

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



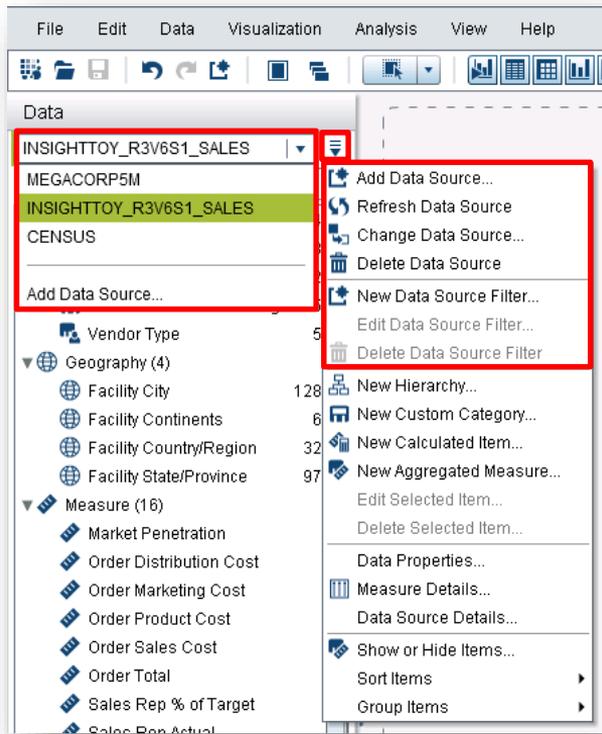
EXPLORER

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



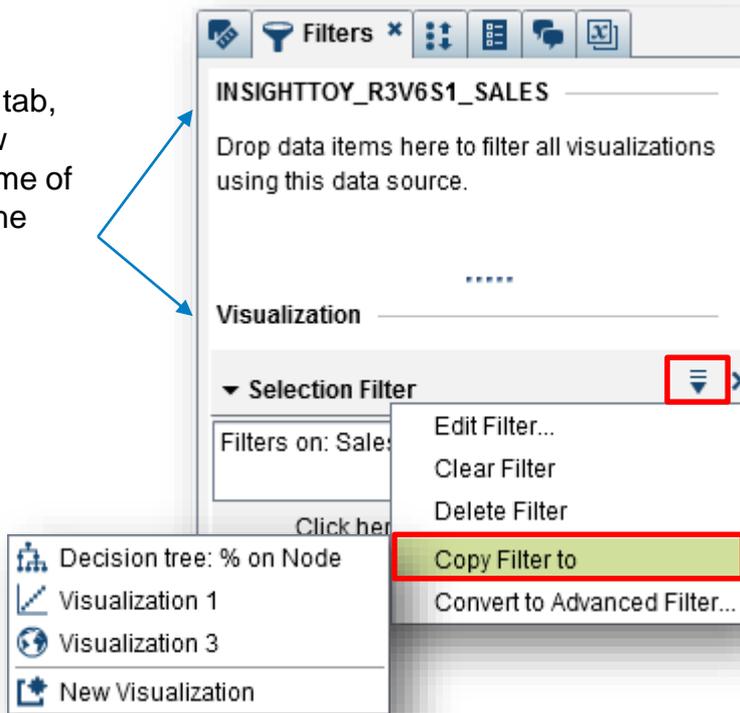
VAE now supports multiple data sources.

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

VA 7.1 EXPLORER

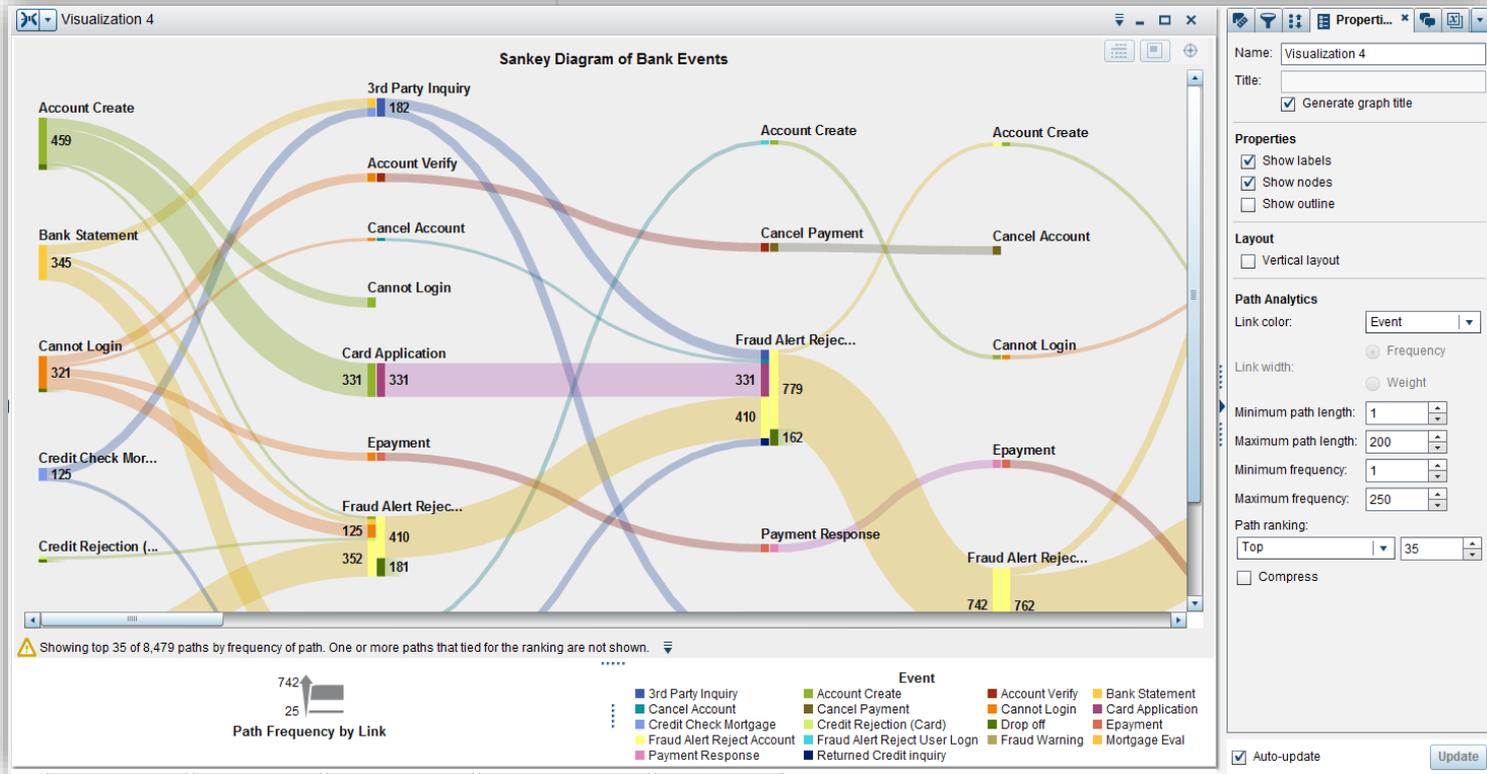
COPY FILTER TO OTHER VISUALIZATIONS

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.

