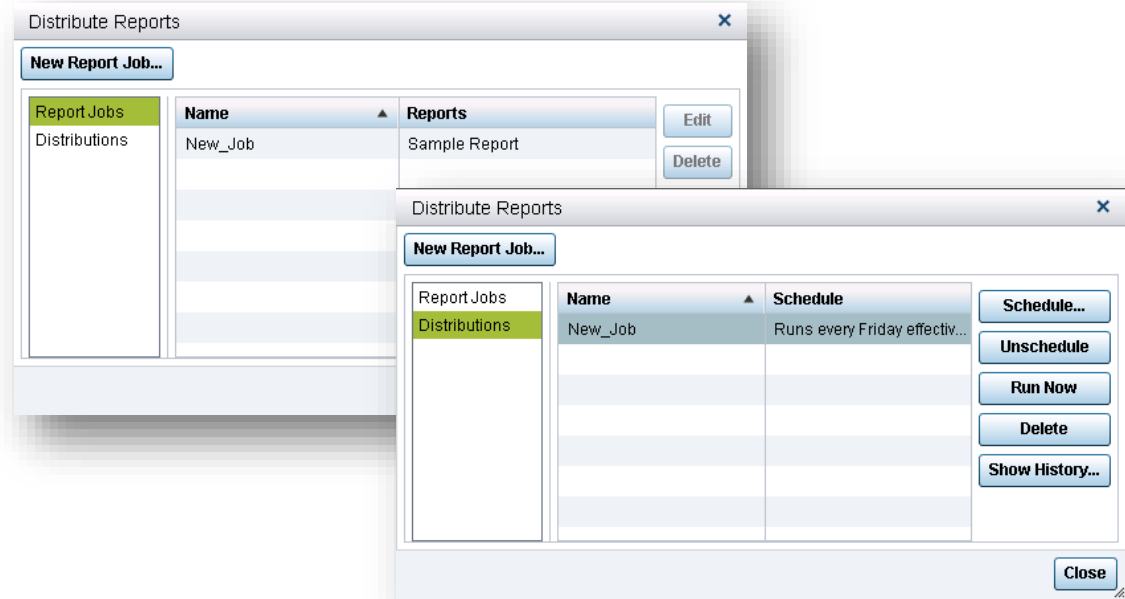
Object print option is available from pop-up menu when **right clicking on the object**

VA 7.1 DESIGNER

REPORT DISTRIBUTION VIA EMAIL



Report distribution option is available in the **Designer** (not Viewer) under the **File** menu

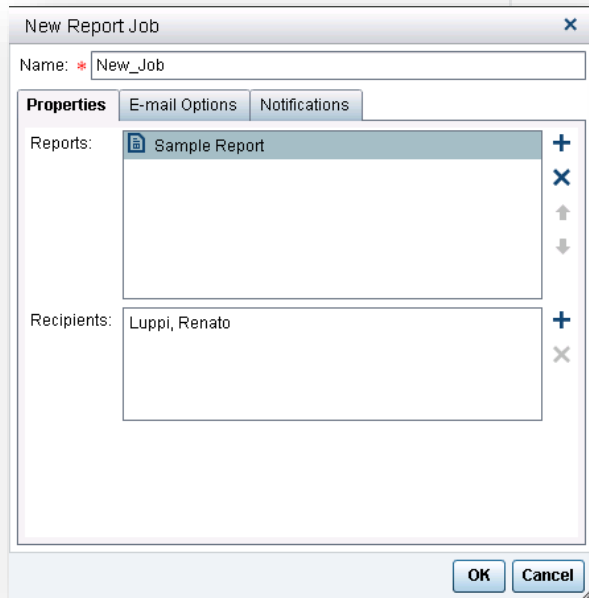


Report distribution is defined by two elements:

- Report Job
- Distribution (scheduling)

VA 7.1 DESIGNER

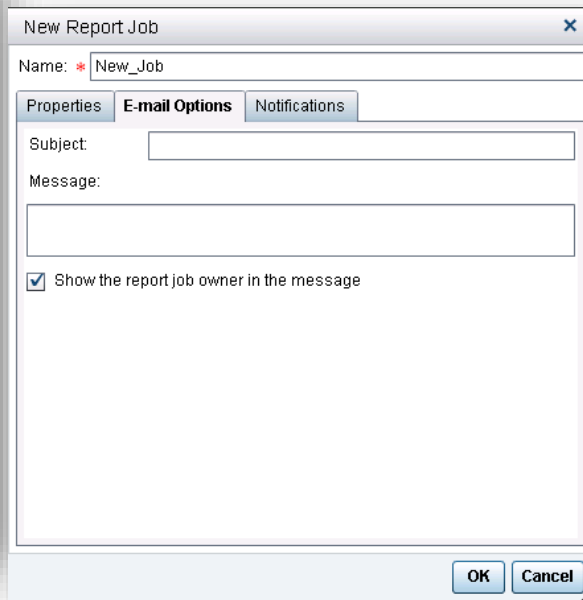
REPORT DISTRIBUTION VIA EMAIL (CONTINUED)



The 'New Report Job' dialog box is shown with the 'Properties' tab selected. The 'Name' field contains 'New_Job'. Under 'Reports', a list contains 'Sample Report'. Under 'Recipients', the text 'Luppi, Renato' is entered. At the bottom are 'OK' and 'Cancel' buttons.

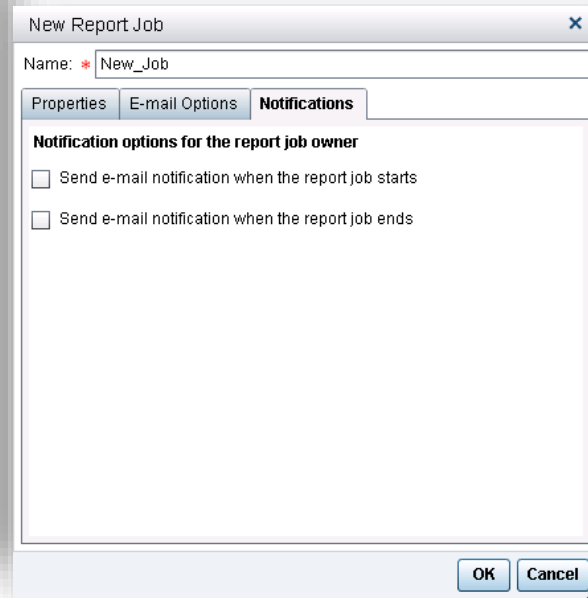
Report Job Properties:

- Jobs can have **one or more reports**
- Recipients need to have **personal identity metadata** (no group identity in this release)



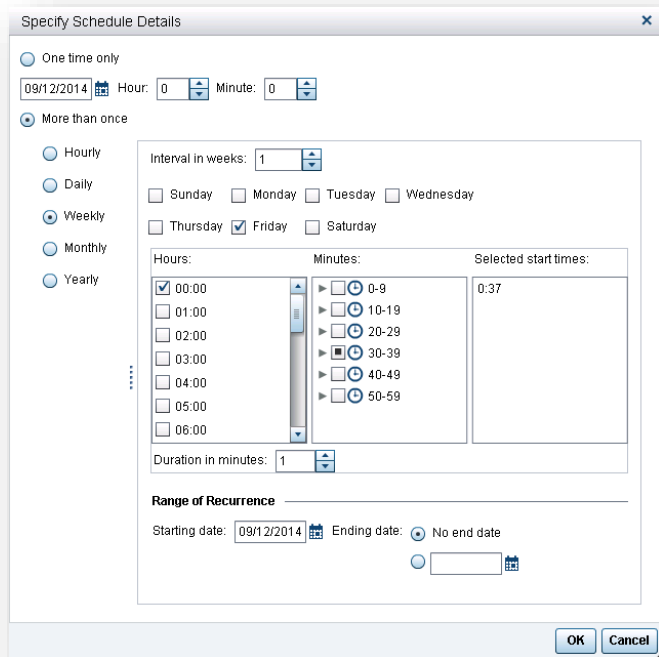
The 'New Report Job' dialog box is shown with the 'E-mail Options' tab selected. The 'Name' field contains 'New_Job'. The 'Subject' and 'Message' fields are empty. A checkbox labeled 'Show the report job owner in the message' is checked. At the bottom are 'OK' and 'Cancel' buttons.

Enter e-mail options, such as subject and message



The 'New Report Job' dialog box is shown with the 'Notifications' tab selected. The 'Name' field contains 'New_Job'. Under 'Notification options for the report job owner', there are two unchecked checkboxes: 'Send e-mail notification when the report job starts' and 'Send e-mail notification when the report job ends'. At the bottom are 'OK' and 'Cancel' buttons.

Job owner can choose to receive notifications when job **starts or ends**



The 'Specify Schedule Details' dialog box is shown. It has a title bar with a close button. The 'One time only' radio button is selected. Below it, the date is '09/12/2014', and the time is 'Hour: 0 Minute: 0'. The 'More than once' radio button is also present. Under 'More than once', the 'Weekly' radio button is selected. The 'Interval in weeks' is set to '1'. The days of the week are listed with checkboxes: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday (checked), and Saturday. Below this, there are three columns: 'Hours', 'Minutes', and 'Selected start times'. The 'Hours' column has a list from 00:00 to 06:00, with 00:00 checked. The 'Minutes' column has a list from 0-9 to 50-59, with 0-9 checked. The 'Selected start times' column shows '0:37'. Below these columns is a 'Duration in minutes' field set to '1'. At the bottom, there is a 'Range of Recurrence' section with 'Starting date: 09/12/2014' and 'Ending date: No end date' (selected). There are 'OK' and 'Cancel' buttons at the bottom right.

