fans
NORDIC SAS USER GROUP

VISUAL ANALYTICS

FANS Nätverksmöte #7

2021-02-11

sas

Agenda från föregående möte

2020-09-02

Vår första digitala träff

- Välkomna till höstens träffar!
- Tips för att skapa en framgångsrik dashboard
- Att jobba med olika datastrukturer i VA: Normaliserat data vs Analystabeller vs Långa/tunna tabeller vs vilken struktur som helst.

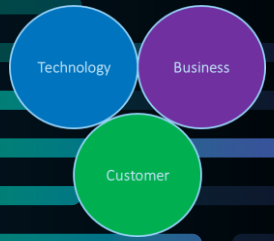
Paus, 15 minuter

- Kundpresentation - Lönelänken 3.0
- Visual Analytics 8.5.1
- Bestämma tema för nästa nätverksträff

Dagens Tema:
Tips & Tricks

Agenda

Tid	Ämne	Presentatör
13:00	Välkomna	Daniel Ringqvist, SAS
13:15	Tema för dagen och varför	Kalle Magnusson, SAS
	Tips & Tricks del 1	Kalle Magnusson, SAS
14:15	***Fika***	
14:30	Tips & Tricks del 2	Kalle Magnusson, SAS Fredrik Englund, Infotrek
15:30	Lotteri, diskussion och avslutning	



TIPS & TRICKS

Even small things matters

Carl-Olow Magnusson
Nordic Senior Visualization Advisor

Do you recognize yourself?

Before we start…

All tips & tricks presented during this session are…

- … based on real world use-cases, either from customers or from SAS Employees
- … done in SAS Visual Analytics 8.5.1
- … could be features you didn't know exists ☺

You might know many of these tips & tricks already, but lean back and enjoy the show and wait for the next one ☺

My tips & tricks rating system ☺

Easy – Requires just one or few clicks

Intermediate - Requires one or few clicks and some other actions/objects/parameters

Expert - Requires multiple clicks, multiple actions/objects **parameters** and might require programming skills

Tips & Tricks Index

1. Why small things matters…
2. A list table is more than just a simple list table
3. Create moving average with just a few clicks
4. AggregateCells Function
5. The mystery behind the hidden role
6. Struggling with short pages
7. Where are my Containers?
8. How can I pass parameters in VA report URL?
9. The new AggregateTable Function – what is it good for?
10. IsSet for Success
11. An efficient way to create custom (dynamic) intervals/bins
12. Aggregate data feature in VA - what's in it for me?
13. How to use shape files to categorize geographic data
14. How to create a HTML file with links to VA reports

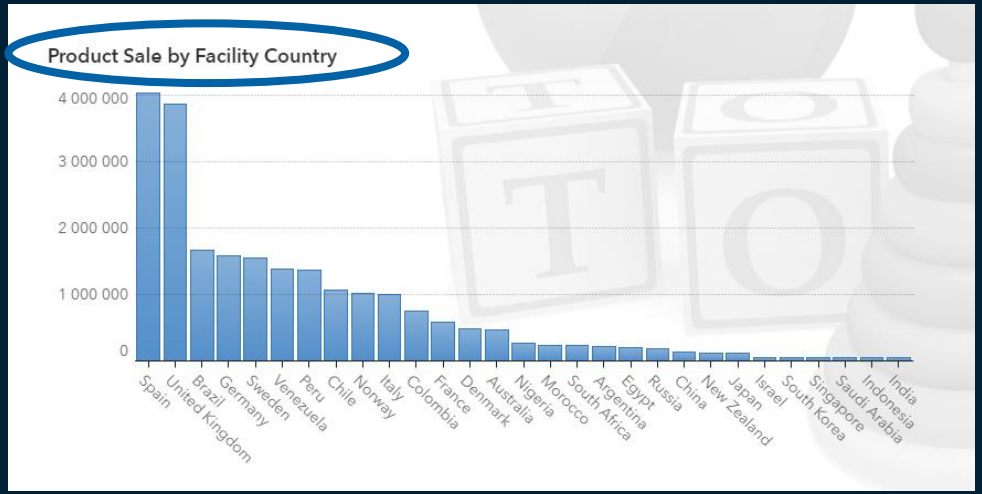
Tips & Tricks #1

Why small things matters…

Why small things matters…

Tips & Tricks #1

What is the simplest way to change your chart title?

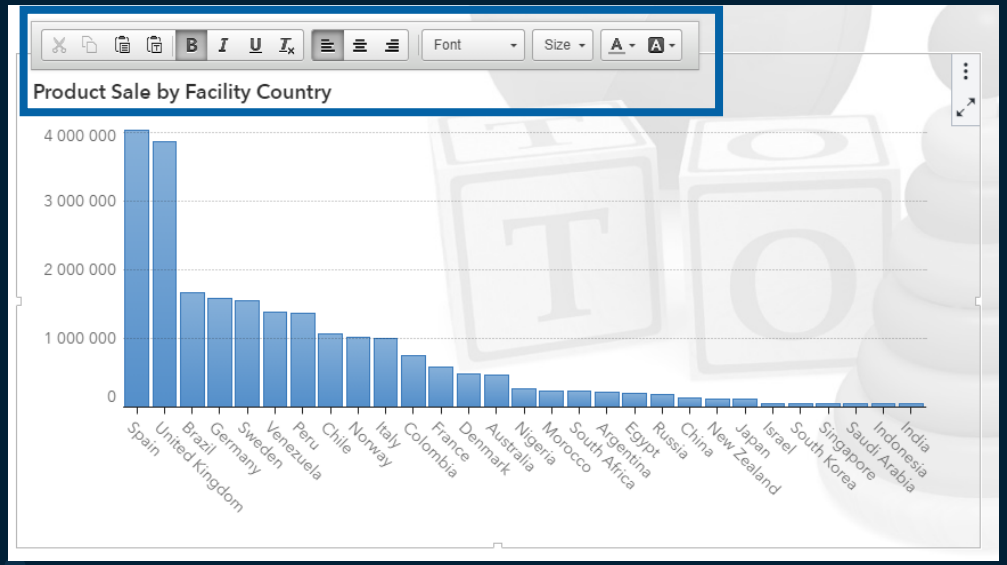


Why small things matters…

Tips & Tricks #1 - Solution

DEMO

Just double-click on the title and a text editor will appear…



- Edit text
- Change font
- Change font style attributes
- Align text

Tips & Tricks #2

A list table is more than just a simple list table

A list table is more than just a simple list table

Tips & Tricks #2

Facility Country	Product Sale	Product Material Cost ▲	Product Cost of Sale	Customer Satisfaction	Sales Rep Rating
India	56 696	8 970	45 165	42 %	32 %
Indonesia	59 034	9 436	47 810	40 %	28 %
Saudi Arabia	61 040	9 940	48 643	40 %	28 %
Singapore	63 078	10 353	51 072	44 %	34 %
South Korea	63 147	10 438	51 288	40 %	28 %
Israel	65 226	11 157	53 860	41 %	29 %
Japan	121 247	19 869	98 184	41 %	30 %
New Zealand	122 873	21 029	103 189	45 %	31 %
China	140 487	26 097	113 268	41 %	31 %

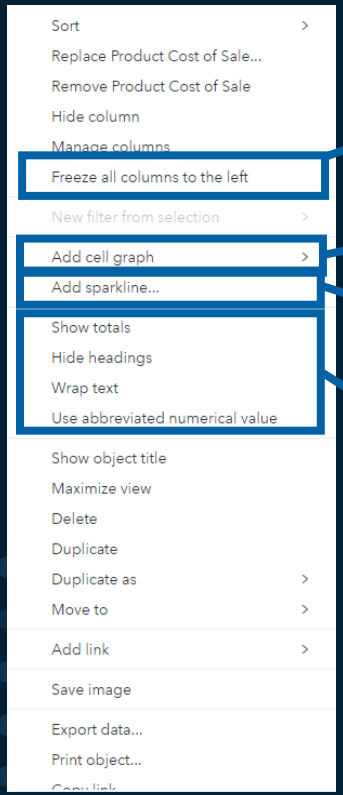
Facility Country	Product Sale ▼	Customer Satisfaction	Sales Rep Rating	Sales Trend
Spain	4 026 412	46 %	36 %	
United Kingdom	3 876 165	47 %	38 %	
Brazil	1 669 142	73 %	73 %	
Germany	1 591 235	42 %	31 %	
Sweden	1 555 995	45 %	33 %	
Venezuela	1 389 260	61 %	54 %	
Peru	1 368 653	91 %	96 %	
Chile	1 070 876	77 %	78 %	
Norway	1 017 861	45 %	32 %	