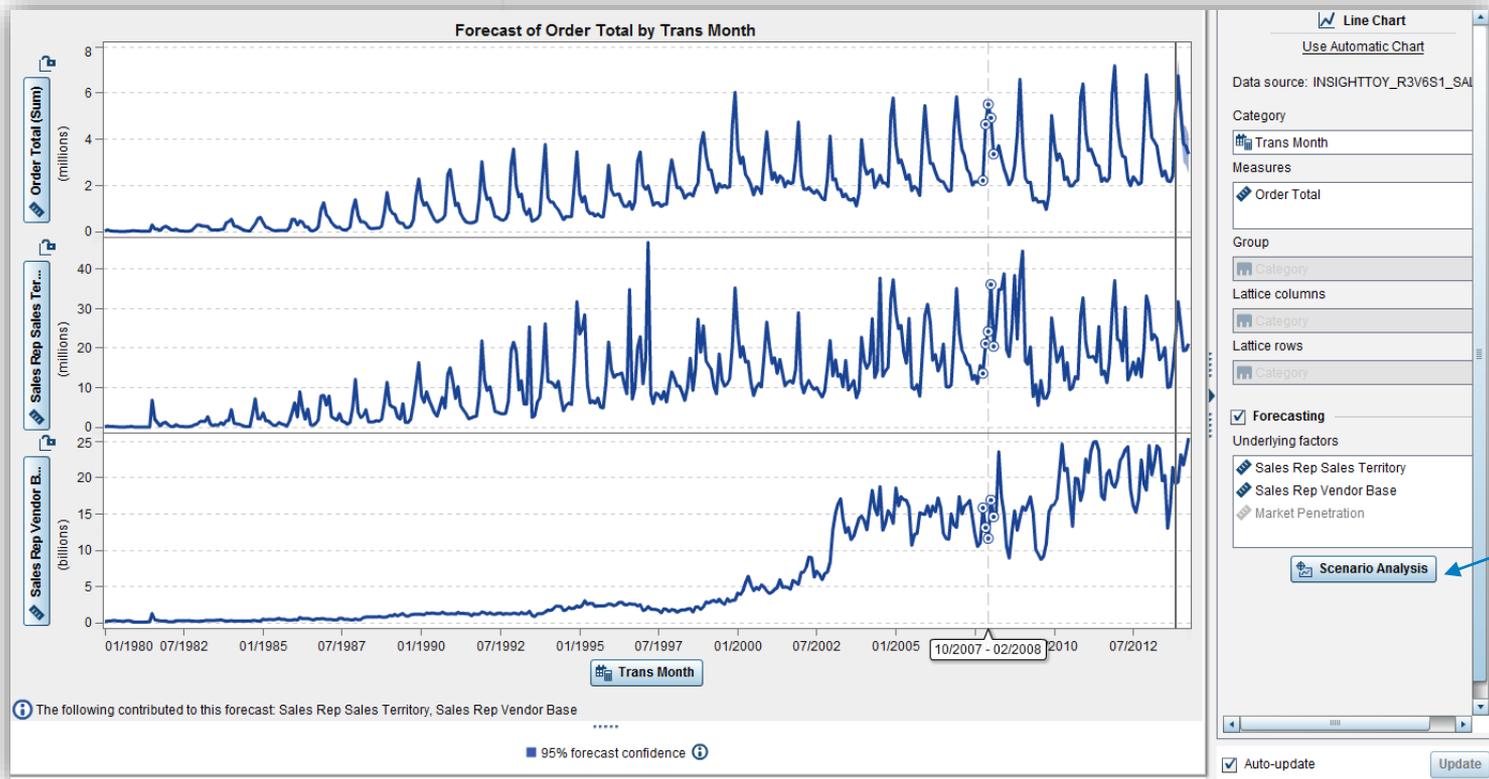
VA 7.1 EXPLORER PATHING



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

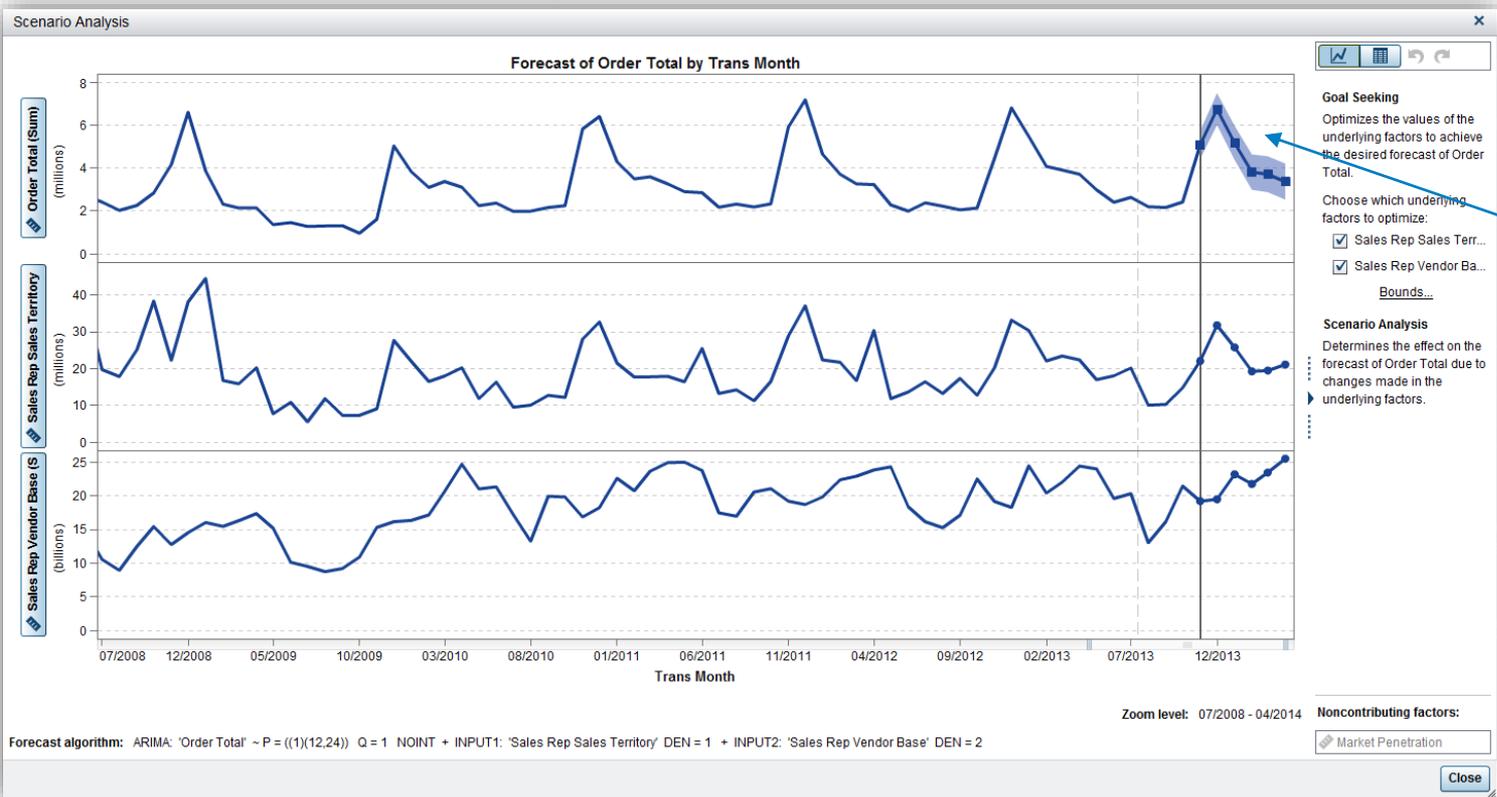
GOAL SEEKING & SCENARIO ANALYSIS



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

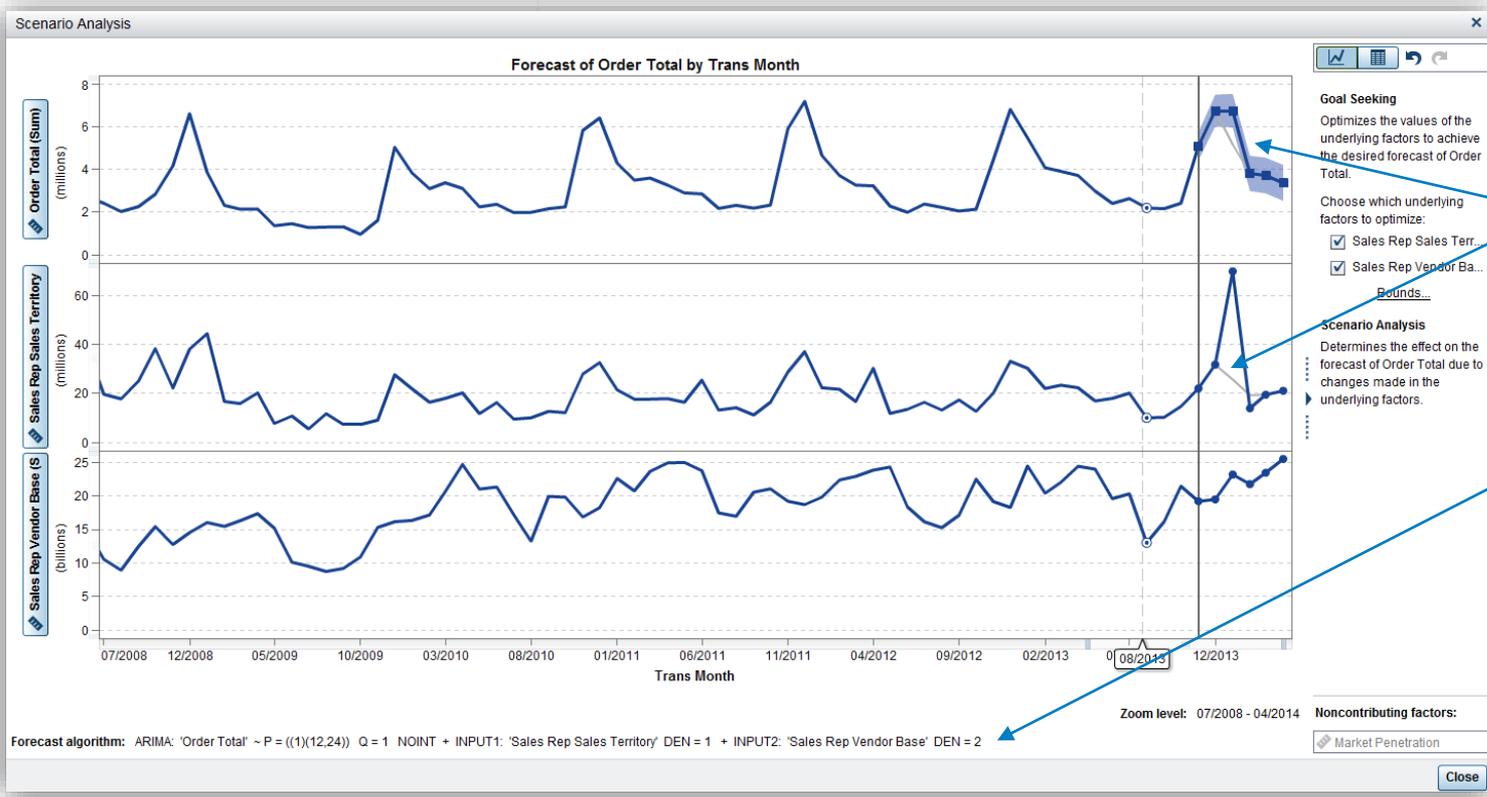
GOAL SEEKING & SCENARIO ANALYSIS



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

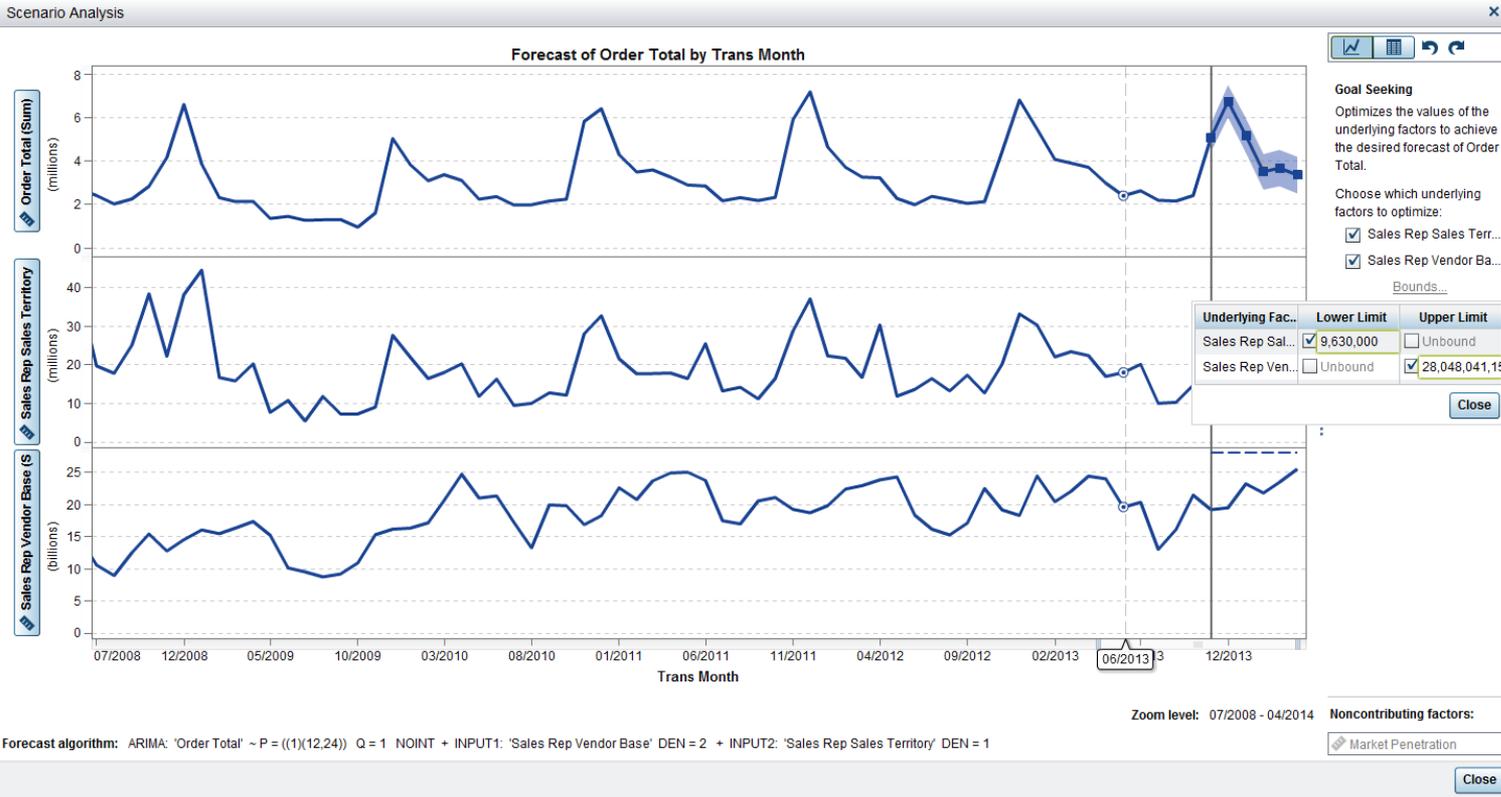
GOAL SEEKING & SCENARIO ANALYSIS



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

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, inkhousepr, 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.

VA 7.1 EXPLORER

SENTIMENT

Results Topics Documents Analysis

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/n3lZxAcRKJ #TeamFollowBack	☹️ 0.50	0.35
Ex-Apple Designer Says Apple Watch Looks Like It Was 'Designed By Committee' (AAPL) http://t.co/ulK4adtMzV	☹️ 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

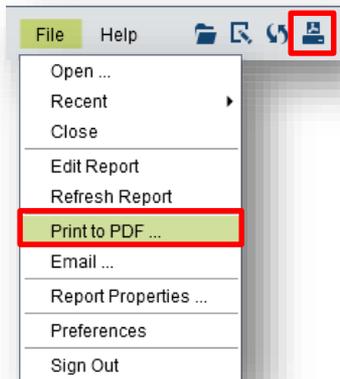
DESIGNER

- 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

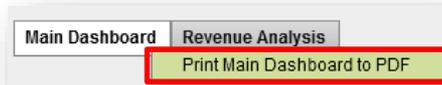
PRINT TO PDF