Specify Schedule Details

☐ One time only

09/12/2014 Hour: 0 Minute: 0

☐ More than once

☐ Hourly

☐ Daily

☒ Weekly

☐ Monthly

☐ Yearly

Interval in weeks: 1

☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday

☐ Thursday ☒ Friday ☐ Saturday

Hours: Minutes: Selected start times:

☒ 00:00 ☐ 01:00 ☐ 02:00 ☐ 03:00 ☐ 04:00 ☐ 05:00 ☐ 06:00

☐ 0-9 ☐ 10-19 ☐ 20-29 ☒ 30-39 ☐ 40-49 ☐ 50-59

0:37

Duration in minutes: 1

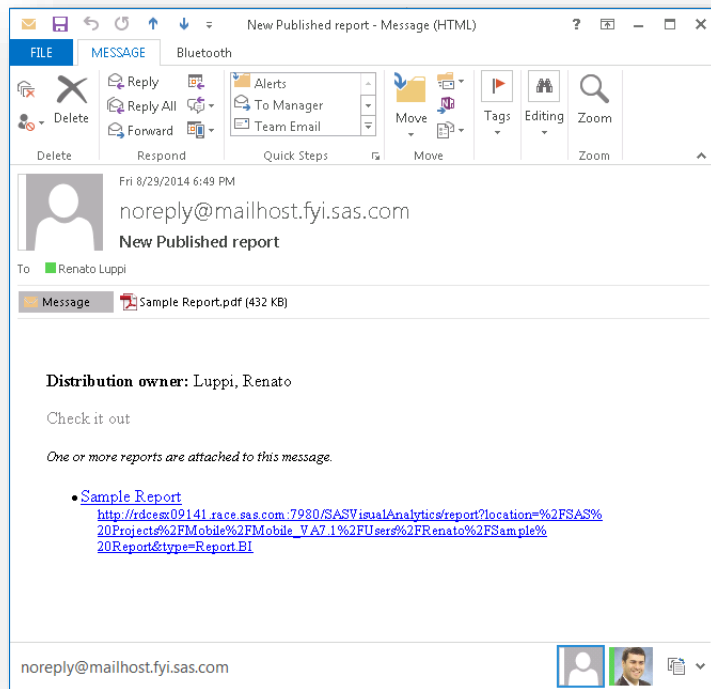
Range of Recurrence

Starting date: 09/12/2014 Ending date: ☒ No end date ☐

OK Cancel

Schedule Details interface offers the flexibility to execute the job **once** or on a **recurrent basis**.

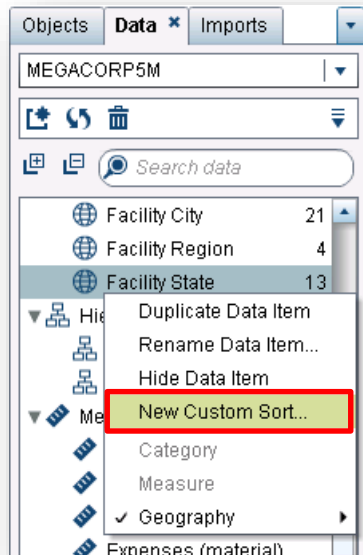
Jobs are executed with the **credentials of the recipients** to guarantee proper security access, including row-level security.



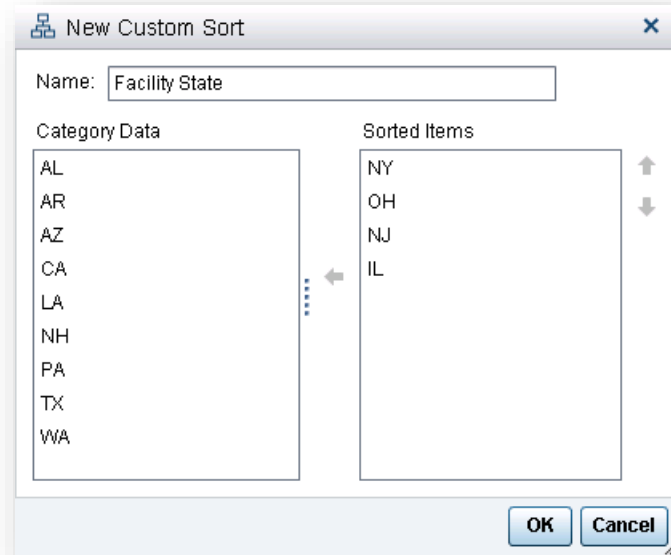
The email distribution contains the report attached as **PFD** as well as the **URL to the live report**.

If the job contains multiple reports, **only one email is received** with multiple attachments and URL's.

The PDF is the same as if the user had printed the report. For **Stack Containers**, only the **first object** is printed.



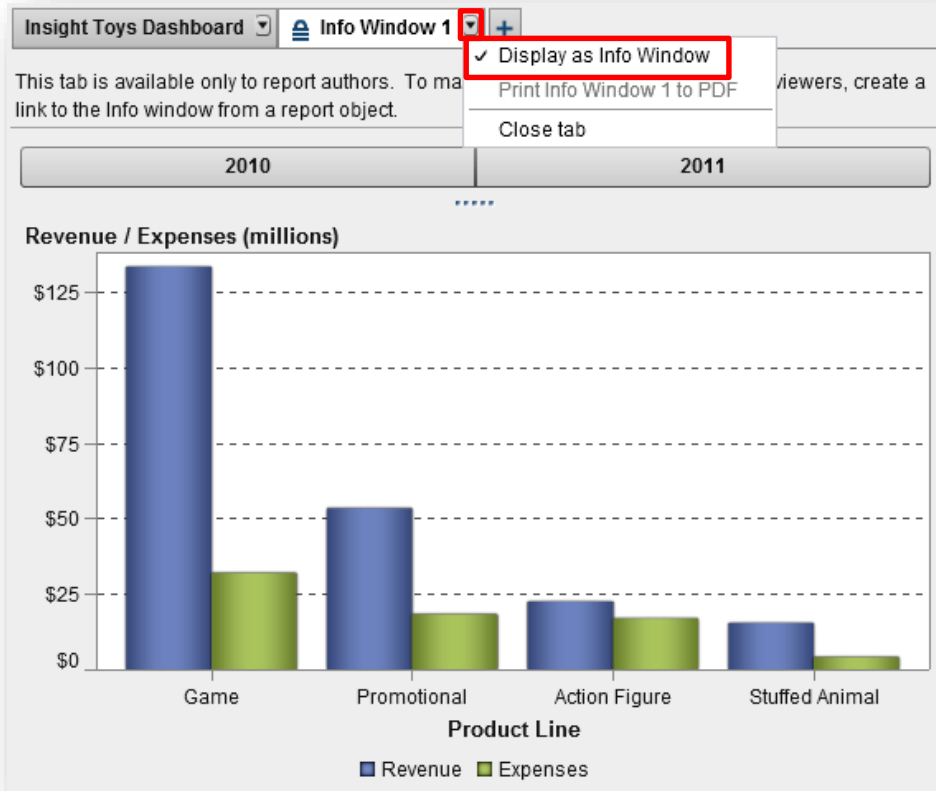
Custom sort is available for data items classified as **category** (except date/time), including **geography**



Just select the values you are interested in and put them in sequence


VA 7.1 DESIGNER

LINKED INFO WINDOW

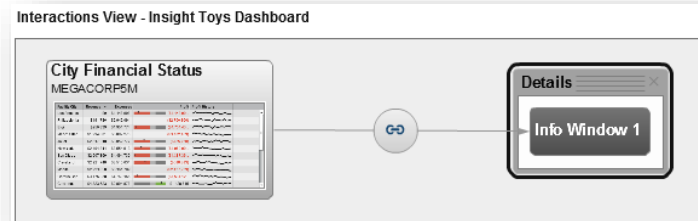


Like a report section, **Info Windows** are visible as tabs in VA Designer, but not in VA Viewer.

To create an Info Window, select **Display as Info Window** from the section tab drop down menu.

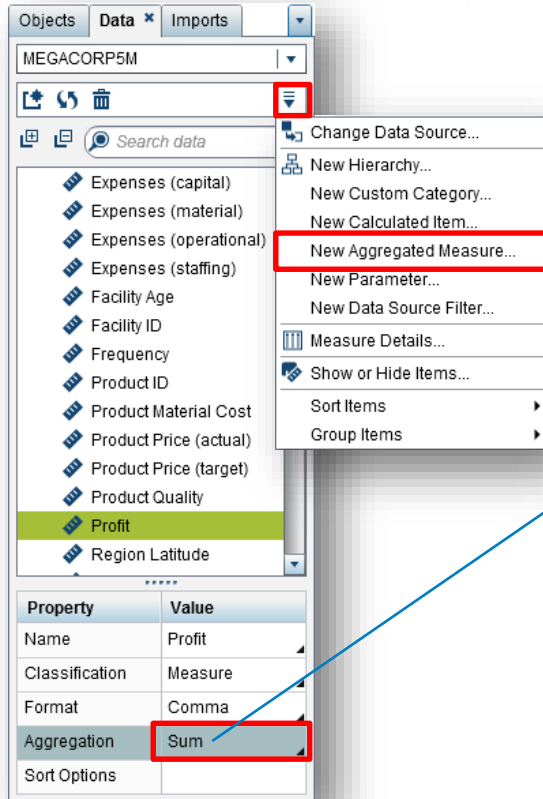
A section that has been set as an Info Window is represented with the icon  in its tab.