A list table is more than just a simple list table

DEMO

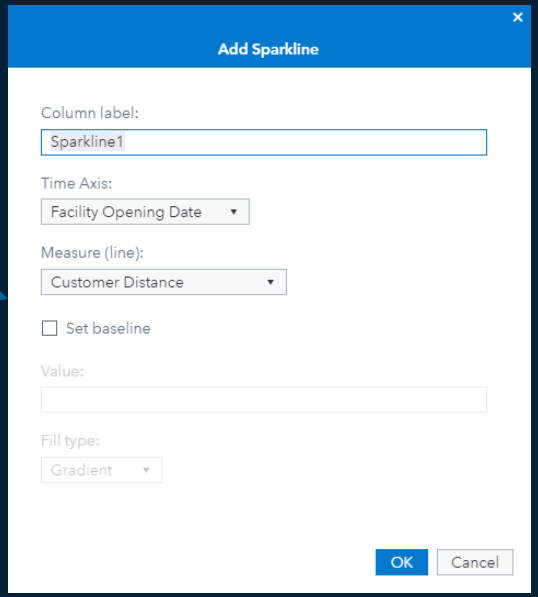
Tips & Tricks #2 - Solution

Just right-click on your list table (or column) and you have some interesting options



Will freeze columns to the left of selected column, very useful when you have very wide list tables

Quick access to common options

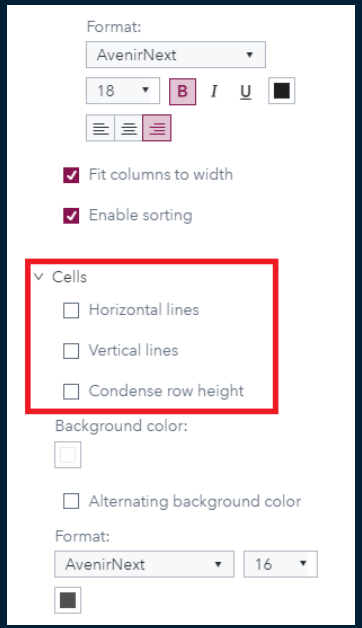


A list table is more than just a simple list table

Tips & Tricks #2 - Solution

Some other options that might be useful using list tables…

These attributes are found in the right option panel



Product Sale ▲	Trend	Customer Satisfaction	Sales Rep Rating
5 845 531		45 %	35 %

<u>More</u>: Do not forget the right rules panel ☺
Here you can add gauges or highlight cells in your list table

	Product Sale ▲	Trend	Customer Satisfaction	Sales Rep Rating
	5 845 531		45 %	35 %

Tips & Tricks #3

Create moving average (and other calculations) with just a few clicks

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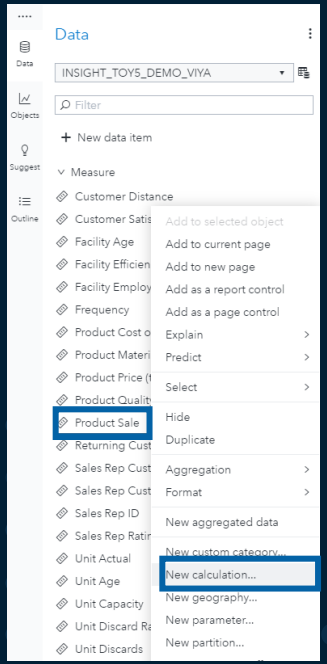
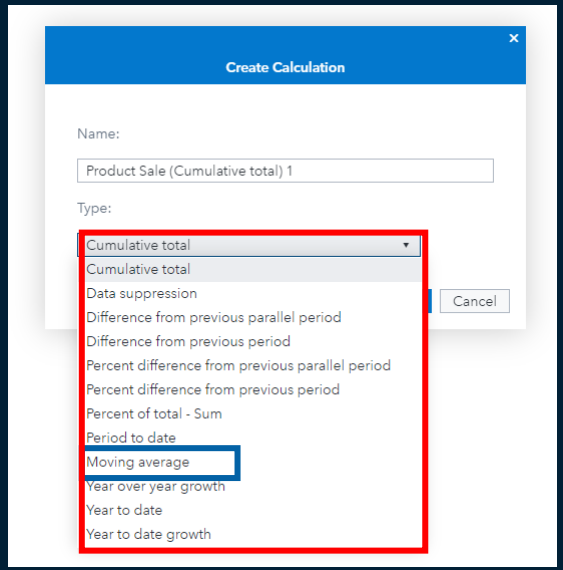
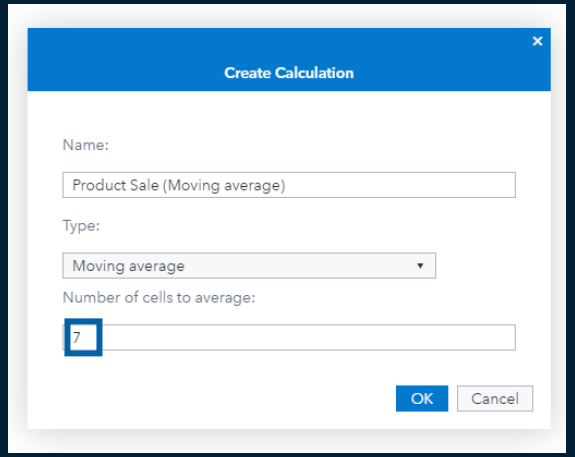
Tips & Tricks #3

Moving average calculations has become a very popular, especially since it became a popular measurement in corona/covid-19 reporting





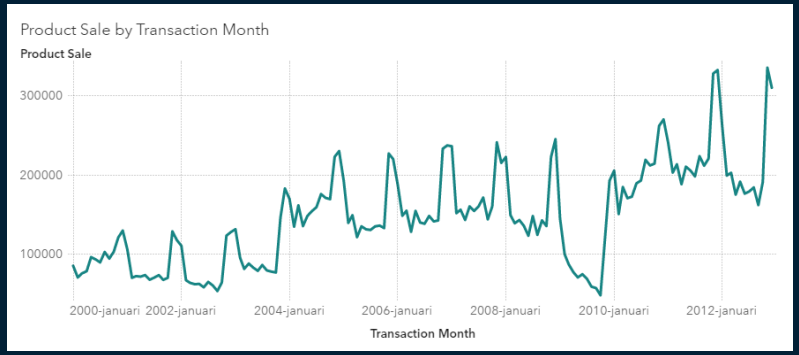


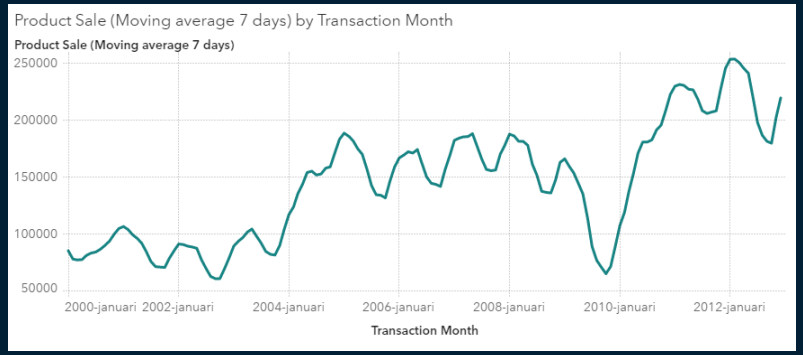
Create moving average (and other calculations) with just a few clicks

DEMO

Tips & Tricks #3 - Solution

Moving average calculations has become a very popular, especially since it became a popular measurement in corona/covid-19 reporting