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**

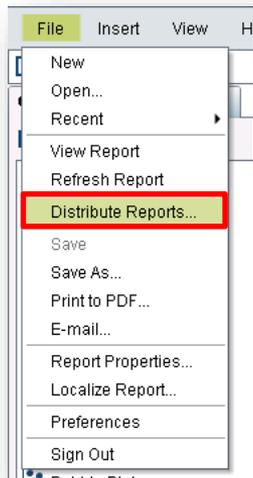
Print the Object



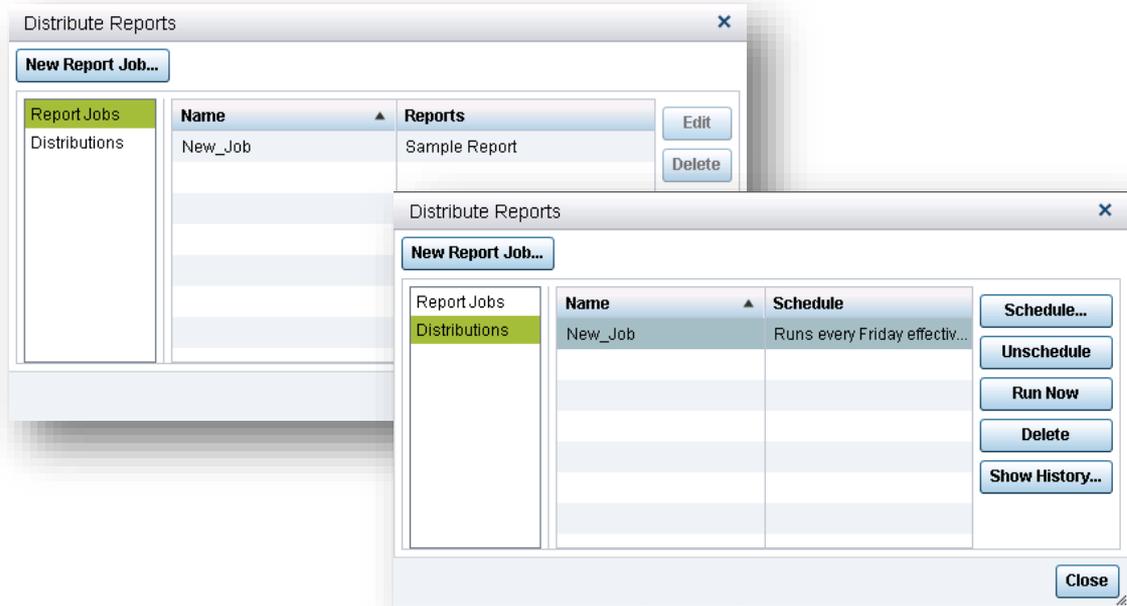
Object print option is available from pop-up menu when **right clicking on the object**

VA 7.1 DESIGNER

REPORT DISTRIBUTION VIA EMAIL



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



Report distribution is defined by two elements:

- Report Job
- Distribution (scheduling)

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 name 'Luppi, Renato' is listed. 'OK' and 'Cancel' buttons are at the bottom.

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. 'OK' and 'Cancel' buttons are at the bottom.

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'. 'OK' and 'Cancel' buttons are at the bottom.

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

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

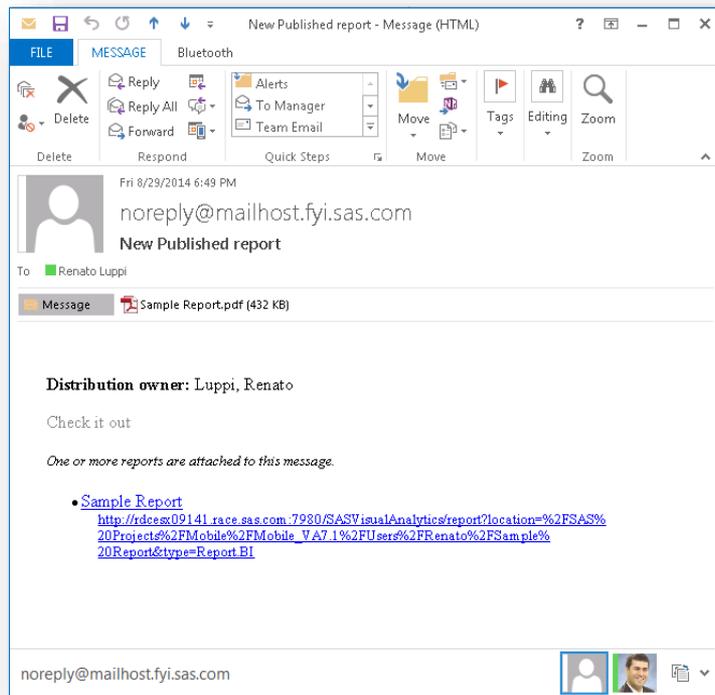
Range of Recurrence

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.



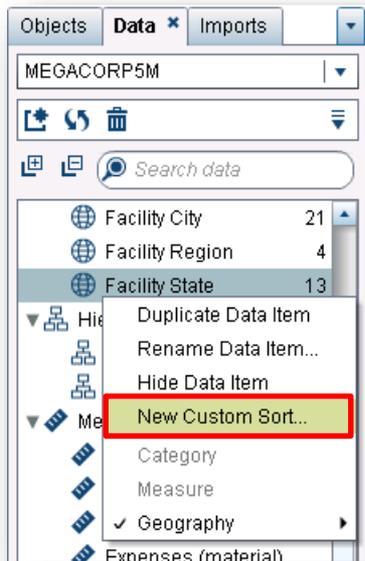
The email distribution contains the report attached as **PFD** as well as the **URL to the live report**.