To make an Info Window available as a pop-up window in the Viewer, report authors must create a **section link** to the Info Window from a report object:

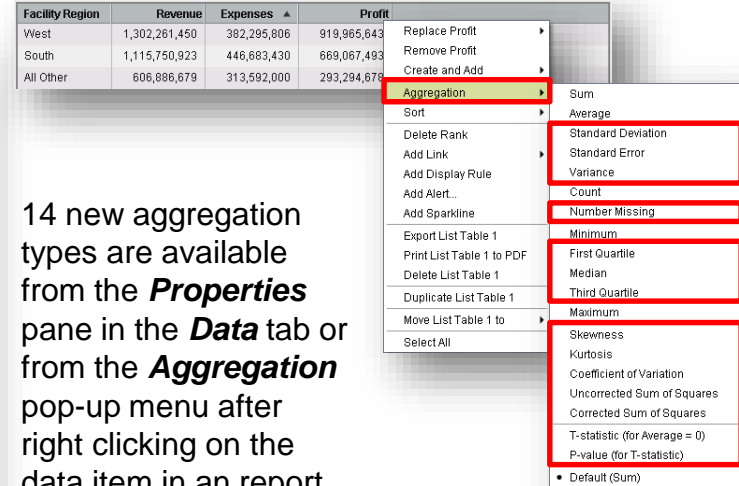


VA 7.1 DESIGNER

ADDITIONAL AGGREGATION TYPES



Sum
Average
Standard Deviation
Standard Error
Variance
Count
Number Missing
Minimum
First Quartile
Median
Third Quartile
Maximum
Skewness
Kurtosis
Coefficient of Variation
Uncorrected Sum of Squares
Corrected Sum of Squares
T-statistic (for Average = 0)
P-value (for T-statistic)

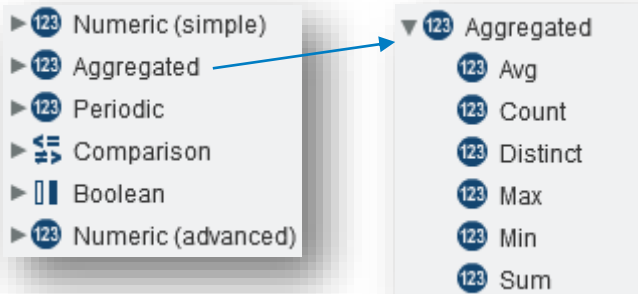


14 new aggregation types are available from the **Properties** pane in the **Data** tab or from the **Aggregation** pop-up menu after right clicking on the data item in an report object.

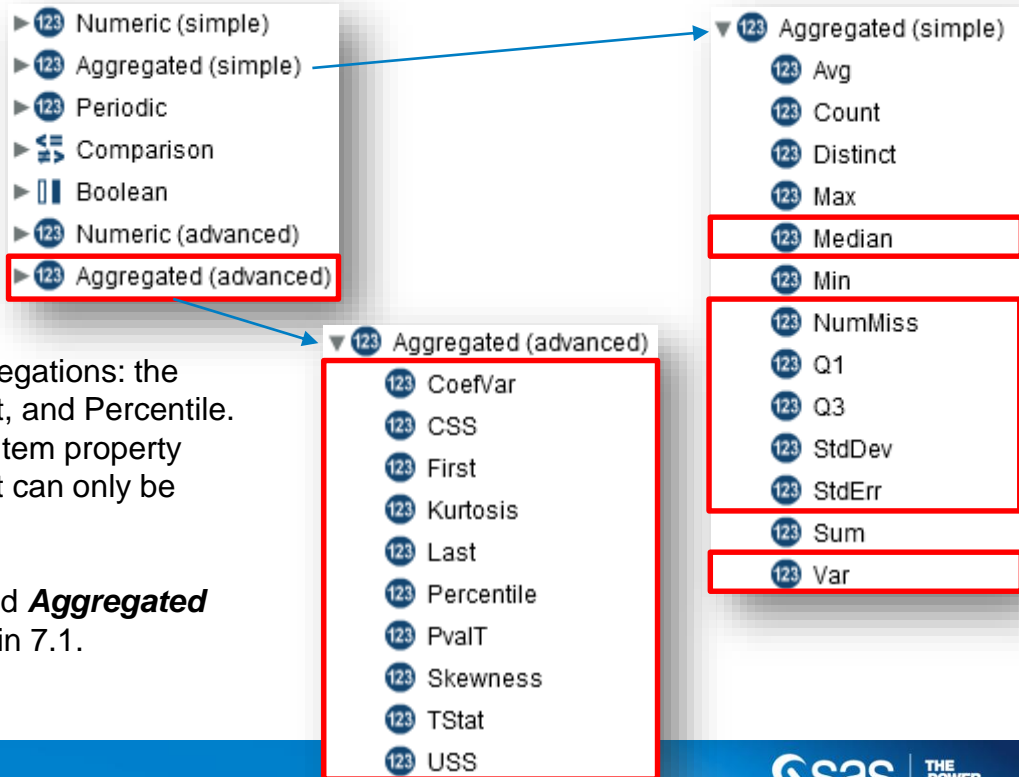
They are also available in the **New Aggregated Measure** interface (see next slide).

Those new aggregations were also added to VAE.

VA 6.4



VA 7.1



The **Aggregated Measure** interface has 17 new aggregations: the same 14 available in the previous slide plus First, Last, and Percentile. Those three aggregations are not available as a data item property because they depend on an additional parameter that can only be informed in the **Aggregated Measure** window.

Those new aggregations are found in the groups called **Aggregated (simple)** and **Aggregated (advanced)**, which is new in 7.1.

They are also available in VAE.

**What's New
(Other filter-related
enhancements)**

- Post aggregation filters
- Override min/max on slider controls (auto populate)
- Rank by %

POST-AGGREGATION FILTERS

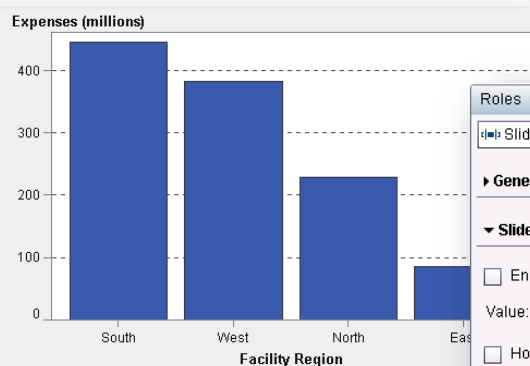
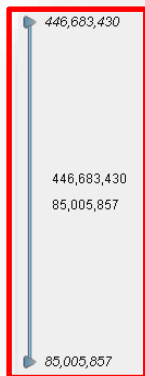
Controlled by option **Filter aggregated values**, post-aggregation filters are available in the **Filter** tab for simple filters (not Advanced) and **only for filters based on measures** (calculated or not).

If the filter is applied on an aggregated measure, it implies post-aggregation, therefore the option is pre-selected and disabled.

The screenshot shows the 'Filters' tab in the SAS VA 7.1 Designer. It displays three filter configurations for 'List Table 1'. Each configuration has a 'Filter aggregated values' checkbox that is checked and disabled (grayed out). A blue arrow points from the text 'the option is pre-selected and disabled' to the first checkbox.

Measure	Filter aggregated values	Min Value	Max Value
Expenses (Sum)	<input checked="" type="checkbox"/> Filter aggregated values	85,005,857	446,683,430
Profit (calc) (Sum)	<input checked="" type="checkbox"/> Filter aggregated values	77,813,475.70	919,965,643.13
Gross Margin % (None)	<input checked="" type="checkbox"/> Filter aggregated values	47.79%	70.65%

The lower and upper limits in the slider will automatically display the min and max values for pre or post-aggregation, depending on how the filter is setup.



Roles Properties **Filters** Ranks

Slider 1

General

Sliders

☐ Enable selection in the viewers

Value: ☐ Single ☒ Range

☐ Horizontal

☒ Interact on the data in view

Set fixed range

Minimum: 85,005,857

Maximum: 446,683,430

Sliders can be **single value or range** (this option is set to single and disabled when a parameter is used with the slider)

Slider Controls added to the report body can be used to filter aggregated values as well. This is controlled by the option **Interact on the data in view**.

Populate Range

Target objects: ☒ Bar Chart 1

☐ List Table 1

Range: 85,005,857 - 446,683,430

VA 7.1 DESIGNER

RANK BY %

Pr... Styl... Dis... Ro... Int... Filt... Ranks x

Bar Chart 1

Date Add Rank

Product

Top Percent

Top Count

Bottom Count

Top Percent

Bottom Percent

☒ Percent 10 %

☐ Parameter

By: Profit

Include: ☒ Ties ☒ All Other

Top and Bottom Percent in addition to existing Count options

Availability of “All Other” in Ranks will vary according to the object as well as the current status of the “All Other” option for filtered results (see table at the end of this section)

What's New (Prompt control enhancements)

DESIGNER

- Report level prompts
- Prompt containers
 - Preserve screen real estate with option to defer application of user selection changes
- Parameters for...
 - Filter expressions
 - Calculation expressions
 - Ranking
 - Display rules

Report prompts can
be hidden to free up
screen real estate

Controls

- ✓ Drop-Down List
- ✗ List
- ✓ Button Bar
- ✓ Text Input
- ✓ Slider

Except for “List”, all
other controls can
be added as a
report prompt. This
is the same for
section prompt.

The screenshot displays the VA 7.1 Designer interface. A red box highlights the top toolbar, which includes a window icon, an 'Auto-update' checkbox, and a 'Show report prompts' checkbox that is checked. Below the toolbar, a grey dashed box contains the text 'Drop controls here to create a report prompt'. Below this, a section header 'Section 1' is followed by a '+' icon. Underneath the section header is another grey dashed box with the text 'Drop controls here to create a section prompt'. Blue arrows point from the 'Controls' list on the left to the dashed boxes in the main workspace.