Tips & Tricks #4

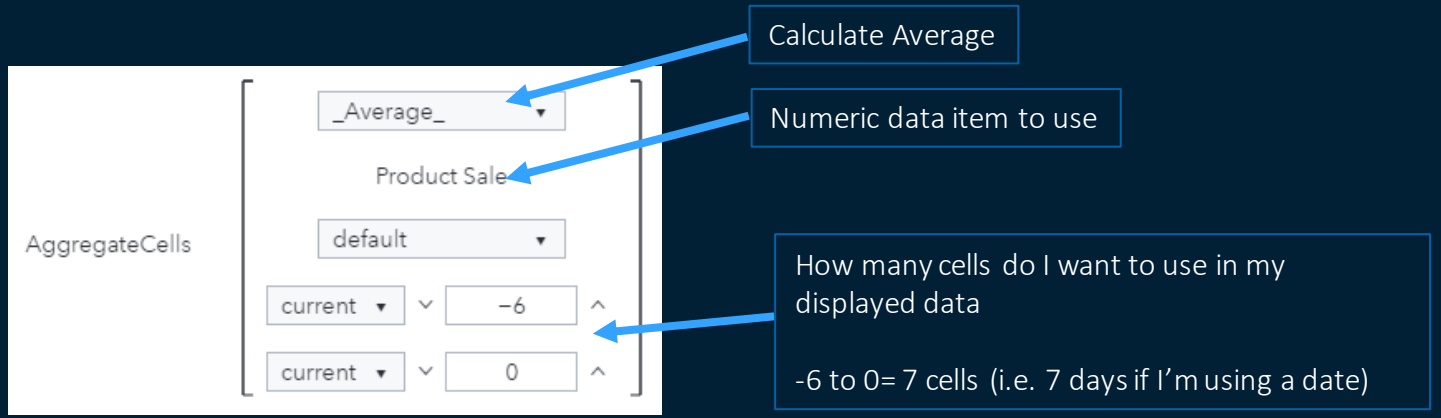
AggregateCells Function

AggregateCells Function

Tips & Tricks #4

Remember moving average example from our previous tip? It does use the AggregateCells Function ☺. The good thing about AggregateCells, I do not need to specify a 2nd category/date.

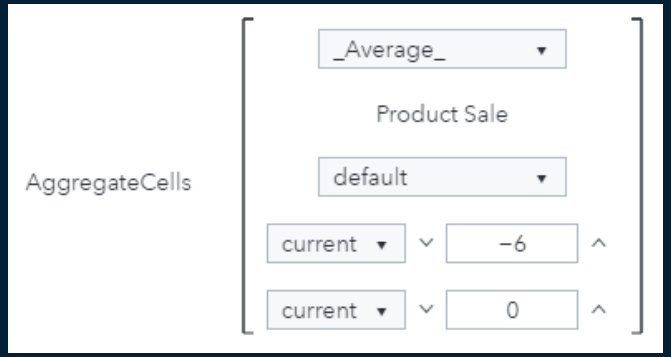
AggregateCells will always be calculated based on what is visualized ☺



AggregateCells Function

Tips & Tricks #4 – Example #1

Product Sales (Moving Average)



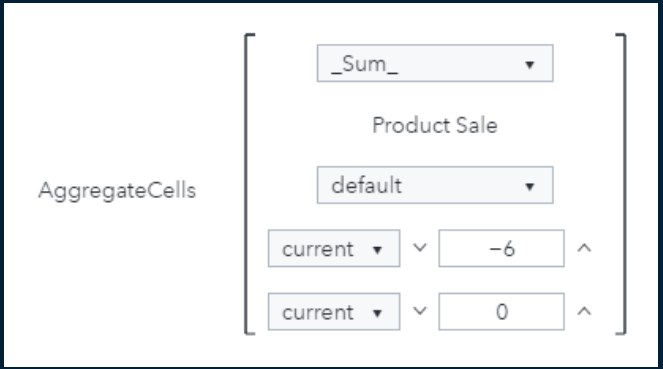
Transaction Month	Product Sale	Product Sale (Moving average)
2000-januari	85620	85620
2000-februari	70959	78290
2000-mars	76071	77550
2000-april	78772	77855
2000-maj	96461	81577
2000-juni	93600	83581
2000-juli	89888	84482
2000-augusti	102937	86956
2000-september	94672	90343
2000-oktober	103226	94222
2000-november	121350	100305
2000-december	129857	105076
2001-januari	106063	106856
2001-februari	70462	104081
2001-mars	72563	99742
2001-april	71977	96500
2001-maj	73894	92309
2001-juni	68077	84699
2001-juli	70697	76247
2001-augusti	73799	71638
2001-september	67903	71273
2001-oktober	70471	70974
2001-november	128887	79104

Avgerage

AggregateCells Function

Tips & Tricks #4 – Example #2

Product Sales (Rolling Sum 7 cells)



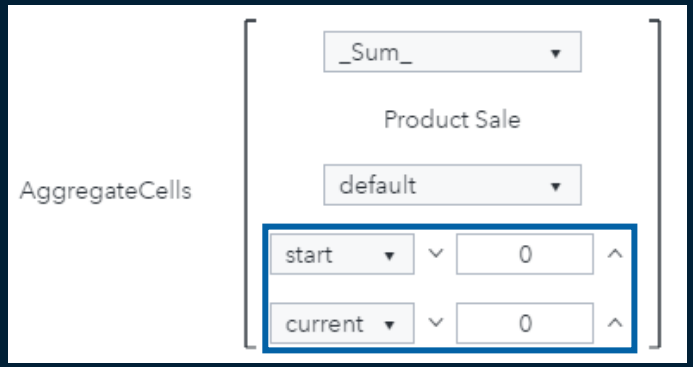
Transaction Month	Product Sale	Product Sale (Rolling Sum 7 cells)
2000-januari	85620	85620
2000-februari	70959	156579
2000-mars	76071	232650
2000-april	78772	311422
2000-maj	96461	407883
2000-juni	93600	501484
2000-juli	89888	591372
2000-augusti	102937	608689
2000-september	94672	632402
2000-oktober	103226	659557
2000-november	121350	702136
2000-december	129857	735531
2001-januari	106063	747994
2001-februari	70462	728567
2001-mars	72563	698193
2001-april	71977	675497
2001-maj	73894	646165
2001-juni	68077	592891
2001-juli	70697	533732
2001-augusti	73799	501468
2001-september	67903	498909
2001-oktober	70471	496817
2001-november	128887	553728

Sum

AggregateCells Function

Tips & Tricks #4 – Example #3

Product Sales (Cumulative until the end)



Calculation will start at cell 0 and sum all displayed cells

Transaction Month	Product Sale	Product Sale (Cumulative)
2000-januari	85620	85620
2000-februari	70959	156579
2000-mars	76071	232650
2000-april	78772	311422
2000-maj	96461	407883
2000-juni	93600	501484
2000-juli	89888	591372
2000-augusti	102937	694309
2000-september	94672	788981
2000-oktober	103226	892208
2000-november	121350	1013558
2000-december	129857	1143414
2001-januari	106063	1249477
2001-februari	70462	1319939
2001-mars	72563	1392502
2001-april	71977	1464479
2001-maj	73894	1538372
2001-juni	68077	1606449
2001-juli	70697	1677146
2001-augusti	73799	1750946
2001-september	67903	1818849
2001-oktober	70471	1889319
2001-november	128887	2018206

Sum

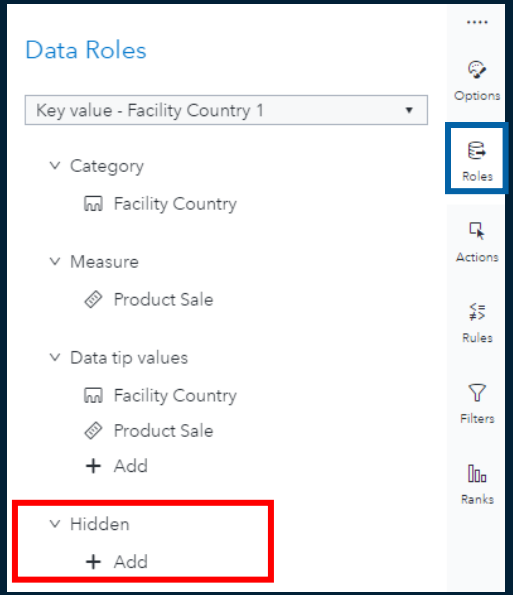
Tips & Tricks #5

The mystery behind the hidden role

The mystery behind the hidden role

Tips & Tricks #5

You might have seen it; hidden data role can be used in most report objects in SAS Visual Analytics. This role can accept one or more category or date data items. Hidden role data items are included in the object, but they not displayed.