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

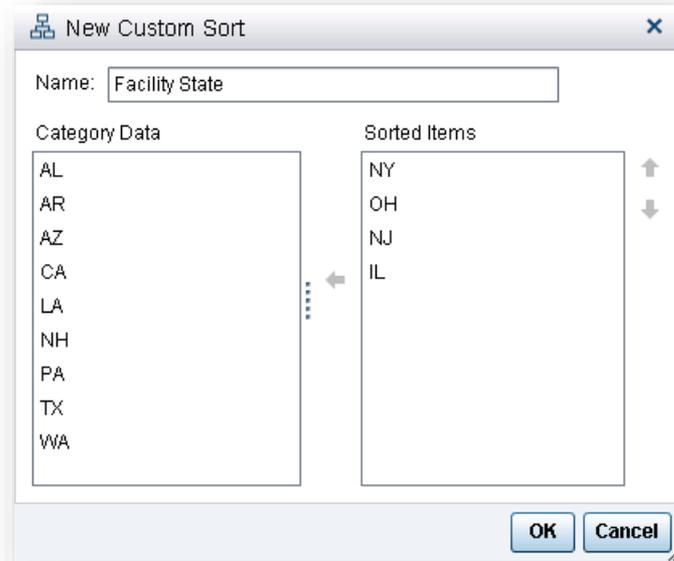
The PDF is the same as if the user had printed the report. For **Stack Containers**, only the **first object** is printed.

VA 7.1 DESIGNER

CUSTOM SORT



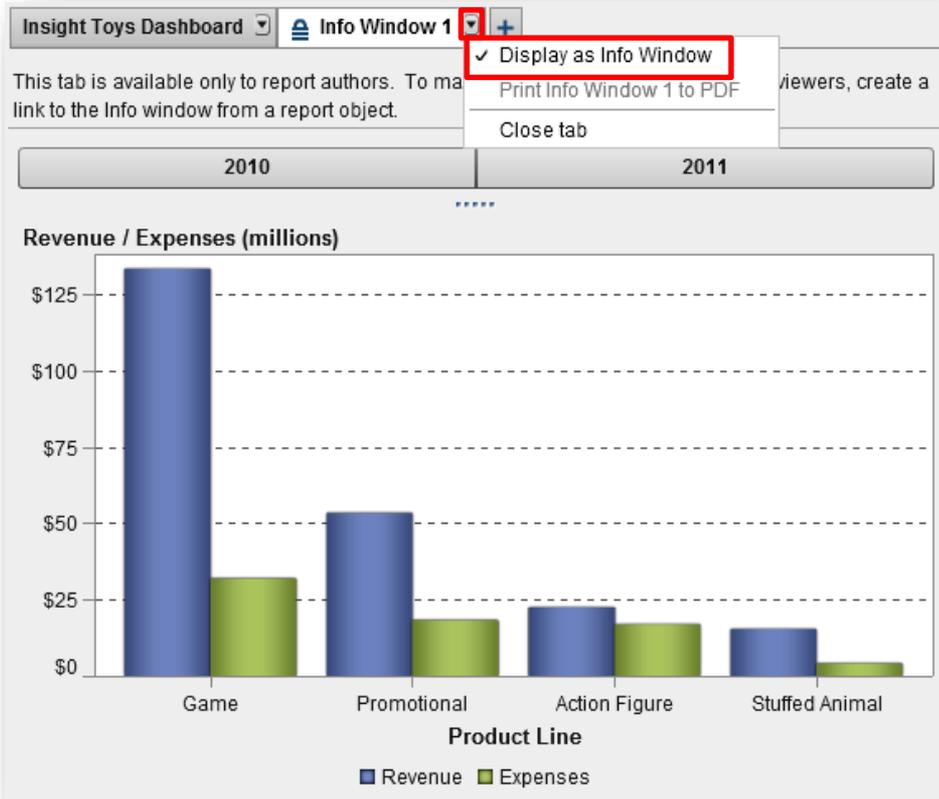
Custom sort is available for data items classified as **category** (except date/time), including **geography**



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

VA 7.1 DESIGNER

LINKED INFO WINDOW

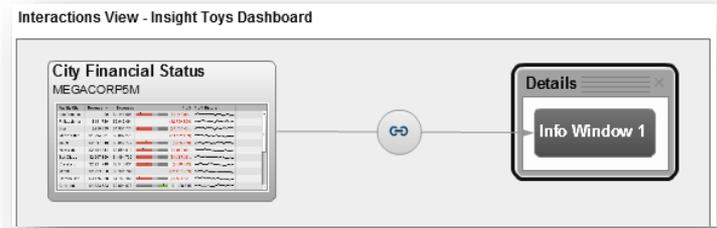


Like a report section, **Info Windows** are visible as tabs in VA Designer, but not in VA Viewer.

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

Change Data Source...
New Hierarchy...
New Custom Category...
New Calculated Item...
New Aggregated Measure...
New Parameter...
New Data Source Filter...
Measure Details...
Show or Hide Items...
Sort Items
Group Items

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)

Facility Region	Revenue	Expenses	Profit
West	1,302,261,450	382,295,806	919,965,643
South	1,115,750,923	446,683,430	669,067,493
All Other	606,886,679	313,592,000	293,294,679

Replace Profit
Remove Profit
Create and Add
Aggregation
Sort
Delete Rank
Add Link
Add Display Rule
Add Alert...
Add Sparkline
Export List Table 1
Print List Table 1 to PDF
Delete List Table 1
Duplicate List Table 1
Move List Table 1 to
Select All

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)
• Default (Sum)

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 a 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

- ▶ 123 Numeric (simple)
 - ▶ 123 Aggregated
 - ▶ 123 Periodic
 - ▶ Comparison
 - ▶ Boolean
 - ▶ 123 Numeric (advanced)
- ▼ 123 Aggregated
 - 123 Avg
 - 123 Count
 - 123 Distinct
 - 123 Max
 - 123 Min
 - 123 Sum

VA 7.1

- ▶ 123 Numeric (simple)
 - ▶ 123 Aggregated (simple)
 - ▶ 123 Periodic
 - ▶ Comparison
 - ▶ Boolean
 - ▶ 123 Numeric (advanced)
 - ▶ 123 Aggregated (advanced)
- ▼ 123 Aggregated (simple)
 - 123 Avg
 - 123 Count
 - 123 Distinct
 - 123 Max
 - 123 Median
 - 123 Min
 - 123 NumMiss
 - 123 Q1
 - 123 Q3
 - 123 StdDev
 - 123 StdErr
 - 123 Sum
 - 123 Var
 - ▼ 123 Aggregated (advanced)
 - 123 CoefVar
 - 123 CSS
 - 123 First
 - 123 Kurtosis
 - 123 Last
 - 123 Percentile
 - 123 PvalT
 - 123 Skewness
 - 123 TStat
 - 123 USS

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 %

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 Designer. It displays three filter sections for the 'List Table 1' table. Each section has a 'Filter aggregated values' checkbox, which is checked and highlighted with a red box. Below each checkbox is a slider control showing minimum and maximum values. The 'Expenses (Sum)' filter has values 85,005,857 and 446,683,430. The 'Profit (calc) (Sum)' filter has values 77,813,475.70 and 919,965,643.13. The 'Gross Margin % (None)' filter has values 47.79% and 70.65%. All filters also have an 'Include missing values' checkbox checked.

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

OK Cancel

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)

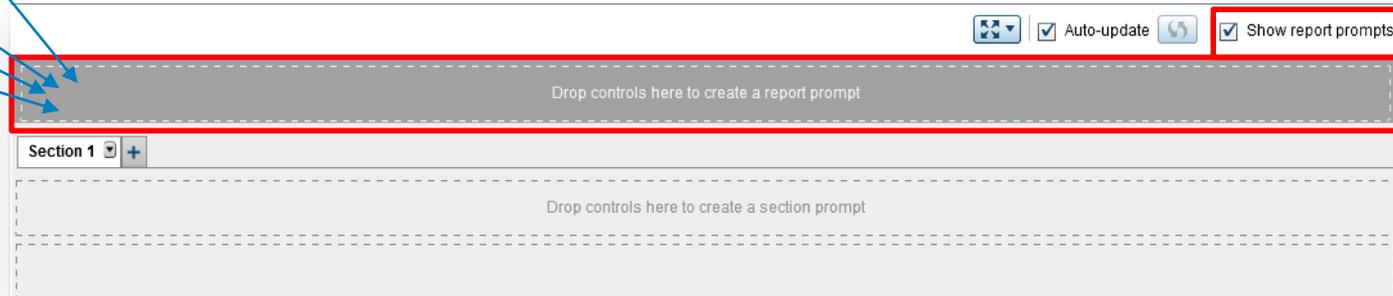
DESIGNER

- 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.

VA 7.1 DESIGNER

PROMPT CONTAINER

Prompt Containers preserve screen real estate

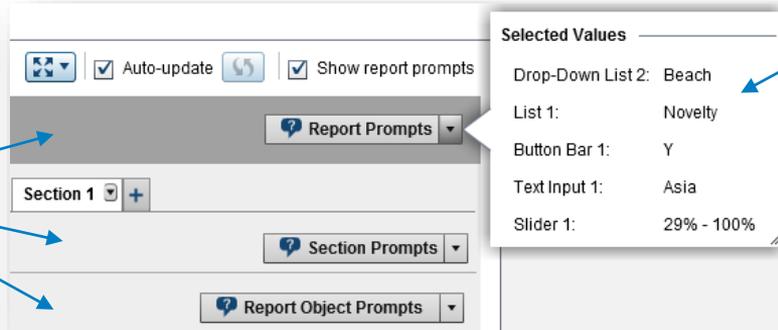
Containers

- 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.