VA 7.1 DESIGNER

PROMPT CONTAINER

Prompt Containers preserve screen real estate

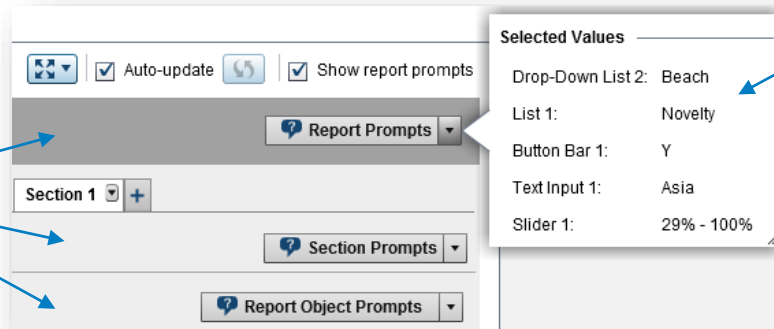
Containers

- Vertical Container
- Horizontal Container
- Stack Container
- Prompt Container**

One or more Prompt Containers can be added as:

- Report-level prompt
- Section-level prompt
- Report object prompt

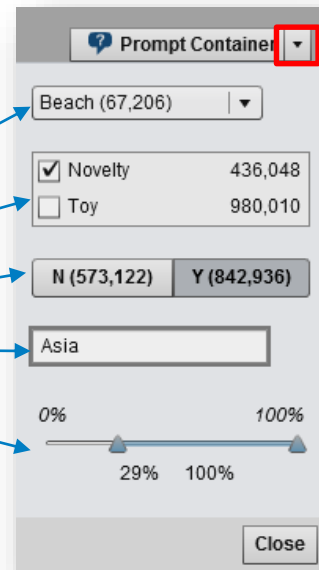
Note: Control objects added to a report object prompt container (as defined here) can have interactions between themselves and other objects in the report. This is not valid for report-level and section-level prompts.



Hover mouse over the prompt container and a callout will display the selected values for all prompts

- ### Controls
- ✓ Drop-Down List
 - ✓ List
 - ✓ Button Bar
 - ✓ Text Input
 - ✓ Slider

All controls, including "List", can be added in a prompt container



VA 7.1 DESIGNER

PROMPT CONTAINER (CONTINUED)

Horizontal

Prompt Container
properties

Vertical

A vertical dialog box titled "Prompt Container". It contains a dropdown menu with "Beach (67,206)", two checked checkboxes "Novelty" (436,048) and "Toy" (980,010), two buttons "N (573,122)" and "Y (842,936)", a text input field with "Asia", a slider from 0% to 100% with a value of 29%, and a "Close" button at the bottom.

Layout:

- Vertical
- Horizontal

Option to defer application
of user selection changes
until *Apply* button is pressed
(option unchecked):

V.S.

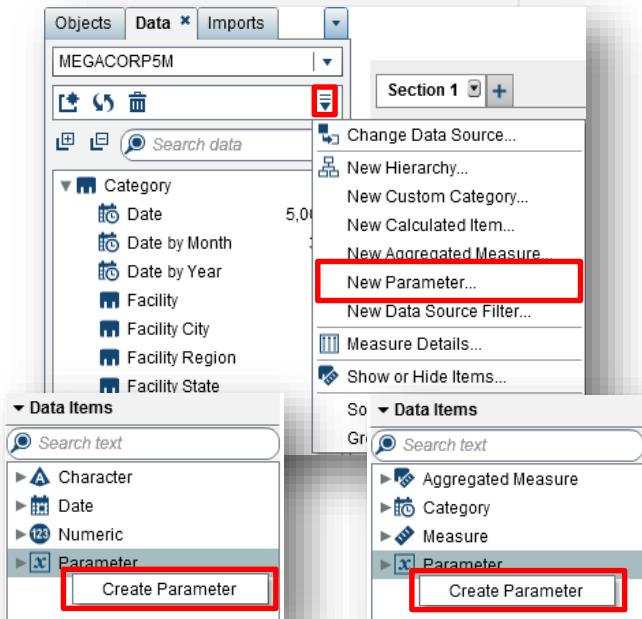
A horizontal dialog box titled "Prompt Container". It contains a dropdown menu with "Beach (67,206)", two checked checkboxes "Novelty" (436,048) and "Toy" (980,010), two buttons "N (573,122)" and "Y (842,936)", a text input field with "Asia", a slider from 0% to 100% with a value of 12%, and "Apply" and "Cancel" buttons at the bottom.

A "Container" properties dialog box. It has a "Layout" dropdown set to "Horizontal", a "Button text" field with "Prompt Container", and a checked checkbox "Automatically apply values". Below is an "Objects" list with items: "Drop-Down List 2", "List 1", "Button Bar 1", "Text Input 1", and "Slider 1". Each item has a small icon and a close button (X) to its right.

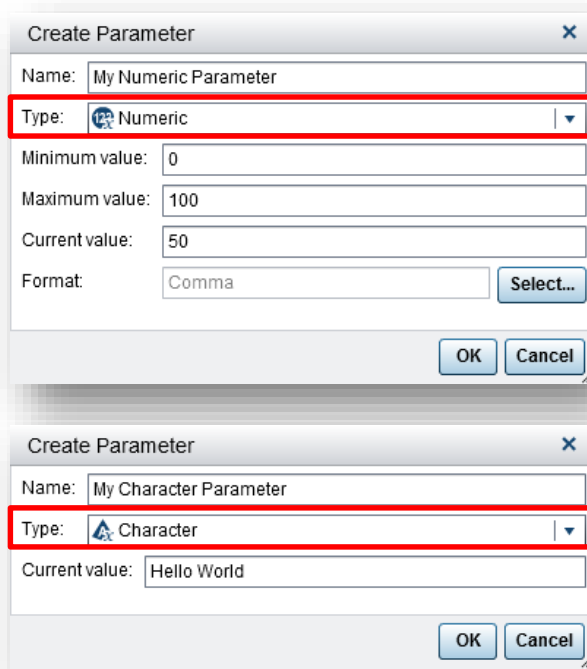
Sequence of appearance
of Control objects can be
managed

VA 7.1 DESIGNER

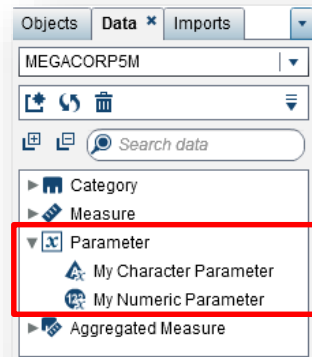
PARAMETERS



Parameters can be created in multiple different places: **Options pop-up menu in the Data tab**, expression builder interface for **calculated items** and **aggregated measures**, and **advanced filters** via right mouse click in the Parameter group.



Parameters can be of type Numeric or Character



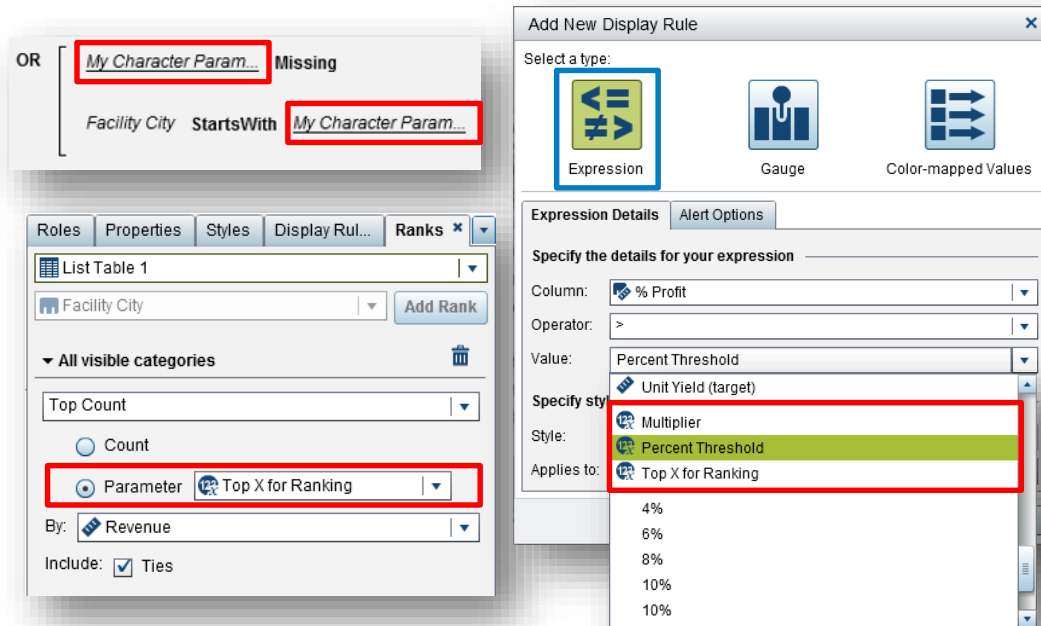
Once created, they show up in the Data tab under the Parameter group

Parameter values are modified by certain report objects (source objects) ...

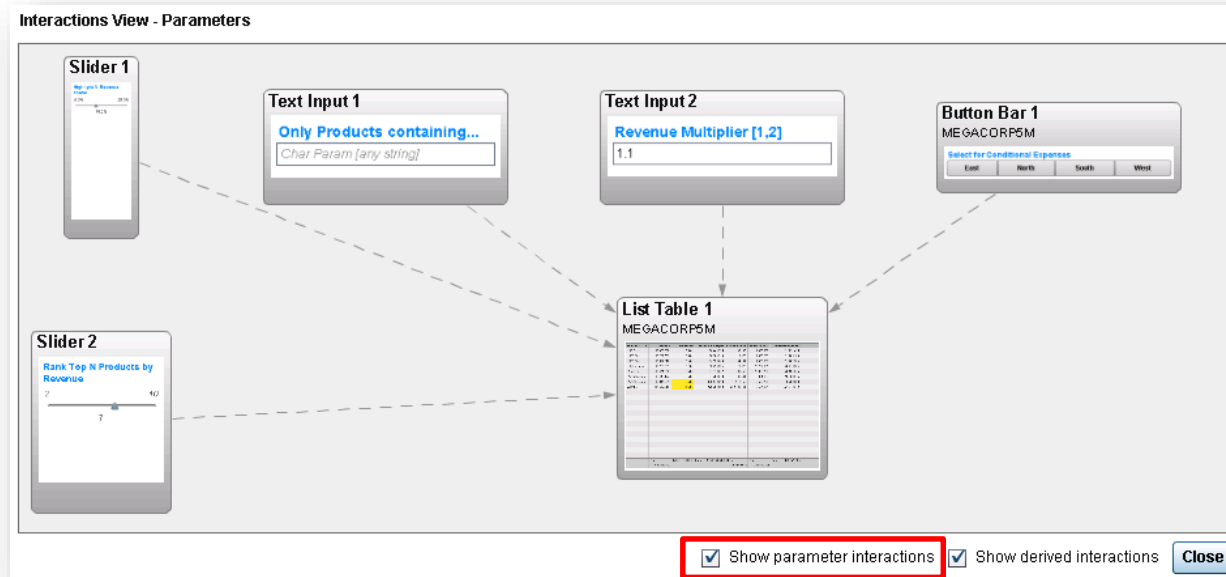


Supported source objects are Controls, except for List. Parameters can hold single value only, so objects like List are not allowed.