Sounds interesting, but when do I need to use hidden roles?

Answer: When I need data items that I do not want to display in my chart

- Display rules
- Calculations dependent on other columns
- Mapping data sources
- Passing parameters to a 3rd party application

The mystery behind the hidden role

Tips & Tricks #5 - Solution

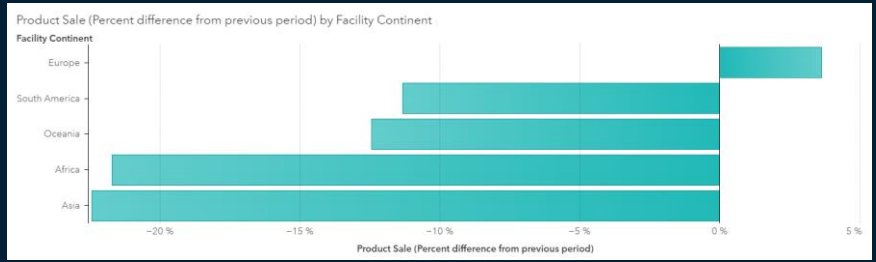
DEMO

Three examples:

List table showing display rules based on Facility Country and not showing it ☺

Facility City	Product Sale	Product Cost of Sale
Rome	1004142	841599
Riyadh	61040	48643
Rio de Janeiro	577018	467919
Perth	114671	97402
Paris	583330	495175
Oslo	1017861	852218
Novosibirsk	69768	55554
New Delhi	56696	45165
Moscow	58012	46932
Melbourne	109758	93036

Report object showing a periodic measure, percentage difference compared with last period



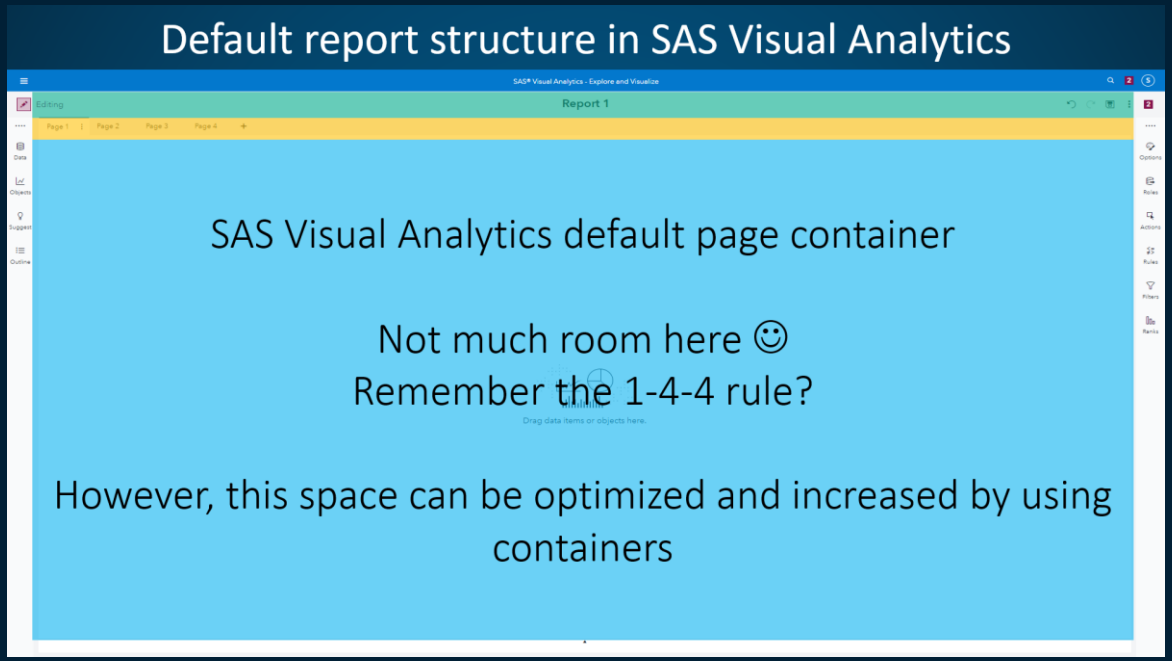
Tips & Tricks #6

Struggling with short pages

Struggling with short pages

Tips & Tricks #6

Is there a way to make pages larger?



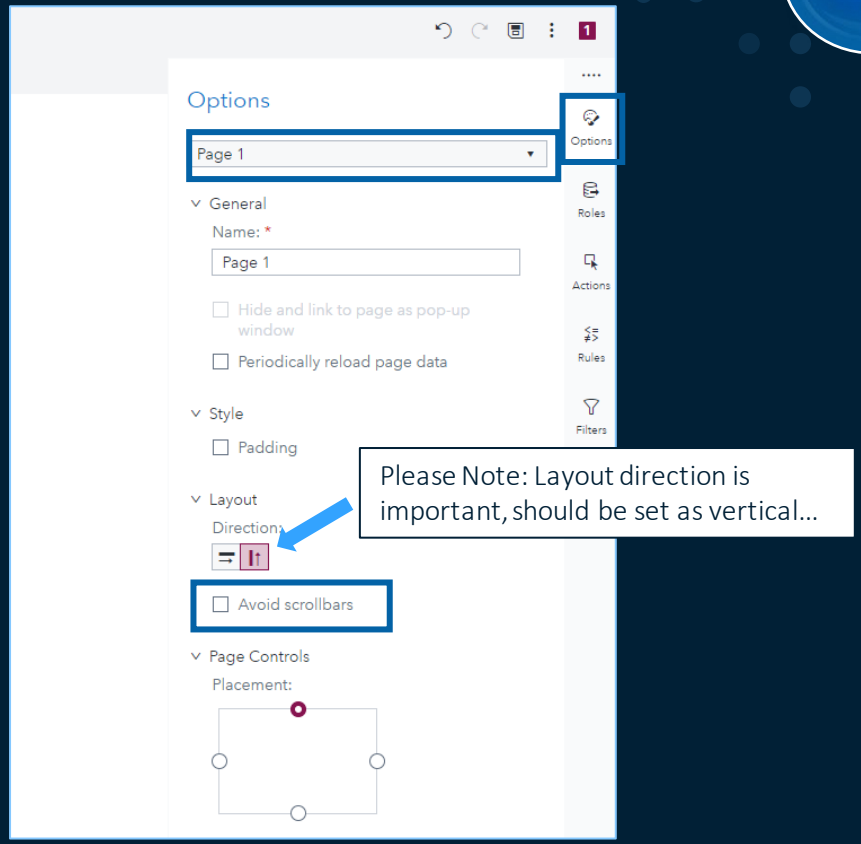
Struggling with short pages

Tips & Tricks #6 - Solution

Is there a way to make pages larger?

Select right option panel and the page you want to enlarge, deselect “Avoid scrollbars” and that’s it ☺

Now, add multiple containers to enlarge your page



Tips & Tricks #7

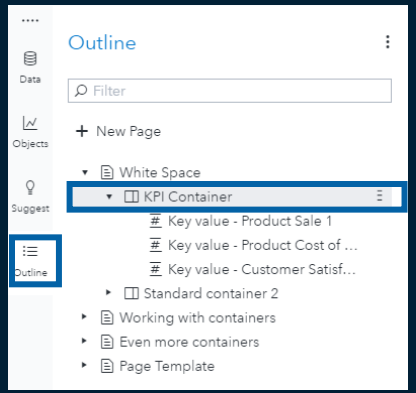
Where are my Containers?

Where are my Containers?

Tips & Tricks #7

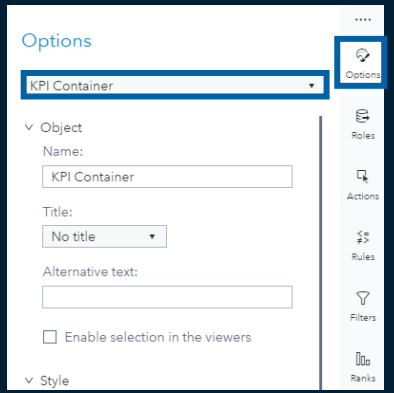
When working with containers, it can be quite difficult to select a specific container in your page. What are my options?