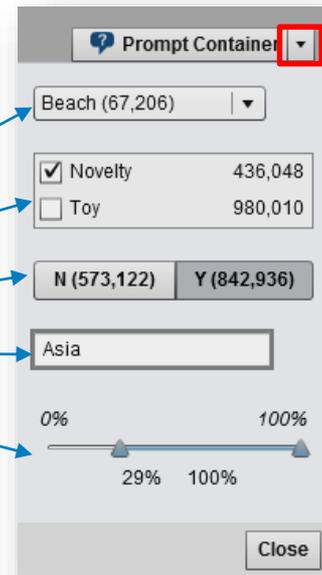


Hover mouse over the prompt container and a callout will display the selected values for all prompts

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

Layout:

- Vertical
- Horizontal

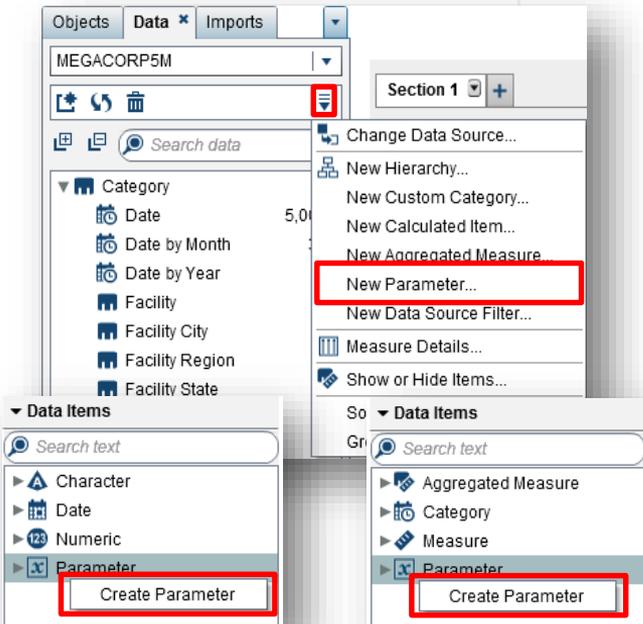
Option to defer application of user selection changes until *Apply* button is pressed (option unchecked):

V.S. Apply Cancel

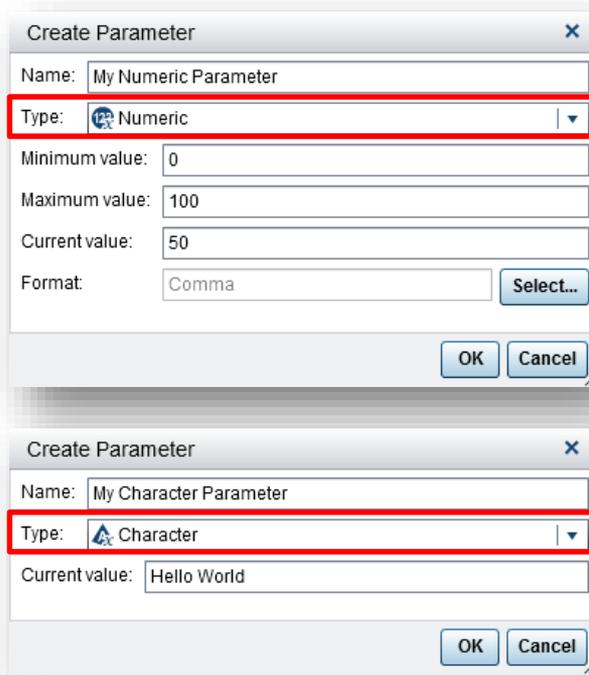
Sequence of appearance of Control objects can be managed

VA 7.1 DESIGNER

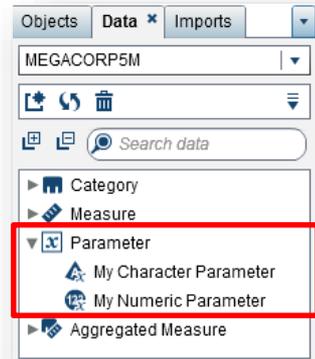
PARAMETERS



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



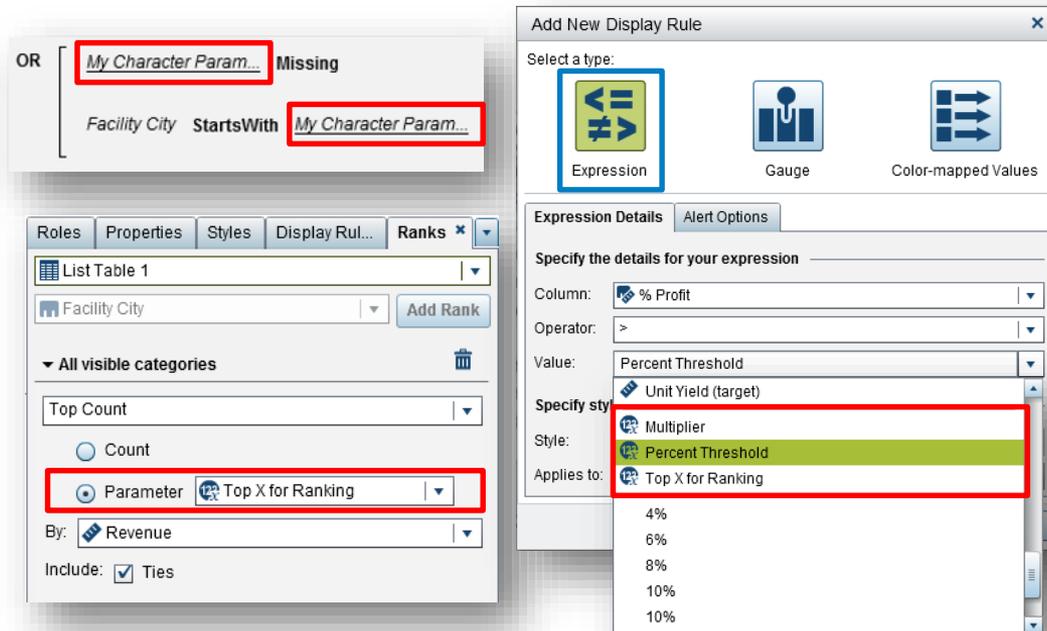
Once created, they show up in the Data tab under the Parameter group

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.

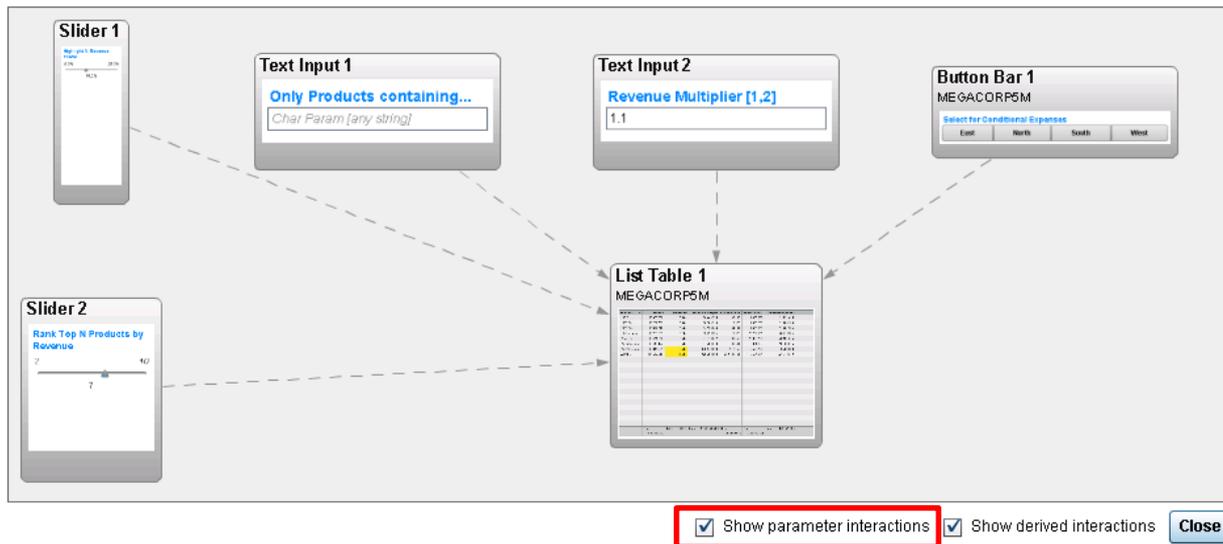
... and consumed by target recipients



The screenshot shows the SAS VA Designer interface. In the top-left, a source object configuration shows 'My Character Param...' (highlighted in red) used in a 'Missing' condition and a 'StartsWith' condition. Below this, the 'Ranks' tab is active, showing a 'List Table 1' with 'Facility City' as the column. Under 'All visible categories', the 'Parameter' radio button is selected, and 'Top X for Ranking' is chosen from the dropdown (highlighted in red). The 'By' field is set to 'Revenue'. In the top-right, the 'Add New Display Rule' dialog is open, with the 'Expression' type selected. The 'Expression Details' tab shows the configuration: Column: '% Profit', Operator: '>', Value: 'Percent Threshold', and Style: 'Top X for Ranking' (highlighted in red). The 'Applies to' dropdown is also set to 'Top X for Ranking'.