... and consumed by target recipients



Supported target recipients are: Ranks, Display Rules (Expression type only), and expressions (in filters, calculated items, and aggregated measures)



Because parameters create interactions between report objects, their relationship can be seen in the **Interactions View**

Note: A single parameter can affect multiple targets, but it can be set by one source object only.

What's New (Visualisation Enhancements)

DESIGNER

- Enhanced animation support
- Word Cloud
- 100% stacked bar chart
- Custom chart gallery
- Rotate x-axis option

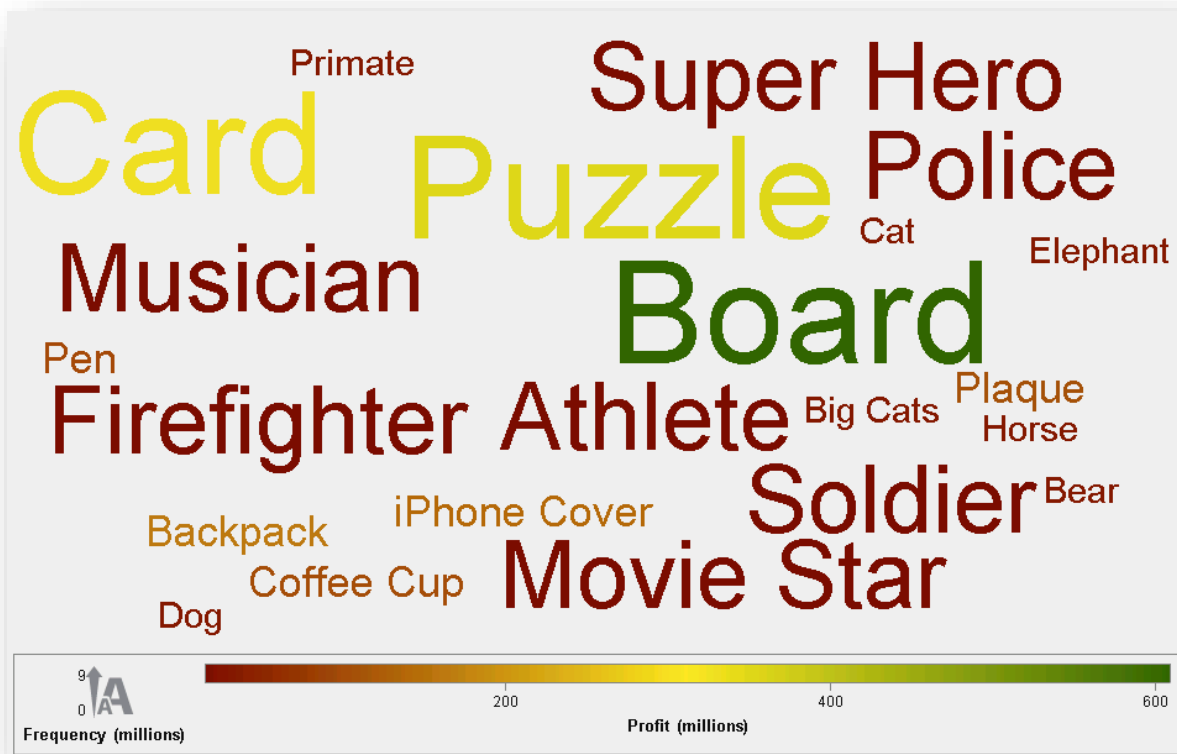
Expanded animation support to include additional chart types and combination with group and lattice rows/columns data item roles:

	Animation (A)	A combined with G and/or L	Supports Group (G)	Supports Lattice (L)
Bar Chart	Yes	New in 7.1	Yes	Yes
Targeted Bar Chart	New in 7.1	New in 7.1		Yes
Line Chart	New in 7.1	New in 7.1	Yes	Yes
Pie Chart	New in 7.1	New in 7.1	Yes	Yes
Bubble Chart	Yes	New in 7.1	Yes	Yes
Dual Axis Bar Chart	New in 7.1	New in 7.1		Yes
Dual Axis Line Chart	New in 7.1	New in 7.1		Yes
Dual Axis Bar-Line Chart	New in 7.1	New in 7.1		Yes
Geo Bubble	Yes			

Word Cloud is a simple visualization type that can be compared to a bar chart in the ability to communicate. What would be represented with the higher bars, in word clouds they would have bigger font size.

This is *NOT* the same as text analytics, as we are aggregating the full content of the data item, and not parsing text within the data item.

Word Cloud in VAD allows other attributes, such as display rules.



100% STACKED BAR CHART SCALING OPTION



▼ Graphs

☒ Enable selection in the viewers

▼ Bar

☐ Show data labels

Direction: Vertical

Grouping style: Stack

Grouping scale: Normalize groups to 100%

☐ Set baseline: Display actual values

Transparency: 0% 100%

▼ Reference Lines

Create new reference line...

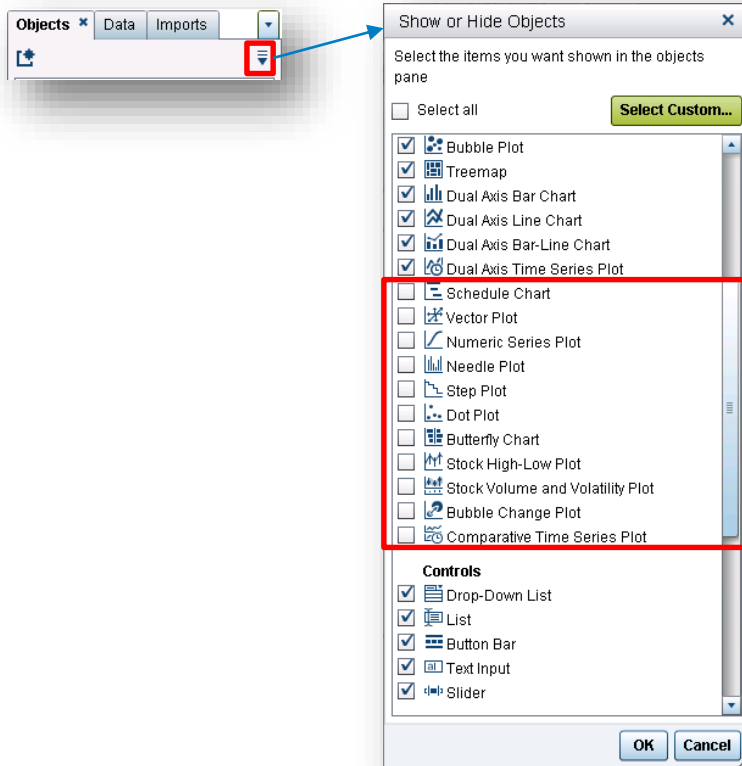
▼ Grid Lines

☒ Show grid lines

Controlled by
Grouping scale
option in the
Properties tab

VA 7.1 DESIGNER

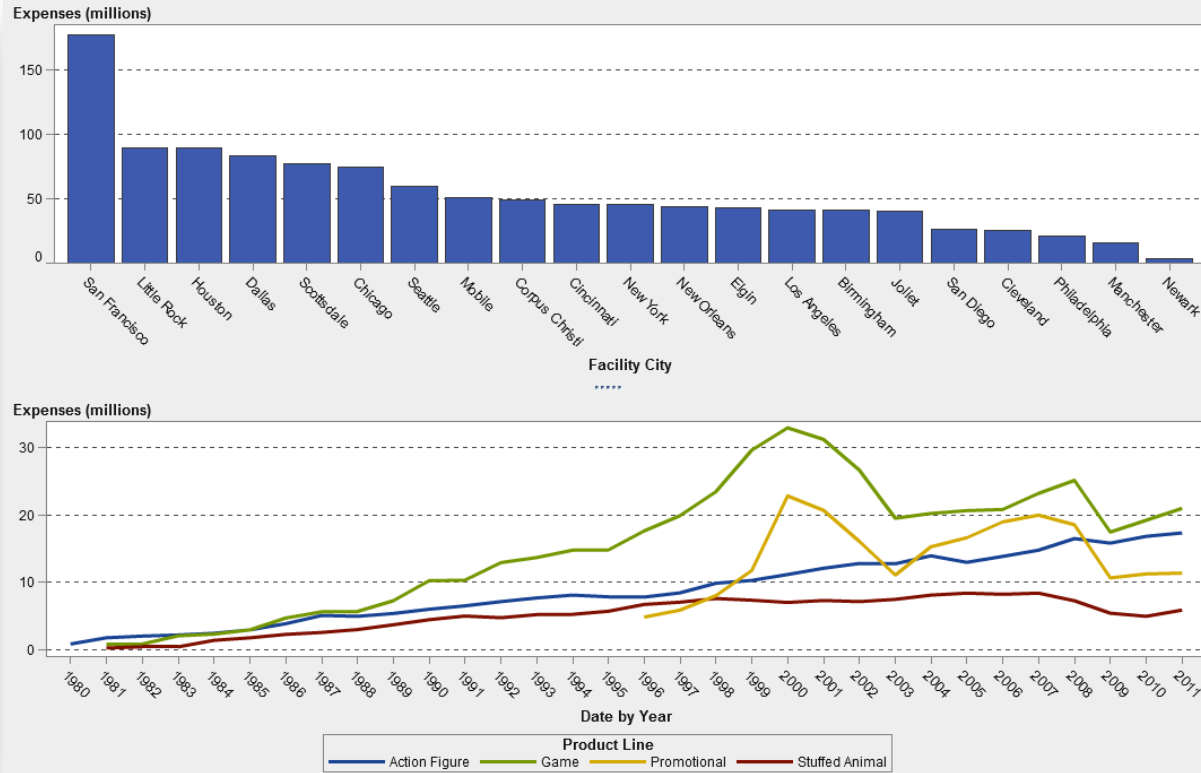
CUSTOM GRAPH GALLERY



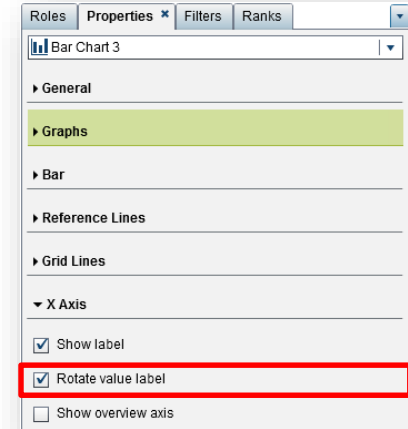
From the **Show or Hide Objects** menu in the **Objects** tab, we can add 11 new graph templates available in the gallery