Product Sale	Product Cost of Sale	Customer Satisfaction
23 021 376	19 117 365	52 %



Either we can use the left panel “Outline” feature to find and select your container…

… or you can use the right panel “Option” menu to select your container using the upper selection list



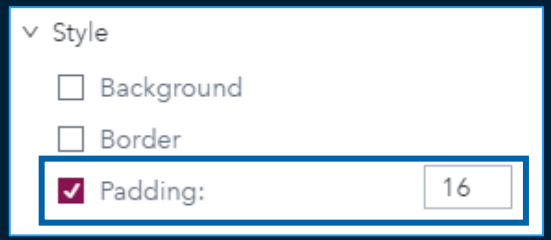
Where are my Containers?

DEMO

Tips & Tricks #7 - Solution

But is there a way to make it possible to select a container directly on my page?
Yes there is, by activating padding in your container ☺

Product Sale	Product Cost of Sale	Customer Satisfaction
23 021 376	19 117 365	52 %



Select your container and go to the right panel option menu, under “Style” you can activate padding (white space).

BTW, using padding (or white space) will make visuals easier to read ☺

Tips & Tricks #8

How can I pass parameters in VA report URL?

How can I pass parameters in VA report URL?

Tips & Tricks #8

Question: I have an URL to a VA report, is there a way to pass parameter values in the URL to filter the report?

https://viyawaves.sas.com/SASVisualAnalytics/?reportUri=%2Freports%2Freports%2F6a7957dc-05db-416c-86d5-18f3ef590e4d&sectionIndex=0&objectName=vi6&quickView=true&sas-welcome=false

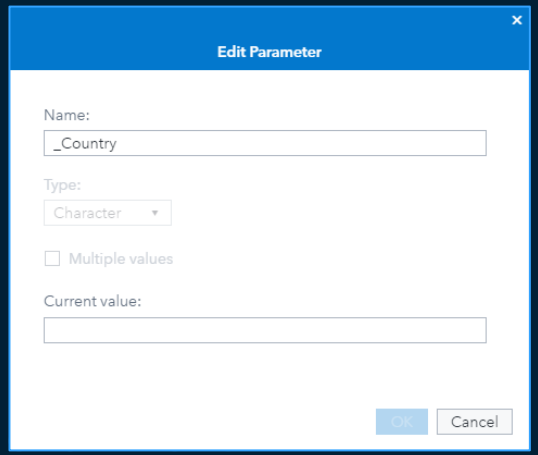
How can I pass parameters in VA report URL?

DEMO

Tips & Tricks #8 - Solution

One solution is to create a parameter in VA and use that parameter in a data source filter

Parameter _Country is created in VA



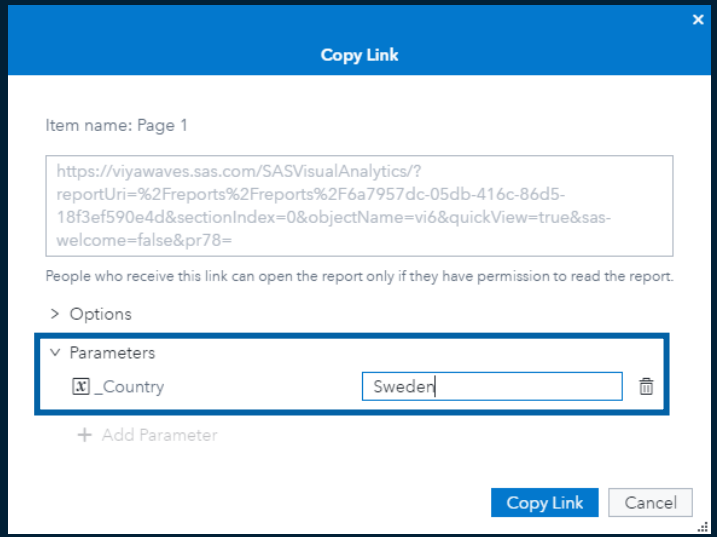
\+

Parameter _Country is then used in a data source filter

(Facility Country = _Country)

\+

Finally, use the built in “Copy Link” feature to build the URL link with parameter(s)



Tips & Tricks #9

The new AggregateTable Function – what is it good for?

The new AggregateTable Function – what is it good for?

Tips & Tricks #9

Challenge: I want to calculate percentage of total, so far so good…

Facility Continent	Product Sale	Product Sale % of total
Europe	14 147 864	61 %
South America	6 483 015	28 %
Africa	962 386	4 %
Asia	825 542	4 %
Oceania	602 568	3 %
	Sum: 23 021 376	Total: 100 %

The new AggregateTable Function – what is it good for?

Tips & Tricks #9

Challenge: But when I add a second category into my list tabel, percentage of total is calculated on all visual rows

Is there a way to lock percentage of total on continent level (sub-totals)?

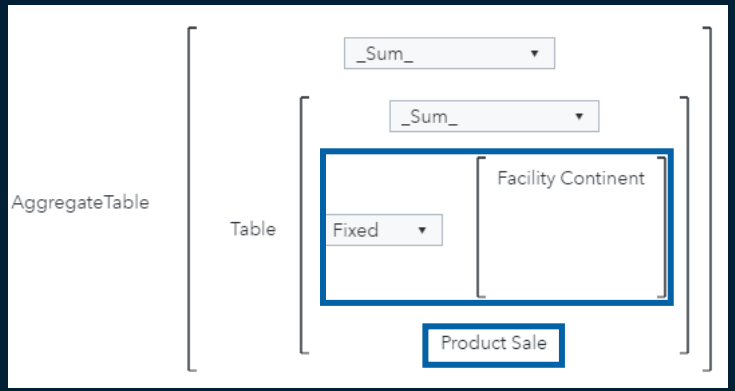
Facility Continent	Facility Country	Product Sale	Product Sale % of total ▾
Europe	Spain	4 026 412	17 %
Europe	United Kingdom	3 876 165	17 %
South America	Brazil	1 669 142	7 %
Europe	Germany	1 591 235	7 %
Europe	Sweden	1 555 995	7 %
South America	Venezuela	1 389 260	6 %
South America	Peru	1 368 653	6 %
South America	Chile	1 070 876	5 %
Europe	Norway	1 017 861	4 %
Europe	Italy	1 004 142	4 %
South America	Colombia	761 669	3 %
Europe	France	583 330	3 %
Europe	Denmark	492 724	2 %
Oceania	Australia	479 695	2 %
Africa	Nigeria	277 147	1 %
Africa	Morocco	239 816	1 %
Africa	South Africa	237 676	1 %
South America	Argentina	223 414	1 %
Africa	Egypt	207 747	1 %
Asia	Russia	195 588	1 %
Asia	China	140 487	1 %
Oceania	New Zealand	122 873	1 %
Asia	Japan	121 247	1 %
Asia	Israel	65 226	0 %
Asia	South Korea	63 147	0 %
Asia	Singapore	63 078	0 %
Asia	Saudi Arabia	61 040	0 %
Asia	Indonesia	59 034	0 %
Asia	India	56 696	0 %
		Sum: 23 021 376	Total: 100 %

The new AggregateTable Function – what is it good for?