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

Interactions View - Parameters



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

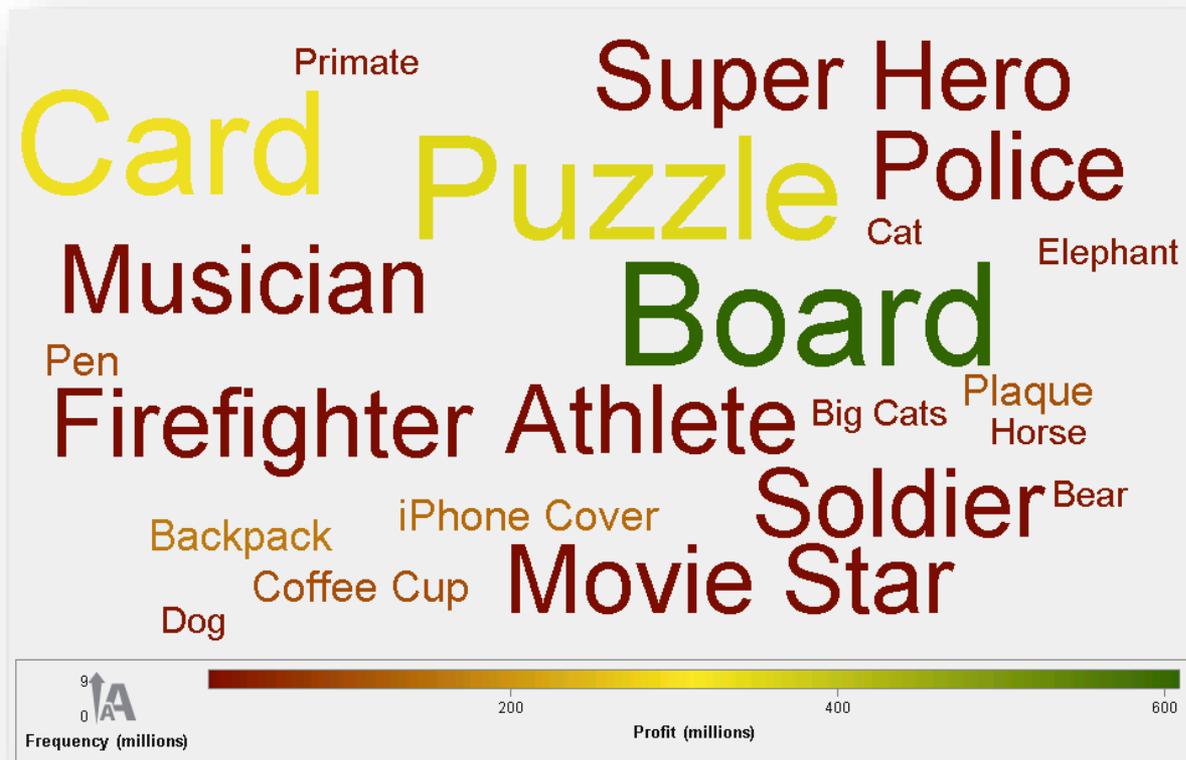
Expanded animation support to include additional chart types and combination with group and lattice rows/columns data item roles:

	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.





▼ 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...

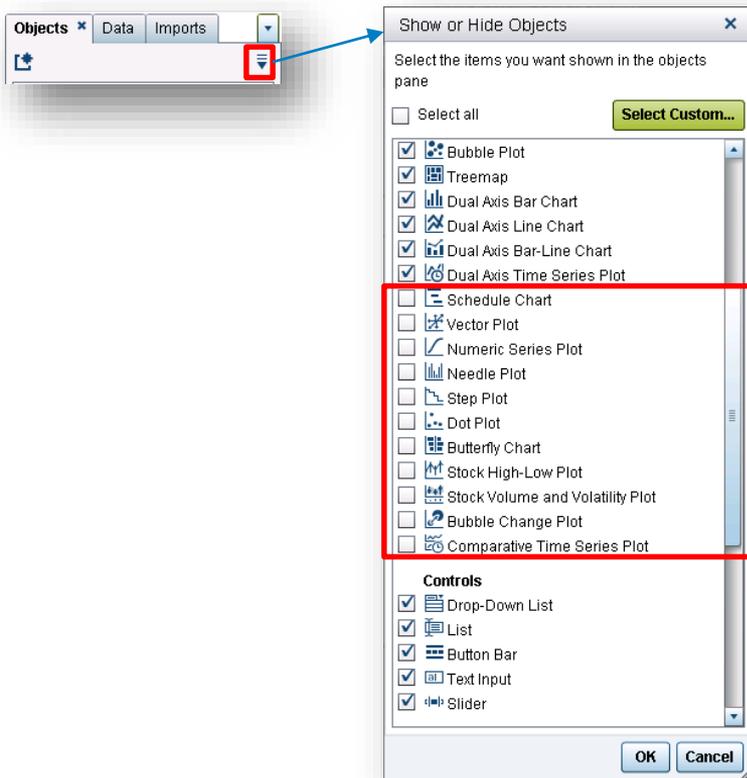
▼ Grid Lines

Show grid lines

Controlled by
Grouping scale
option in the
Properties tab

VA 7.1 DESIGNER

CUSTOM GRAPH GALLERY

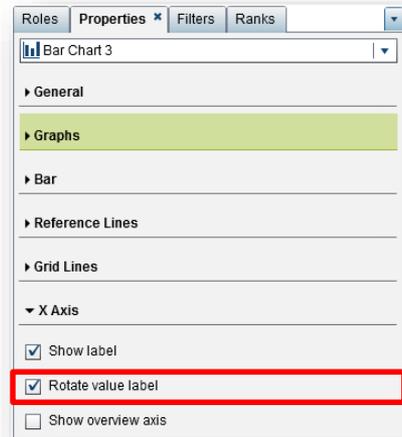
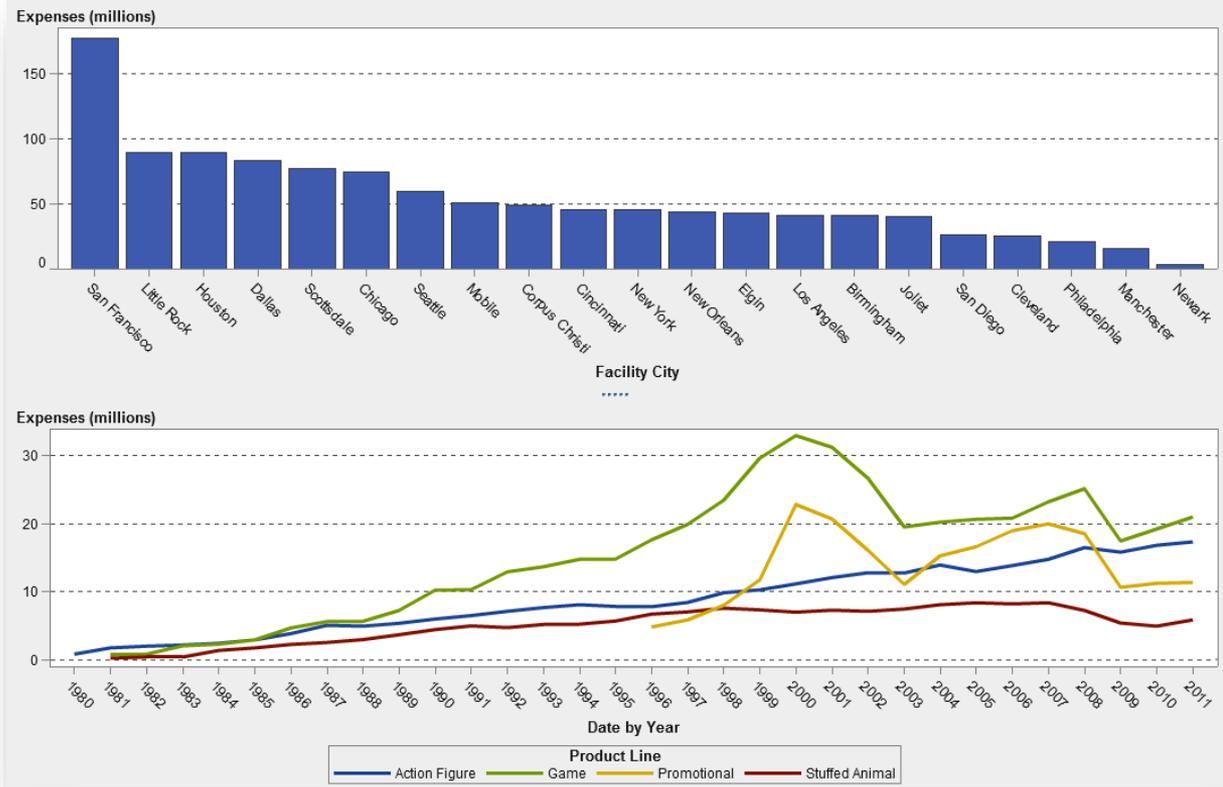


From the **Show or Hide Objects** menu in the **Objects** tab, we can add 11 new graph templates available in the gallery