VA 7.1 DESIGNER

ROTATE X AXIS OPTION



This option is available in the **Properties** tab, under the **X Axis** section and is called “**Rotate value label**”.



What's New (Miscellaneous)

DESIGNER

- Alerting on intersections for crosstabs & hierarchies
- Alerts as text messages
- Option to hide aggregation labels for list table totals
- Container background color and border
- Gauges consolidated in one object
- New sources added to self-service import
- Support for dynamic maps in ESRI

VISUAL DATA BUILDER

SAS VISUAL ANALYTICS 7.1



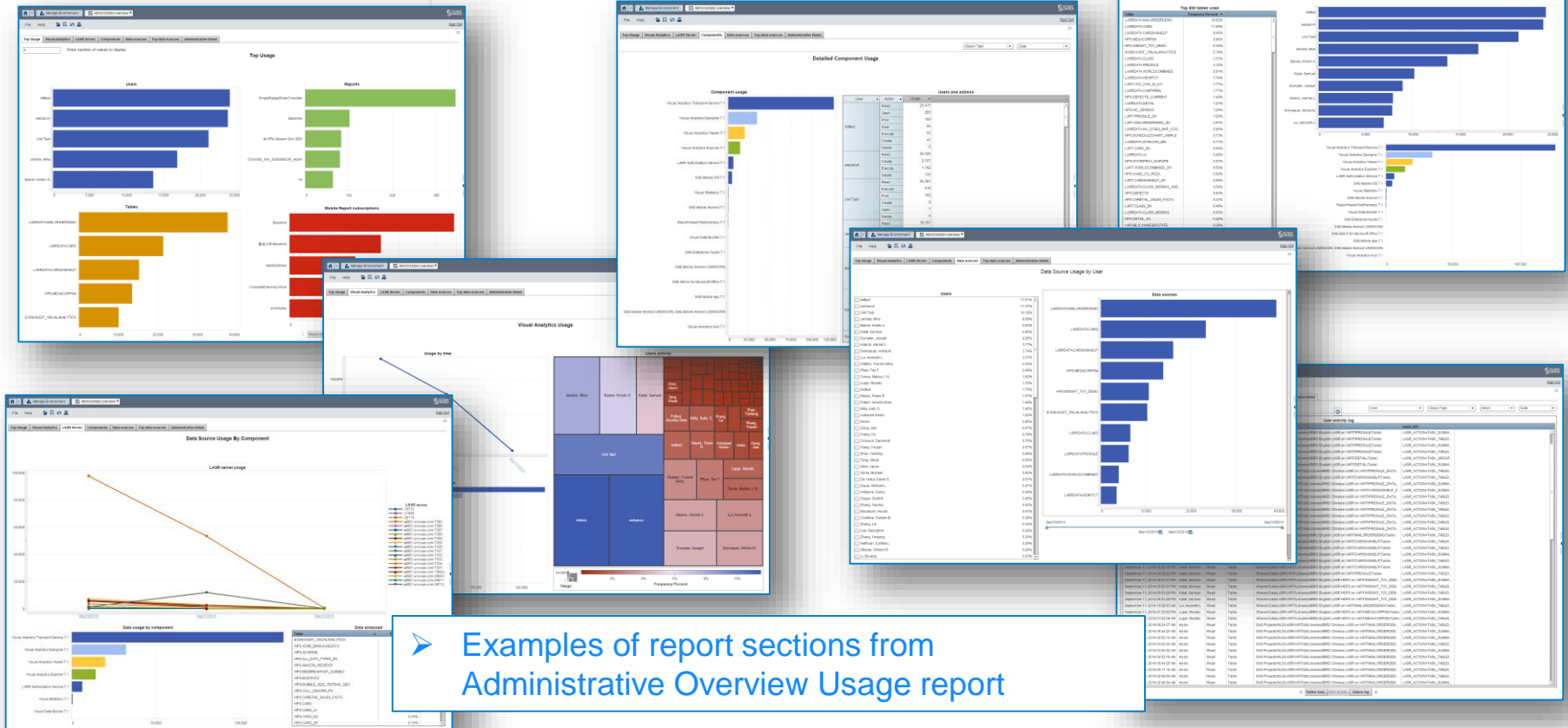
What's New

DATA BUILDER

- New Data Sources: Pivotal HD, Impala
- Parallel Load via SAS Embedded Process
 - Supported : Teradata, Greenplum, Oracle, SAP HANA, Hadoop (Hortonworks and Cloudera)
- Compression options
 - Users with the proper role can compress data, even in self-service
 - Input to LASR star schema must be uncompressed; output table can be compressed
- Other enhancements
 - XLSB, XLSM, any delimiter in text files

VA 7.1 – ADMINISTRATION

USAGE REPORTS



➤ Examples of report sections from Administrative Overview Usage report

VA 7.1 – ADMINISTRATOR

MULTIPLE SERVER SELECTION

Manage Environment

File View LASR Tools Help

30%

Sign Out

Folders

(all types)

SAS Folders

- My Folder
- custom_VAT
- OneBI
- Products
- SAS Projects
- Shared Data
- System
- User Folders
- VASecured Testing

LASR Servers

server	Status	Virtual Memory	Tables Memory (MB)	Tables Limit (MB)	Host	Port	Started By	Description	Started	Accessed
<input checked="" type="checkbox"/> ASR Analytic Server - vat01	●	1%	510.00		vat01.unx.sas...	20043	bcigrd	SAS LASR Anal...	09/10/14 08:30	09/11/14 08
<input checked="" type="checkbox"/> Public LASR Analytic Server - vat01	▲	2%	2,105.56	1,500	vat01.unx.sas...	10043	bcigrd	Visual Analytics...	09/10/14 08:30	09/11/14 03
<input type="checkbox"/> WRD English LASR on VAFIT		14%			vat01.unx.sas...	7300	jaalie		09/11/14 05:36	09/11/14 06
<input type="checkbox"/> WRD English_errorTesting LASR on VAFIT		12%			vat01.unx.sas...	7304				
<input type="checkbox"/> WRD English_highRiskTesting LASR on VAFIT		2%			vat01.unx.sas...	7309		BIRD English_...		
<input type="checkbox"/> WRD English_notormats LASR on VAFIT		0.68%			vat01.unx.sas...	7302				
<input type="checkbox"/> WRD English_printTesting LASR on VAFIT		2%			vat01.unx.sas...	7307		BIRD English_...		
<input type="checkbox"/> WRD English_security LASR on VAFIT		0.67%			vat01.unx.sas...	7306				
<input type="checkbox"/> WRD English LASR for Testing on VAFIT					vat01.unx.sas...	7301				
<input type="checkbox"/> WRD English LASR Autoload on VAFIT		1%			vat01.unx.sas...	7308				
<input checked="" type="checkbox"/> greenway:14275	■				greenway.unx.s...	14275				
<input type="checkbox"/> ms2650:14275					ms2650.unx.s...	14275				
<input type="checkbox"/> vat01:14275	■				vat01.unx.sas...	14275				
<input checked="" type="checkbox"/> WRD Arabic LASR on VAFIT	●	0.72%	21.00		vat01.unx.sas...	7337	stbjlw		09/10/14 05:52	09/10/14 05
<input type="checkbox"/> WRD Chinese LASR on VAFIT		2%			vat01.unx.sas...	7331				
<input type="checkbox"/> WRD French LASR on VAFIT		0.69%			vat01.unx.sas...	7335				
<input type="checkbox"/> WRD Japanese LASR on VAFIT		2%			vat01.unx.sas...	7333				
<input type="checkbox"/> WRD Korean LASR on VAFIT		3%			vat01.unx.sas...	7334				
<input type="checkbox"/> WRD Polish LASR on VAFIT		0.70%			vat01.unx.sas...	7336				
<input type="checkbox"/> WRD Traditional Chinese LASR on VAFIT		0.71%			vat01.unx.sas...	7332				
<input type="checkbox"/> WRD Unicode LASR on VAFIT		2%			vat01.unx.sas...	7330				
<input type="checkbox"/> AA71 Auto LASR Server - en		0.79%			vat01.unx.sas...	38710		VAA 7.1 Automa...		
<input type="checkbox"/> AA71 Auto LASR Server - 国中					vat01.unx.sas...	38711		VAA 7.1 国中北...		
<input type="checkbox"/> AA71 Auto LASR Server - 国中					vat01.unx.sas...	38712		VAA 7.1 国中北...		
<input type="checkbox"/> AA71 Manual LASR Server - 国中		0.60%			vat01.unx.sas...	38717		VAA 7.1 手动国...		
<input type="checkbox"/> General Use LASR Server					vat01.unx.sas...	0		1 hour lifetime l...		
<input type="checkbox"/> VAA LASR vat01 - 16983		0.84%			vat01.unx.sas...	16983		VAA LASR vat0...		
<input type="checkbox"/> VAA LASR vat01 - 17132					vat01.unx.sas...	17132		VAA LASR vat0...		