Tips & Tricks #9 - Solution

Using AggegateTable Function allows you to look a value on a specific category (or level). In this use-case we will lock Product Sales using Continent Category

New column: Product Sale (Continent)



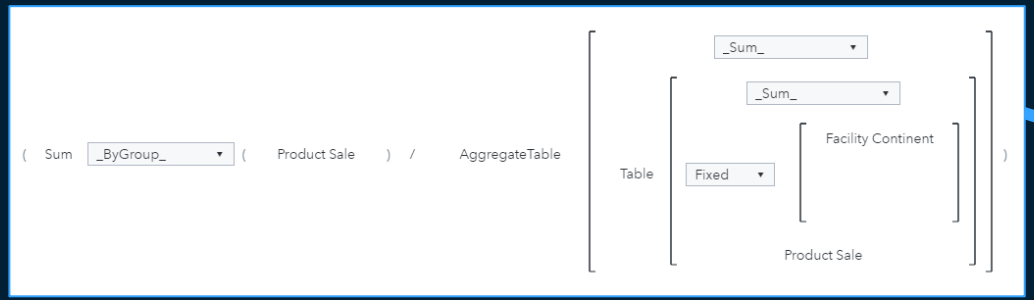
Facility Continent ▲	Facility Country	Product Sale	Product Sale (Continent)
Africa	Morocco	239 816	962 386
Africa	South Africa	237 676	962 386
Africa	Nigeria	277 147	962 386
Africa	Egypt	207 747	962 386
Asia	Indonesia	59 034	825 542
Asia	Russia	195 588	825 542
Asia	South Korea	63 147	825 542
Asia	China	140 487	825 542
Asia	Japan	121 247	825 542
Asia	Saudi Arabia	61 040	825 542
Asia	Singapore	63 078	825 542
Asia	India	56 696	825 542
Asia	Israel	65 226	825 542

The new AggregateTable Function – what is it good for?

DEMO

Tips & Tricks #9 - Solution

Final calculation for percentage of sub-totals (Continent)



Facility Continent ▲	Facility Country	Product Sale	Product Sale % of total	Product Sale % of Continent
Africa	Morocco	239 816	1 %	25 %
Africa	South Africa	237 676	1 %	25 %
Africa	Nigeria	277 147	1 %	29 %
Africa	Egypt	207 747	1 %	22 %
Asia	Indonesia	59 034	0 %	7 %
Asia	Russia	195 588	1 %	24 %
Asia	South Korea	63 147	0 %	8 %
Asia	China	140 487	1 %	17 %
Asia	Japan	121 247	1 %	15 %
Asia	Saudi Arabia	61 040	0 %	7 %
Asia	Singapore	63 078	0 %	8 %
Asia	India	56 696	0 %	7 %
Asia	Israel	65 226	0 %	8 %

Tips & Tricks #10

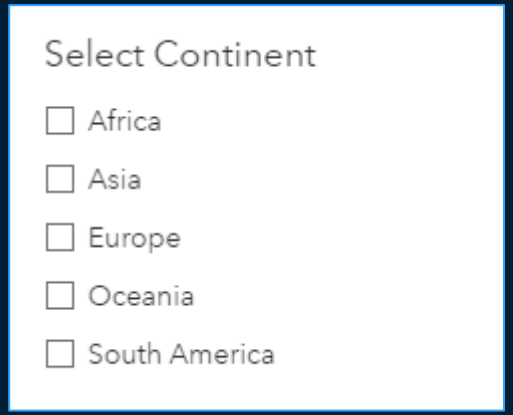
IsSet for Success

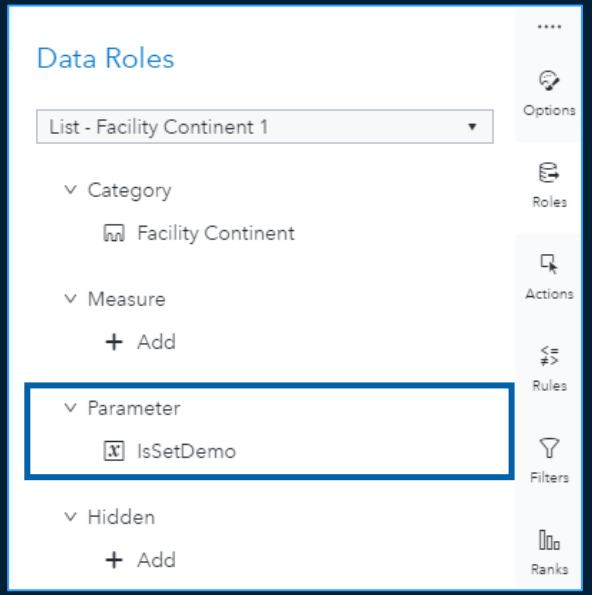
IsSet for Success

Tips & Tricks #10

IsSet is an operator that can be used in filters to check if a parameter is set or not

I have a list control object with continents



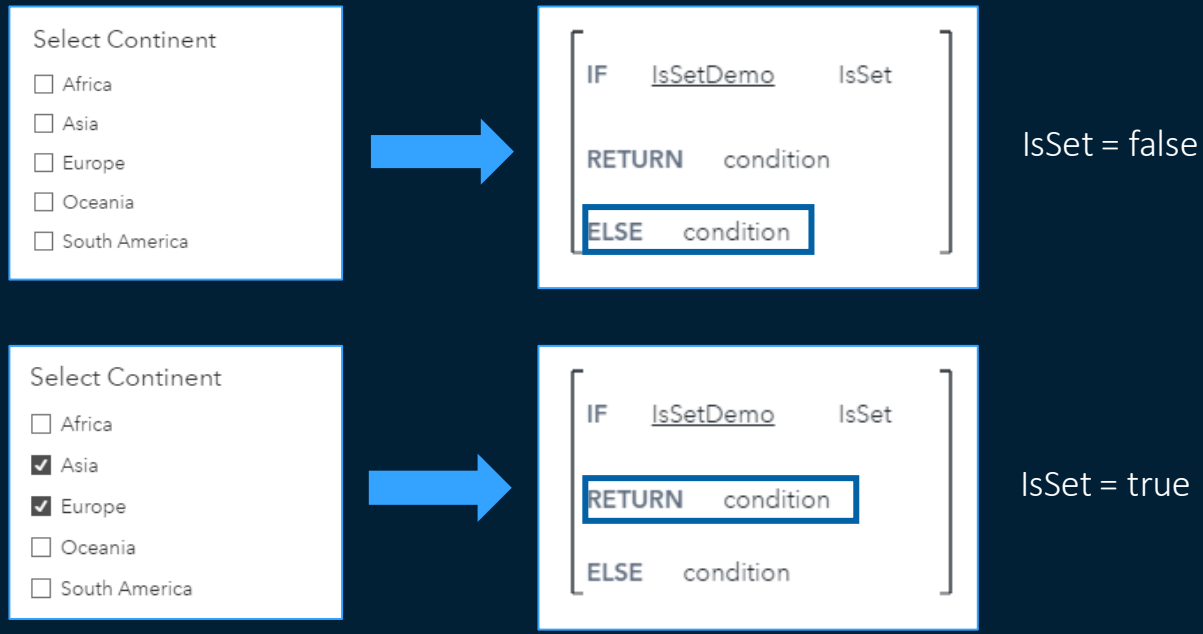


I have added IsSetDemo parameter into my list control object

IsSet for Success

Tips & Tricks #10 - Solution

IsSet is an operator that can be used in filters to check if a parameter is set or not



IsSet for Success

Tips & Tricks #10 - Solution

IsSet is an operator that can be used in filters to check if a parameter is set or not

I have two real life examples where I used IsSet:

1. In one report two list control objects are active, but end-users can only do selections in one of them. Otherwise, unexpected or false result can appear

2. A line chart is connected to a list control object where many selections are available. If no selections are active, the line chart will be very busy, ugly and hard to read. IsSet is used to force end-user to do at least one selection…