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



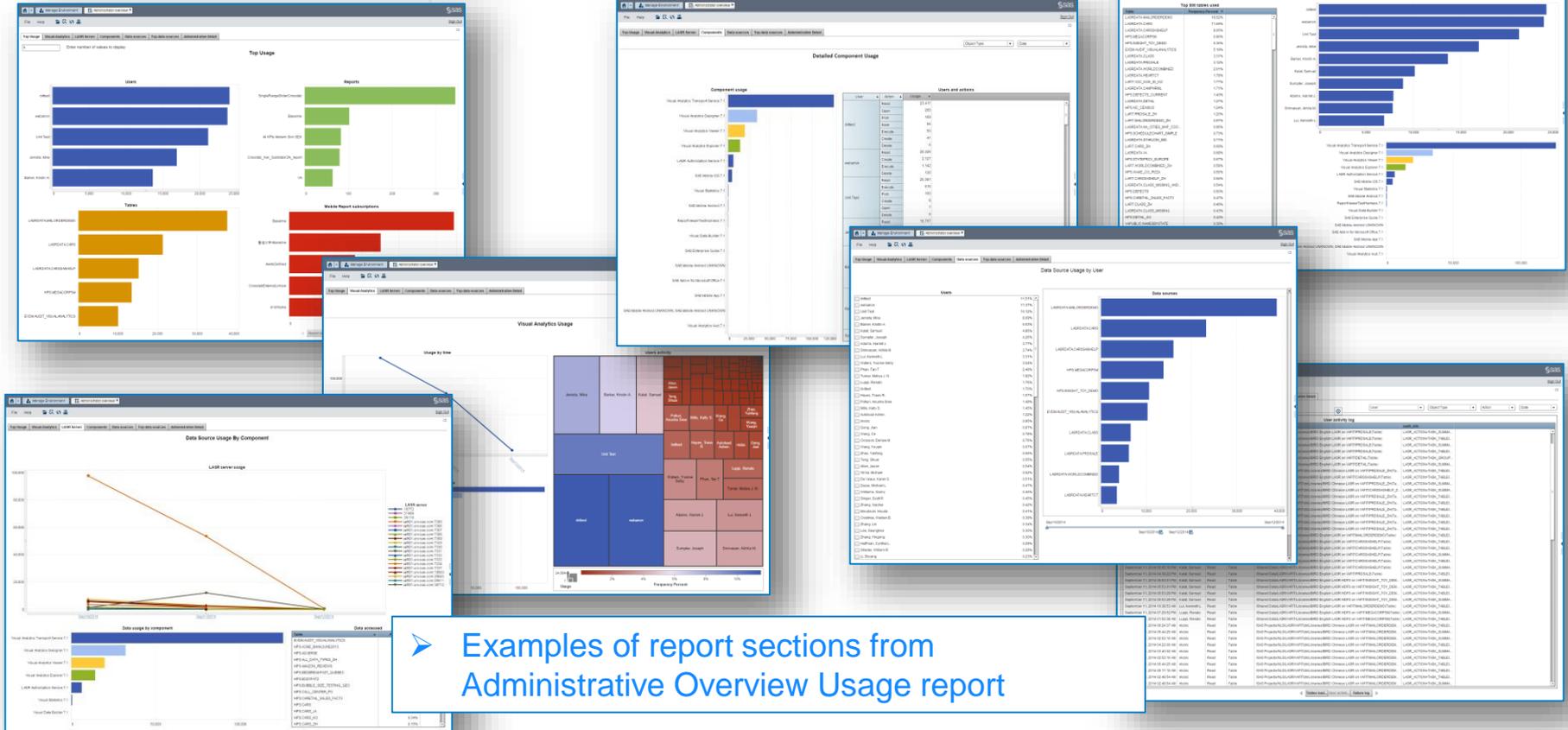
What's New

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

The screenshot shows the SAS LASR Servers management interface. A red box highlights the selection area on the left side of the table, where multiple servers are selected. A blue callout box with a right-pointing arrow contains the text: "Perform actions on multiple servers / tables".

server	Status	Virtual Memory	Tables Memory (MB)	Tables Limit (MB)	Host	Port	Started By	Description	Started	Accessed
<input checked="" type="checkbox"/> ASR Analytic Server - va0101	●	1%	510.00		va0101.unx.sas...	20043	bcigrld	SAS LASR Anal...	09/10/14 08:30	09/11/14 06...
<input checked="" type="checkbox"/> Public LASR Analytic Server - va0101	▲	2%	2,105.56	1,500	va0101.unx.sas...	10043	bcigrld	Visual Analytics...	09/10/14 08:30	09/11/14 03...
<input type="checkbox"/> BIRD English LASR on VAFIT		14%			va0101.unx.sas...	7300	jaalie		09/11/14 05:36	09/11/14 06...
<input type="checkbox"/> BIRD English_errorTesting LASR on VAFIT		12%			va0101.unx.sas...	7304				
<input type="checkbox"/> BIRD English_highRiskTesting LASR on VAFIT		2%			va0101.unx.sas...	7309		BIRD English_...		
<input type="checkbox"/> BIRD English_notformats LASR on VAFIT		0.68%			va0101.unx.sas...	7302				
<input type="checkbox"/> BIRD English_printTesting LASR on VAFIT		2%			va0101.unx.sas...	7307		BIRD English_...		
<input type="checkbox"/> BIRD English_security LASR on VAFIT		0.67%			va0101.unx.sas...	7306				
<input type="checkbox"/> BIRD English LASR for Testing on VAFIT					va0101.unx.sas...	7301				
<input type="checkbox"/> BIRD English LASR Autoload on VAFIT		1%			va0101.unx.sas...	7308				
<input checked="" type="checkbox"/> greenway:14275	■				greenway.unx.s...	14275				
<input type="checkbox"/> ms2650:14275					tms2650.unx.s...	14275				
<input type="checkbox"/> va0101:14275	■				va0101.unx.sas...	14275				
<input checked="" type="checkbox"/> BIRD Arabic LASR on VAFIT	●	0.72%	21.00		va0101.unx.sas...	7337	stbj/w		09/10/14 05:52	09/10/14 05...
<input type="checkbox"/> BIRD Chinese LASR on VAFIT		2%			va0101.unx.sas...	7331				
<input type="checkbox"/> BIRD French LASR on VAFIT		0.69%			va0101.unx.sas...	7335				
<input type="checkbox"/> BIRD Japanese LASR on VAFIT		2%			va0101.unx.sas...	7333				
<input type="checkbox"/> BIRD Korean LASR on VAFIT		3%			va0101.unx.sas...	7334				
<input type="checkbox"/> BIRD Polish LASR on VAFIT		0.70%			va0101.unx.sas...	7336				
<input type="checkbox"/> BIRD Traditional Chinese LASR on VAFIT		0.71%			va0101.unx.sas...	7332				
<input type="checkbox"/> BIRD Unicode LASR on VAFIT		2%			va0101.unx.sas...	7330				
<input type="checkbox"/> AA71 Auto LASR Server - en		0.79%			va0101.unx.sas...	38710		VAA 7.1 Automa...		
<input type="checkbox"/> AA71 Auto LASR Server - 国中					va0101.unx.sas...	38711		VAA 7.1 国中...		
<input type="checkbox"/> AA71 Auto LASR Server - 国中					va0101.unx.sas...	38712		VAA 7.1 国中...		
<input type="checkbox"/> AA71 Manual LASR Server - 国中		0.60%			va0101.unx.sas...	38717		VAA 7.1 手动...		
<input type="checkbox"/> General Use LASR Server					va0101.unx.sas...	0		1 hour lifetime...		
<input type="checkbox"/> AA LASR va0101 - 16983		0.84%			va0101.unx.sas...	16983		VAA LASR vaft...		
<input type="checkbox"/> AA LASR va0101 - 17132					va0101.unx.sas...	17132		VAA LASR vaft...		
<input type="checkbox"/> DB_UnitTest_LASR		0.73%			va0101.unx.sas...	22695				
<input type="checkbox"/> XV LASRClient Test		2%			va0101.unx.sas...	24234				
<input type="checkbox"/> DB lasr server nangee					va0101.unx.sas...	29254				
<input type="checkbox"/> Aurali LASR Server		0.60%			va0101.unx.sas...	60594				
<input type="checkbox"/> sas_LASRServices_28801					va0101.unx.sas...	28801		VA LASR Servic...		
<input type="checkbox"/> sas_LASRServices_28802					va0101.unx.sas...	28802		VA LASR Servic...		
<input type="checkbox"/> sas_LASRServices_28811		0.57%			va0101.unx.sas...	28811		VA LASR Servic...		

Server	Status	Virtual Memory	Tables Memory (MB)	Tables Limit (MB)	Host	Port	Started By	Description	Started	Accessed
<input checked="" type="checkbox"/> LASR Analytic Server - vaaf01	●	1%	510.00		af101.unx.sas...	20043	bcigrld	SAS LASR Anal...	09/10/14 08:30...	09/11/14 06...
<input checked="" type="checkbox"/> Public LASR Analytic Server - vaaf01	▲	2%	2,105.56	1,500	af101.unx.sas...	10043	bcigrld	Visual Analytics...	09/10/14 08:30...	09/11/14 03...
<input type="checkbox"/> BIRD English LASR on VAFIT		14%			af101.unx.sas...	7300	jaalle		09/11/14 05:36...	09/11/14 06...
<input type="checkbox"/> BIRD English_errorTesting LASR on VAFIT		12%			af101.unx.sas...	7304				
<input type="checkbox"/> BIRD English_highRiskTesting LASR on VAFIT		2%			af101.unx.sas...	7309		BIRD English_...		
<input type="checkbox"/> BIRD English_notformats LASR on VAFIT		0.68%			af101.unx.sas...	7302				
<input type="checkbox"/> BIRD English_printTesting LASR on VAFIT		2%			af101.unx.sas...	7307		BIRD English_...		
<input type="checkbox"/> BIRD English_security LASR on VAFIT		0.67%			af101.unx.sas...	7306				
<input type="checkbox"/> BIRD English LASR for Testing on VAFIT					af101.unx.sas...	7301				
<input type="checkbox"/> BIRD English LASR Autoload on VAFIT		1%			af101.unx.sas...	7308				
<input checked="" type="checkbox"/> greenway:14275	■				greenway.unx.s...	14275				
<input type="checkbox"/> tms2650:14275					tms2650.unx.s...	14275				
<input type="checkbox"/> vaaf01:14275					af101.unx.sas...	14275				
<input checked="" type="checkbox"/> BIRD Arabic LASR on VAFIT	●	0.72%	21.00		af101.unx.sas...	7337	stbj/w		09/10/14 05:52...	09/10/14 05...
<input type="checkbox"/> BIRD Chinese LASR on VAFIT		2%			af101.unx.sas...	7331				
<input type="checkbox"/> BIRD French LASR on VAFIT		0.69%			af101.unx.sas...	7335				
<input type="checkbox"/> BIRD Japanese LASR on VAFIT		2%			af101.unx.sas...	7333				
<input type="checkbox"/> BIRD Korean LASR on VAFIT		3%			af101.unx.sas...	7334				
<input type="checkbox"/> BIRD Polish LASR on VAFIT		0.70%			af101.unx.sas...	7336				
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<input type="checkbox"/> BIRD Unicode LASR on VAFIT		2%			af101.unx.sas...	7330				
<input type="checkbox"/> VAA71 Auto LASR Server - en		0.79%			af101.unx.sas...	38710		VAA 7.1 Automa...		
<input type="checkbox"/> VAA71 Auto LASR Server - 中文					af101.unx.sas...	38711		VAA 7.1 中文...		
<input type="checkbox"/> VAA71 Auto LASR Server - 繁體中文					af101.unx.sas...	38712		VAA 7.1 中文...		
<input type="checkbox"/> VAA71 Manual LASR Server - 繁體中文		0.60%			af101.unx.sas...	38717		VAA 7.1 中文...		
<input type="checkbox"/> General Use LASR Server					af101.unx.sas...	0		1 hour lifetime...		
<input type="checkbox"/> VAA LASR vaaf01 - 16983		0.84%			af101.unx.sas...	16983		VAA LASR vaaf...		
<input type="checkbox"/> VAA LASR vaaf01 - 17132					af101.unx.sas...	17132		VAA LASR vaaf...		
<input type="checkbox"/> VOB lasr server nangee					af101.unx.sas...	29254				
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<input type="checkbox"/> vas_LASRServices_28801					af101.unx.sas...	28801		VA LASR Servic...		
<input type="checkbox"/> vas_LASRServices_28802					af101.unx.sas...	28802		VA LASR Servic...		
<input type="checkbox"/> vas_LASRServices_28811		0.57%			af101.unx.sas...	28811		VA LASR Servic...		