Perform actions on multiple servers / tables

<input type="checkbox"/> DB_UnitTest_LASR		0.73%			vat01.unx.sas...	22695				
<input type="checkbox"/> JV LASRClient Test		2%			vat01.unx.sas...	24234				
<input type="checkbox"/> DB lasr server nangee					vat01.unx.sas...	29254				
<input type="checkbox"/> Aurali LASR Server		0.60%			vat01.unx.sas...	60594				
<input type="checkbox"/> sas_LASRServices_28801					vat01.unx.sas...	28801		VA LASR Servic...		
<input type="checkbox"/> sas_LASRServices_28802					vat01.unx.sas...	28802		VA LASR Servic...		
<input type="checkbox"/> sas_LASRServices_28811		0.57%			vat01.unx.sas...	28811		VA LASR Servic...		

VA 7.1 – ADMINISTRATOR

MULTIPLE TABLE SELECTION

The screenshot displays the SAS LASR Tables management interface. The interface includes a sidebar with a folder tree, a main table of servers and tables, and a top navigation bar. The table has columns for Server, Status, Virtual Memory, Tables Memory (MB), Tables Limit (MB), Host, Port, Started By, Description, Started, and Accessed. Red boxes highlight the Status, Virtual Memory, Tables Memory (MB), and Tables Limit (MB) columns. A blue callout box contains the following text:

- Can set up table limits, gives over capacity warning
- If overcapacity, then will not load the NEXT file

VA 7.1 – ADMINISTRATION

SAS HOME IN HTML5

The screenshot displays the SAS Home HTML5 interface. At the top, a black navigation bar contains a 'Home' link with a hamburger menu icon on the left and a user profile 'Rajeeve Narula' with a question mark icon on the right. Below the navigation bar, there is a row of five large, colored tiles: 'Browse' (blue with a folder icon), 'Add Application Shortcut' (blue with a plus icon), 'VA Explorer' (blue with a grid icon), 'Report Designer' (red with a report icon), and 'Data Preparation' (orange with a database icon). Each tile has a three-dot menu icon in its top right corner. Below these tiles, the interface is divided into three main sections: 'Recent', 'Favorites', and 'Links'. The 'Recent' section on the left lists seven items, each with a small icon, a title, and a timestamp. The 'Favorites' section in the middle is currently empty, displaying the text 'Favorites are displayed here.' The 'Links' section on the right contains three hyperlinks: 'SAS Support', 'BBC', and 'Transport for London'. A vertical scrollbar is visible on the right side of the interface.

Home Rajeeve Narula

Browse Add Application Shortcut VA Explorer Report Designer Data Preparation

Recent

- [Account Closures and Complaints by R](#)
Jan 30, 2015, 4:05:23 PM
- [Forecasted affordability - Customer Sp](#)
Jan 30, 2015, 1:19:40 PM
- [Customer Overview by Type](#)
Jan 30, 2015, 1:19:38 PM
- [Report 260115](#)
Jan 26, 2015, 4:09:19 PM
- [CNBA Marketing Performance](#)
Jan 20, 2015, 2:39:43 PM
- [SentsCheck iPad](#)
Jan 8, 2015, 1:33:38 PM
- [Exploration 71](#)
Jan 26, 2015, 2:41:01 PM

Favorites

Favorites are displayed here.

Links

- [SAS Support](#)
- [BBC](#)
- [Transport for London](#)

- **Exploration Enhancements**
 - Support for multiple data sources
 - Advanced filter interactivity (*support for Train of Thought Analysis*)
 - Goal-Seeking
 - Word Cloud with Sentiments Analysis
 - Path Analysis visualization
- **Data Management Enhancements**
 - Support for xlsb and xlsx files
 - Support for Pivotal Hadoop / Impala
 - Parallel Load via SAS Embedded Process
 - Supported : Teradata, Greenplum, Oracle, SAP HANA, Hadoop (Hortonworks and Cloudera)
 - Compression
- **SAS Home in HTML5***
- **Updated SAS Mobile BI Interface**
- **Reporting Enhancements**
 - Printing
 - Filters on Aggregates
 - Global prompts, Prompt container
 - Custom sort
 - Parameterised Calculations
 - Scheduling / Distribution
 - Graphical Enhancements (*Word Cloud, Graph Gallery, Info Window, 100% Stacked Bar Chart*)
 - Alerting Enhancements
 - More statistics (*aggregation options*)
 - % based Ranks
- **Administration Enhancements**
 - Audit & usage reporting
 - Multiple server/table selection

What's New

ADD-IN FOR MICROSOFT OFFICE 7.1

- Load data to LASR from EG or AMO
- Panel for interactive view / preview / select results from VA report
- Native Excel charts for stored process charts in VA report
- Extract data behind VA report

ADD-IN FOR MICROSOFT OFFICE

UPLOAD TO LASR TASK

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Make	Model	Type	Origin	DriveTrain	MSRP	Invoice	EngineSize	Cylinders	Horsepower	MPG_City	MPG_High	Weight
2	Acura	MDX	SUV	Asia	All	\$36,945	\$33,337	3.5	6	265	17	23	445
3	Acura	RSX Type	Sedan	Asia	Front	\$23,820	\$21,761	2	4	200	24	31	277
4	Acura	TSX 4dr	Sedan	Asia	Front	\$26,990	\$24,647	2.4	4	200	22	29	323
5	Acura	TL 4dr	Sedan	Asia	Front	\$33,195	\$30,299	3.2	6	270	20	28	357
6	Acura	3.5 RL 4dr	Sedan	Asia	Front	\$43,755	\$39,014	3.5	6	225	18	24	388
7	Acura	3.5 RL w/	Sedan	Asia	Front	\$46,100	\$41,100	3.5	6	225	18	24	389
8	Acura	NSX coup	Sports	Asia									319
9	Audi	A4 1.8T 4c	Sedan	Europe									325
10	Audi	A4 1.8T co	Sedan	Europe									363
11	Audi	A4 3.0 4dr	Sedan	Europe									346
12	Audi	A4 3.0 Qu	Sedan	Europe									358
13	Audi	A4 3.0 Qu	Sedan	Europe									362
14	Audi	A6 3.0 4dr	Sedan	Europe									356
15	Audi	A6 3.0 Qu	Sedan	Europe									388
16	Audi	A4 3.0 cor	Sedan	Europe									387
17	Audi	A4 3.0 Qu	Sedan	Europe									401
18	Audi	A6 2.7 Tur	Sedan	Europe									383
19	Audi	A6 4.2 Qu	Sedan	Europe									402
20	Audi	A8 L Quat	Sedan	Europe									439
21	Audi	S4 Quattr	Sedan	Europe									382
22	Audi	RS 6 4dr	Sports	Europe									402
23	Audi	TT 1.8 cor	Sports	Europe	Front	\$35,940	\$32,512	1.8	4	180	20	28	313
24	Audi	TT 1.8 Qu	Sports	Europe	All	\$37,390	\$33,891	1.8	4	225	20	28	292
25	Audi	TT 3.2 cor	Sports	Europe	All	\$40,590	\$36,739	3.2	6	250	21	29	335

Upload to LASR

Use this task to load your data into a SAS LASR Analytic Server.

Library:
Visual Analytics Public LASR

Table:
EXCEL

Location:
/Shared Data/SAS Visual Analytics/Public/LASR Browse...