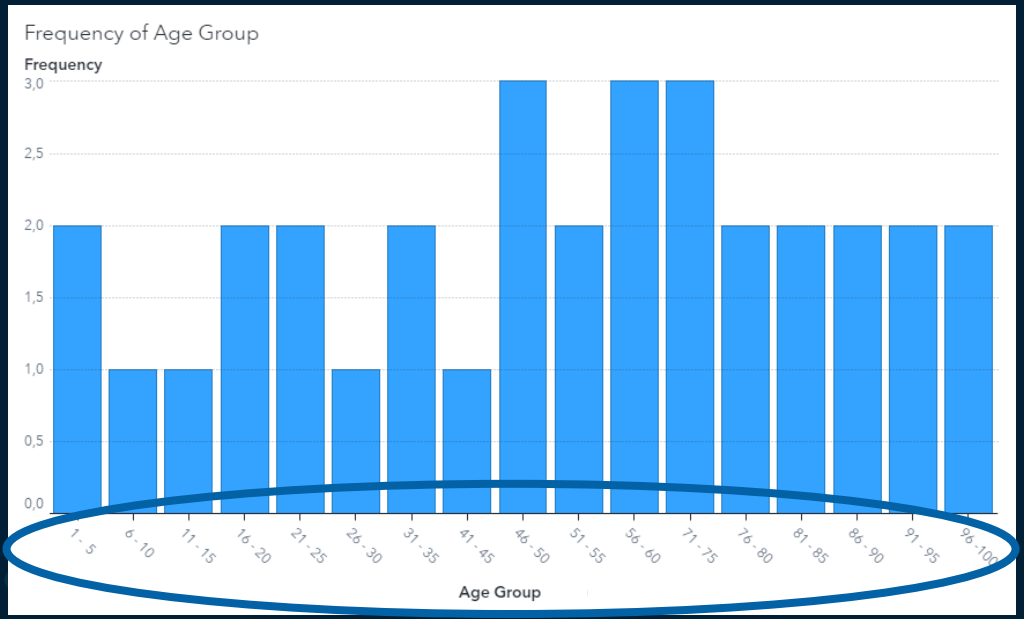
Tips & Tricks #11

An efficient way to create custom (dynamic) intervals/bins

An efficient way to create custom (dynamic) intervals/bins

Tips & Tricks #11

I have an age column and I want to create an Age Group category with intervals by 5 years



I know you can use functions like custom categories or creating a new data item using nested if-statements. But this will require a lot of typing/clicking and I'm lacy.

Is there a more efficient and dynamic way to do this?

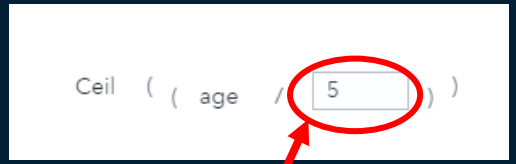
An efficient way to create custom (dynamic) intervals/bins

Tips & Tricks #11 - Solution

For simplicity and educational reasons, I've used two calculations.
But you can do this using one calculation…

CEIL function will always round up to the nearest integer

Calculation 1 (Age Group Tmp)



I want my age group intervals by 5 years…

You can use parameter value to make this even more dynamic

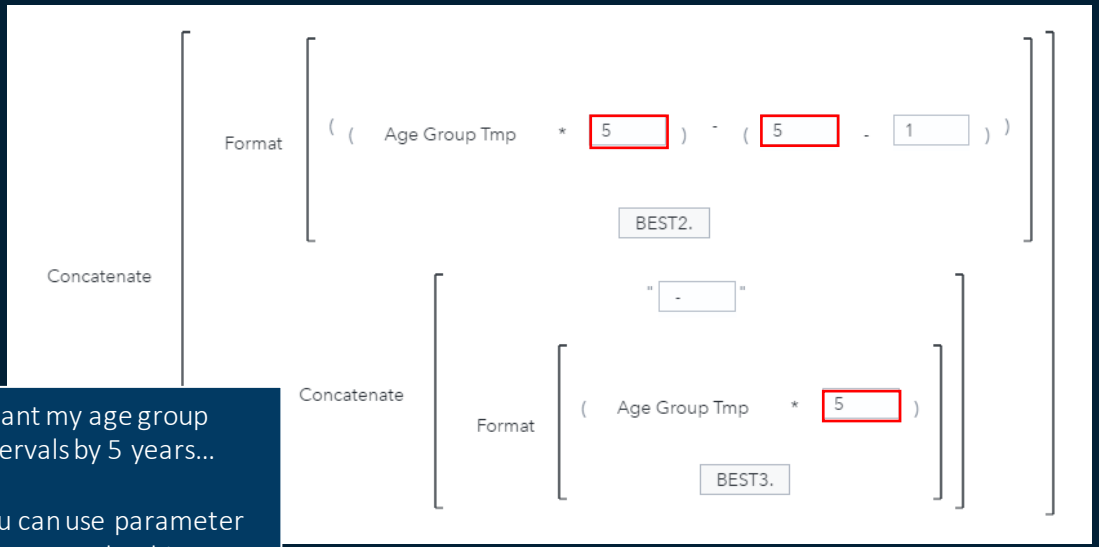
Age Group Tmp ▲	age
1	3
1	5
2	7
3	12
4	19
4	16
5	21
5	25
6	27
7	34
7	33
9	45
10	50
10	48
10	47

An efficient way to create custom (dynamic) intervals/bins

Tips & Tricks #11 - Solution

For simplicity and educational reasons, I've used two calculations.
But you can do this using one calculation…

Calculation 2 (Age Group) → creating age group category with convenient labels for better visualization



I want my age group intervals by 5 years…

You can use parameter value to make this even more dynamic

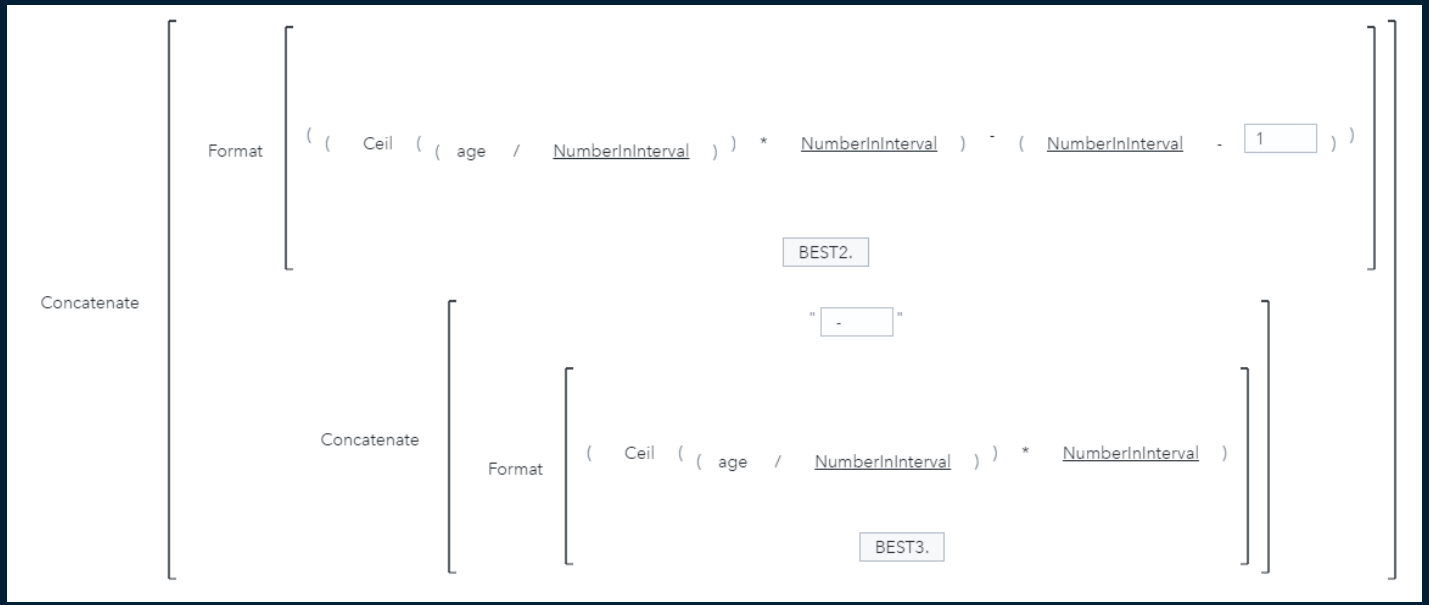
age ▲	Age Group
3	1 - 5
5	1 - 5
7	6 - 10
12	11 - 15
16	16 - 20
19	16 - 20
21	21 - 25
25	21 - 25
27	26 - 30
33	31 - 35

An efficient way to create custom (dynamic) intervals/bins

Tips & Tricks #11 - Solution

DEMO

All-in-one and dynamic version using parameter *NumberInInterval* to set number within each interval.