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

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	Horsepow	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/l	Sedan	Asia	Front	\$46,100	\$41,100	3.5	6	225	18	24	389
8	Acura	NSX coup	Sports	Asia									
9	Audi	A4 1.8T 4c	Sedan	Europe									
10	Audi	A4 1.8T co	Sedan	Europe									
11	Audi	A4 3.0 4dr	Sedan	Europe									
12	Audi	A4 3.0 Qu	Sedan	Europe									
13	Audi	A4 3.0 Qu	Sedan	Europe									
14	Audi	A6 3.0 4dr	Sedan	Europe									
15	Audi	A6 3.0 Qu	Sedan	Europe									
16	Audi	A4 3.0 cor	Sedan	Europe									
17	Audi	A4 3.0 Qu	Sedan	Europe									
18	Audi	A6 2.7 Tur	Sedan	Europe									
19	Audi	A6 4.2 Qu	Sedan	Europe									
20	Audi	A8 L Quat	Sedan	Europe									
21	Audi	S4 Quattr	Sedan	Europe									
22	Audi	RS 6 4dr	Sports	Europe									
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	297
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

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

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER SAS

Gregor Herma

A40 : Facility Continent = [Asia]



SAS Add-In for Microsoft Office

TX_Demo_InsightToy

Africa Asia Europe North America Oceania South America

Section 1 Section 2

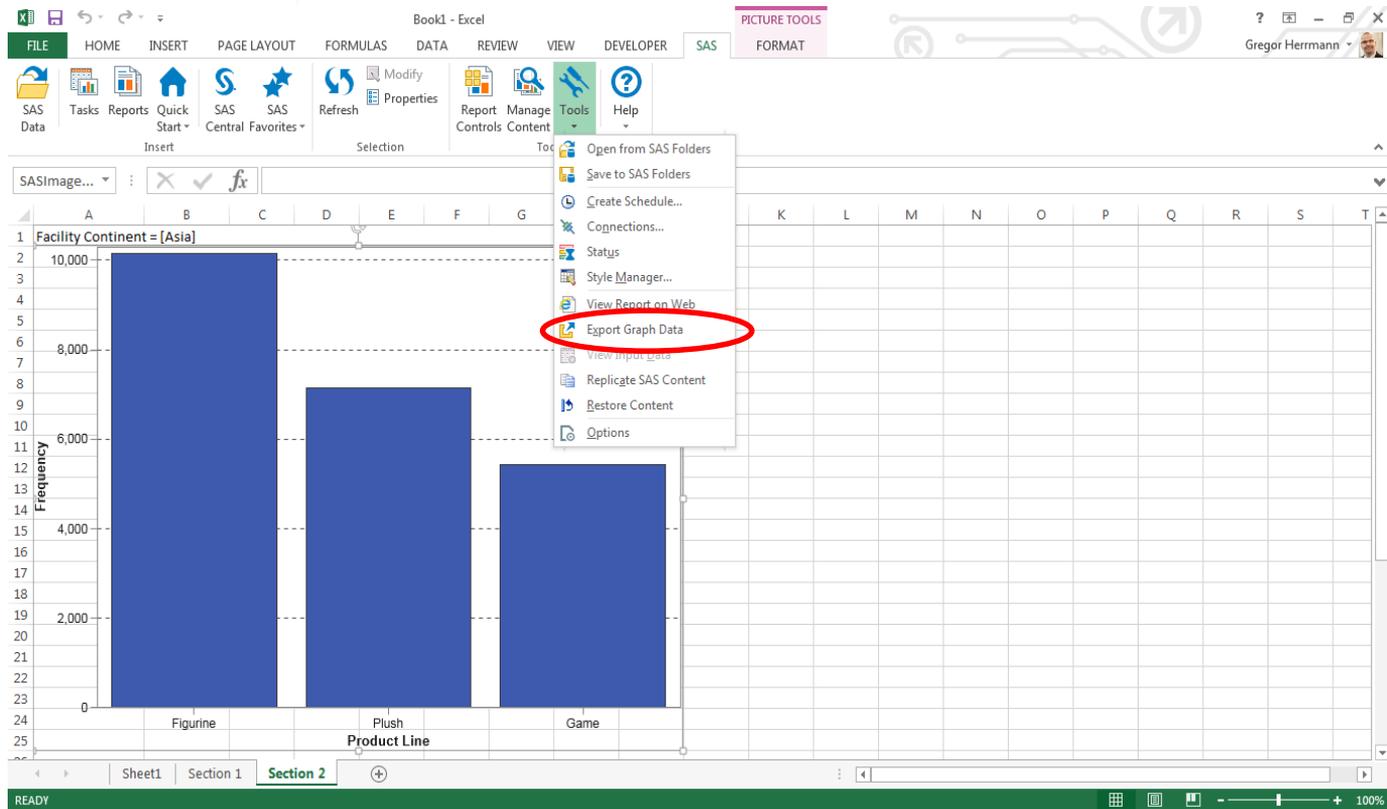
0.02 0.1
0.05

Product Line	Product Brand	Product Make	Product Sale	Frequency Percent	Sale Increase
Figurine	Toy	Athlete	41,401	6.59%	2,103
		Firefighter	41,230	6.56%	2,094
		Movie Star	39,147	6.16%	1,989
		Musician	39,827	6.32%	2,023
		Police	42,136	6.71%	2,141

Product Sale Product Quality

ADD-IN FOR MICROSOFT OFFICE

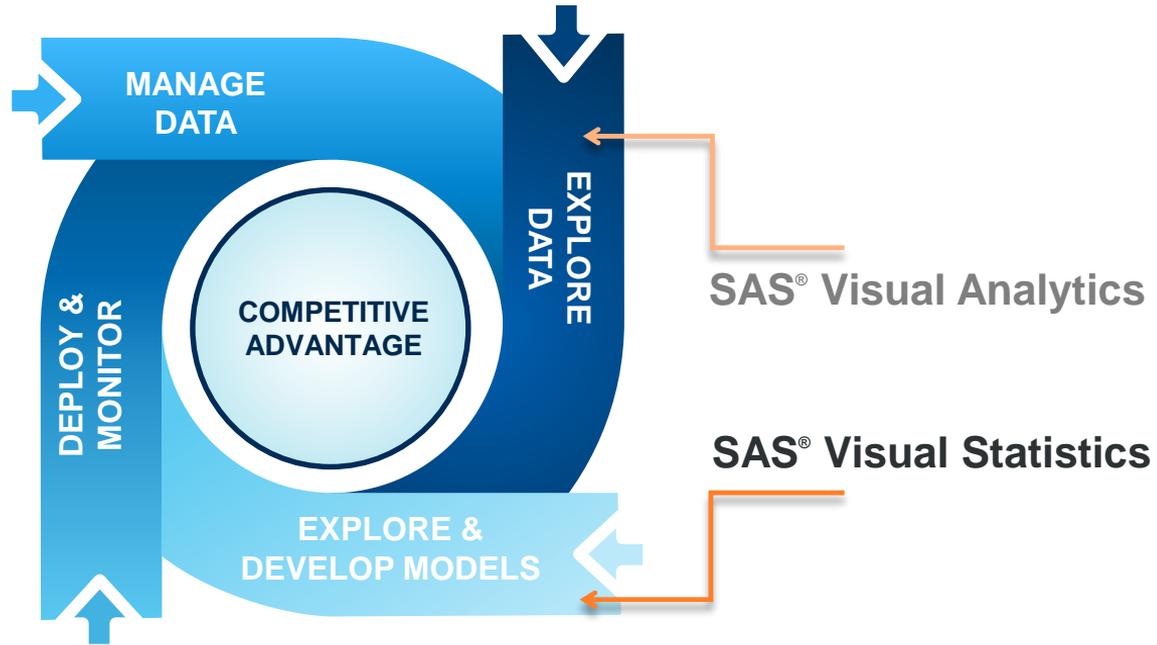
EXTRACT DATA BEHIND VA REPORT



- 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



Regression



Clustering



Group-By



HOW IT CAN BE USED?

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

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

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

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

THANKS



**THE
POWER
TO KNOW.**