☒ Register data for use in SAS Visual Analytics

Run Save Cancel Help

Tasks



Filters

Find a task

Sort Data

Split Columns

Stack Columns

Standardize Data

Summary Statistics

Summary Statistics Wizard

Summary Tables

Summary Tables Wizard

Surface Plot

t Test

Table Analysis

Tile Chart

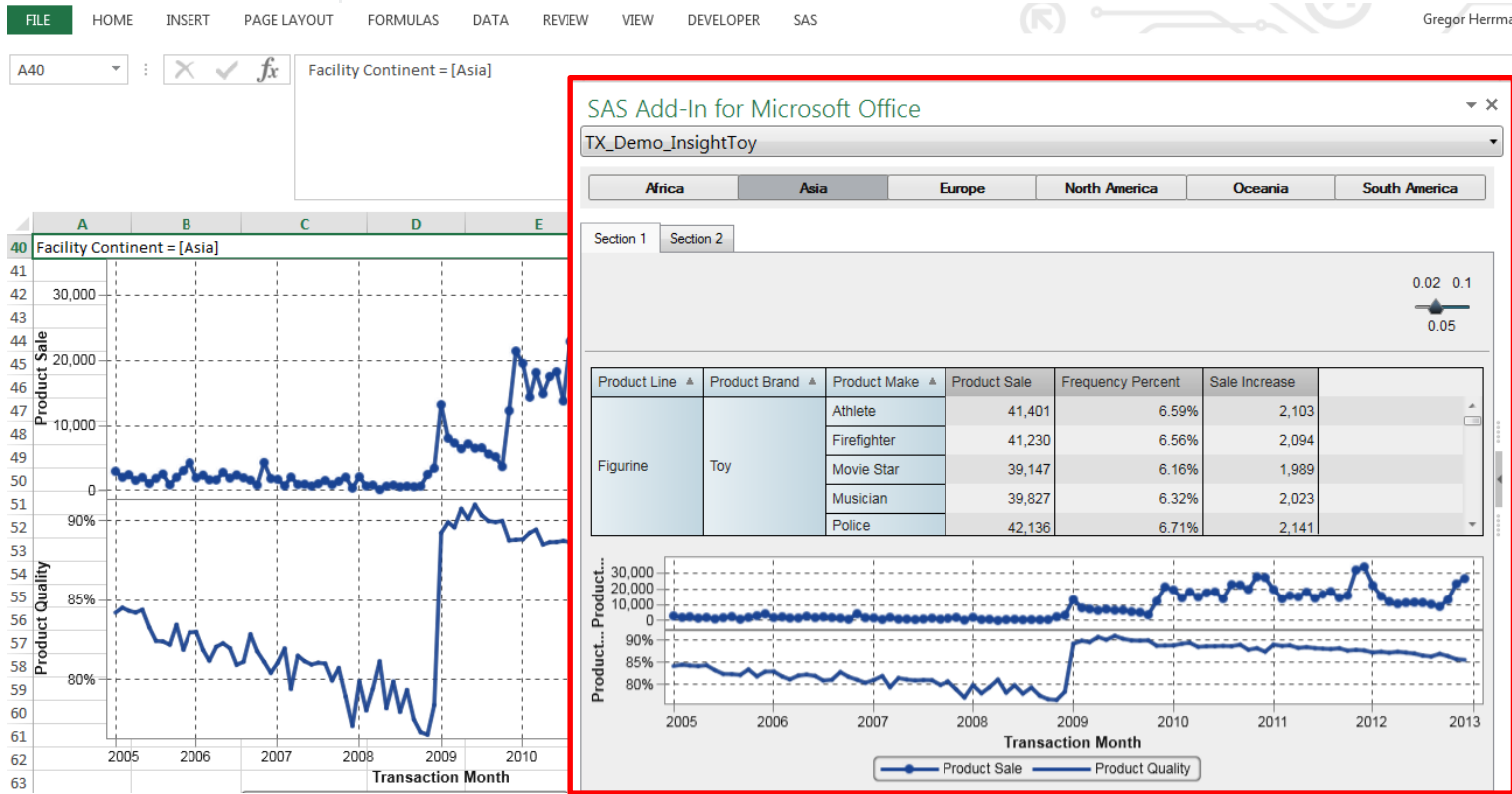
Transpose

u Chart

Upload to LASR

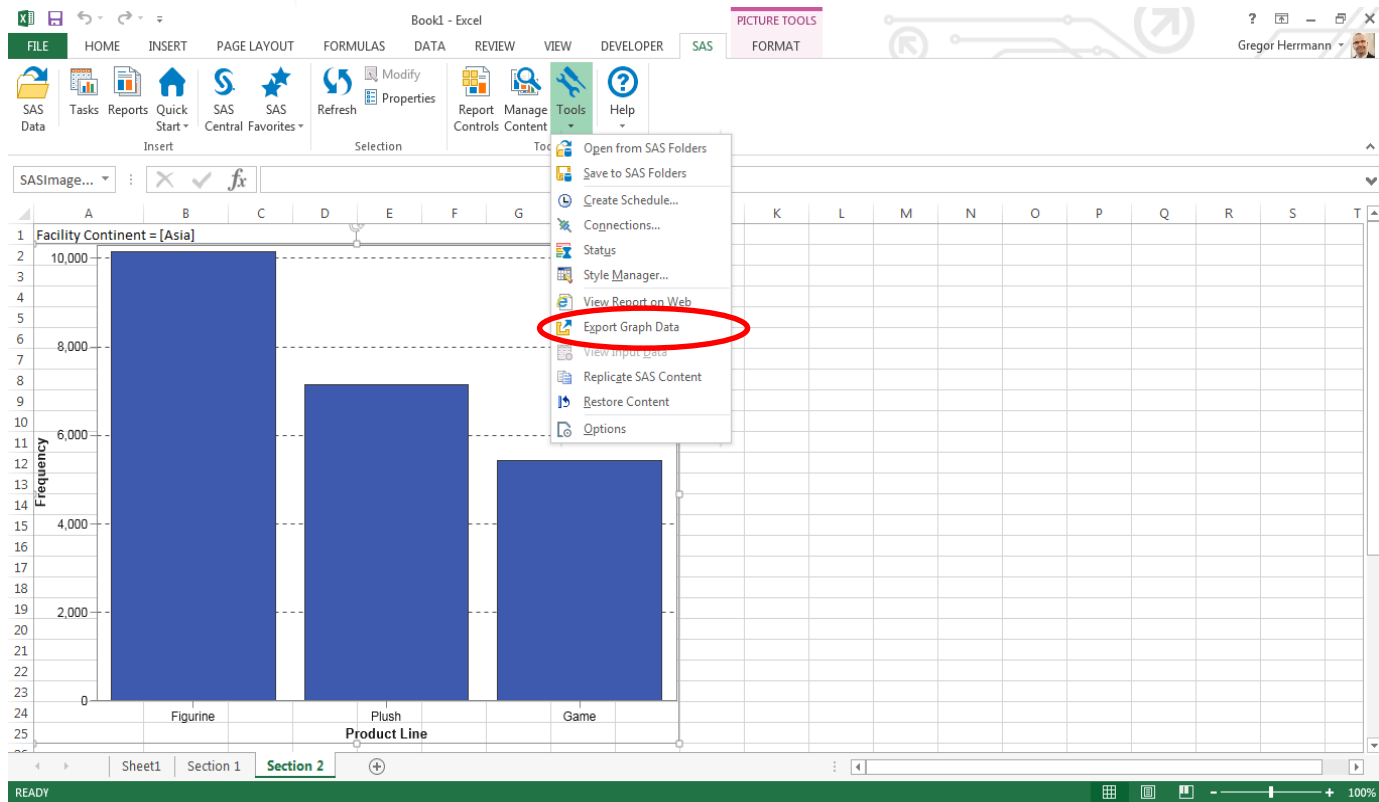
ADD-IN FOR MICROSOFT OFFICE

PANEL FOR INTERACTIVE VIEW



ADD-IN FOR MICROSOFT OFFICE

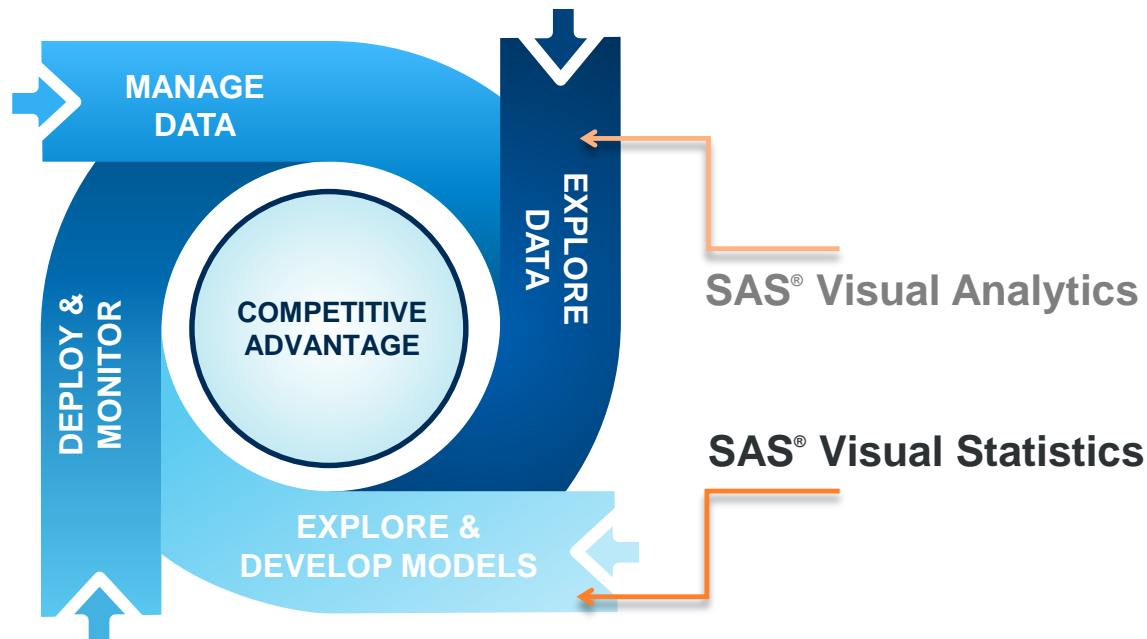
EXTRACT DATA BEHIND VA REPORT



09.30 – 10.00	Coffee & biscuits
10.00 – 10.15	Introductions
10.15 - 10.45	What's new in SAS Visual Analytics - SAS
10.45 – 11.15	Presentation by Emma Robson (Asda)
11.15 – 11.30	Break
11.30 – 12.00	Introduction to Visual Statistics – SAS
12:00 – 12:30	Networking and Lunch
12:30 – 13:00	Ask the Experts
13:00 – 13.15	Feedback and discussion about future topics - ALL
Close	

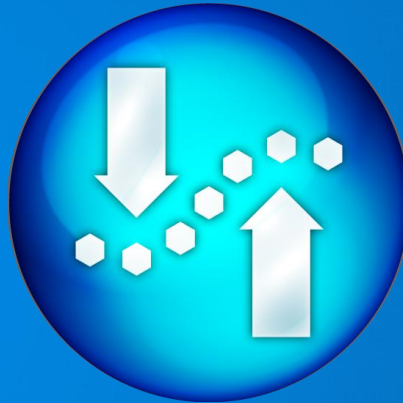
SAS® VISUAL STATISTICS







**EXPLORE AND
DISCOVER**



**PREDICT AND
REFINE**



**COMPARE AND
ASSESS**

ANALYTIC CAPABILITIES

Classification



Predict outcomes using causal factors -
churn, campaign response, part failure

Regression



Estimate outcomes using causal factors
- spend, policy premium, credit limit, etc.

Clustering



Segment data based on self-similarity –
risk, profitability, demographic, etc.

Group-By



Models by segments/groups (e.g.
location, store, owner, device, etc.).

HOW IT CAN BE USED?

THANKS



**THE
POWER
TO KNOW®**