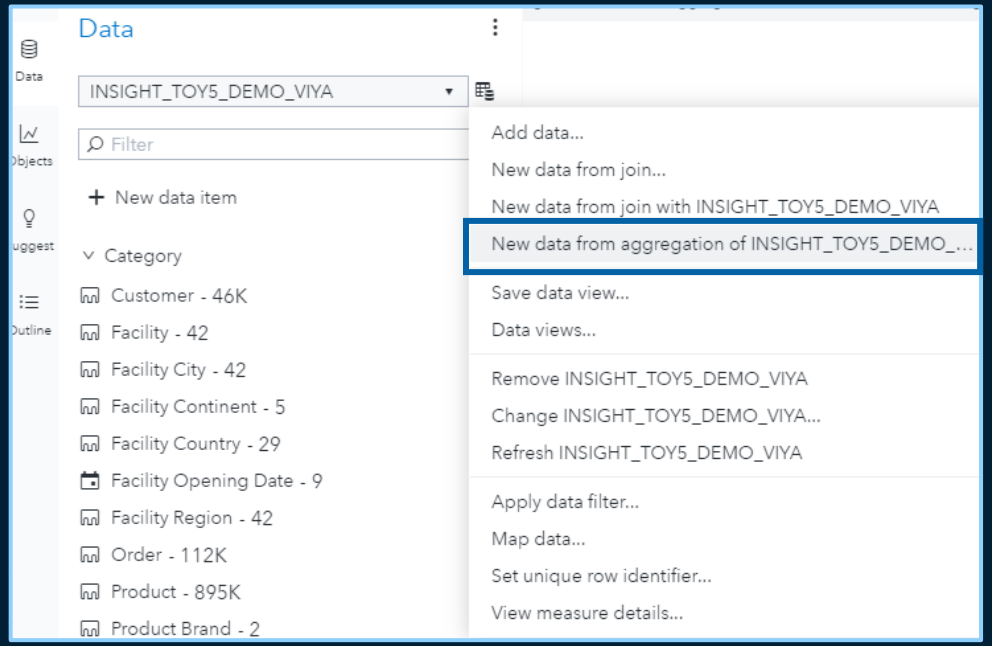
Tips & Tricks #12

Aggregate data feature in VA - what's in it for me?

Aggregate data feature in VA - what's in it for me?

Tips & Tricks #12

Since VA version 8.3 a new feature is available to aggregate data directly in VA.
When or why is this feature useful?



Aggregate data feature in VA - what's in it for me?

Tips & Tricks #12

Use case scenario: I want to analyze number of unique orders per day and lock that data on a daily level for further analysis…

Transaction Date ▲	Distinct Orders
01/19/2000	11
01/20/2000	11
01/21/2000	11
01/24/2000	11
01/25/2000	10
01/26/2000	9
01/27/2000	10
01/28/2000	11
01/31/2000	11
02/01/2000	9
02/02/2000	9
02/03/2000	11
02/04/2000	11
02/07/2000	11
02/08/2000	10

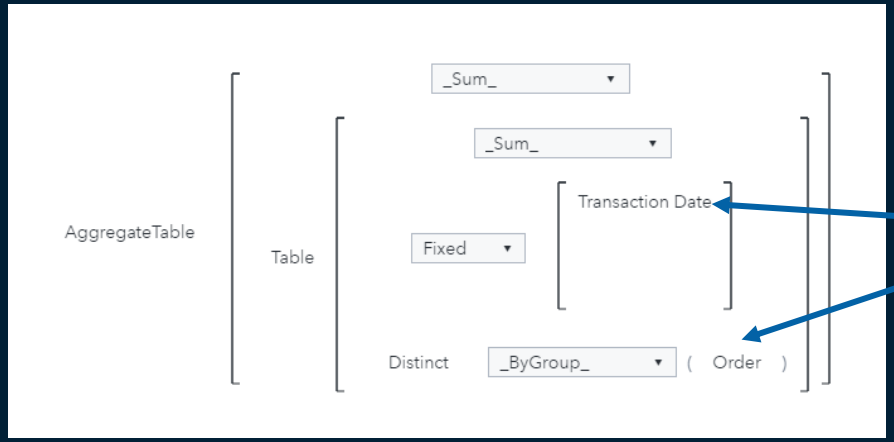
Example: I want to flag days with more than 10 orders as good selling days, and the rest as bad selling days

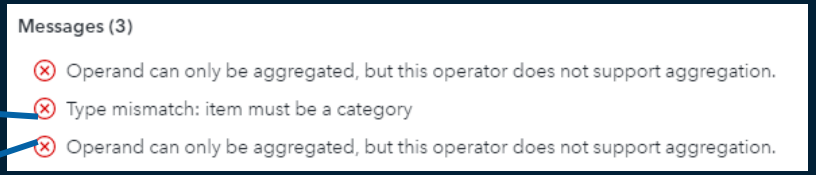
Aggregate data feature in VA - what's in it for me?

Tips & Tricks #12

Use case scenario: I want to analyze number of unique orders per day and lock that data on a daily level for further analysis…

A common challenge you might have discovered: Some aggregated measures cannot be nested or data types are not be supported in some aggregated functions



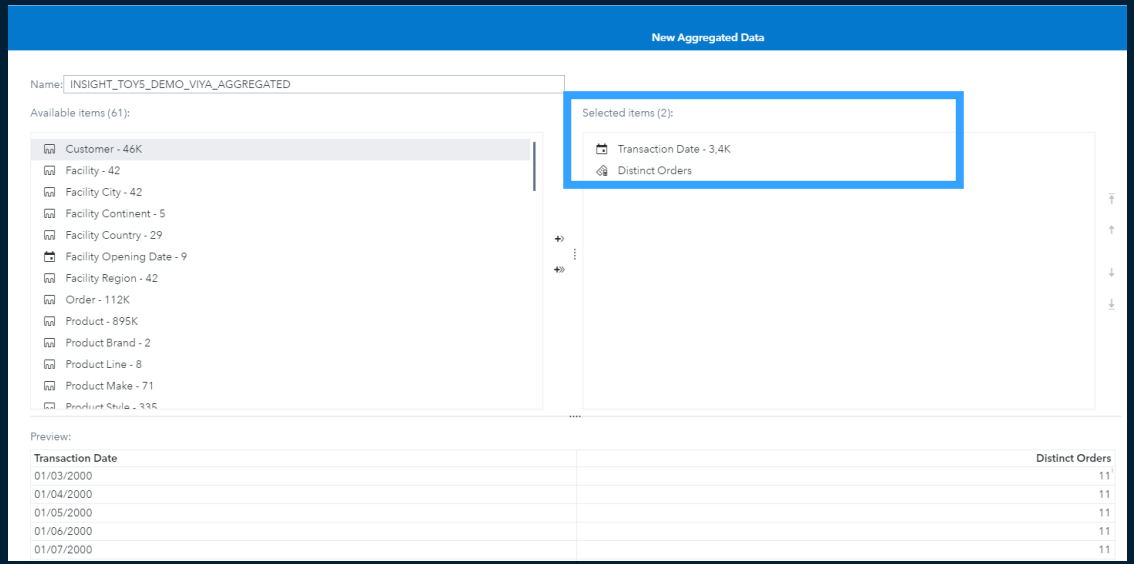


Aggregate data feature in VA - what's in it for me?

DEMO

Tips & Tricks #12 - Solution

Solution: Using the built in “Aggregate Data” feature in VA allow us to temporarily store results from custom created data items, such as aggregated calculations



Aggregate data feature in VA - what's in it for me?

Tips & Tricks #12

SUPER IMPORTANT

When you aggregate data in VA, a temporary result table is stored in CAS

This temporary result table is created each time when the report is opened and deleted when report is closed (or at logout)

Temporary tables are always stored in the user's CASUSER CASLib, this means that every user accessing the report will have his/her own temporary table

Tips & Tricks #13

How to use shape files to categorize geographic data

How to use shape files to categorize geographic data

Tips & Tricks #13

Challenge: Source data includes only individual coordinates of corona infected patients, but due to GDPR and patient safety, data needs to be aggregated onto a municipality level. Municipality level does not exist in source data…

This is demo data

How to use shape files to categorize geographic data

Tips & Tricks #13

I have a shape file with municipalities in Stockholm.

Can I use this shape file to map individuals to a specific municipality?

Shape file contains data that describes areas and can be used to plots polygons on geographical maps

How to use shape files to categorize geographic data

DEMO

Tips & Tricks #13 - Solution

Yes ☺

Using PROC GINSIDE

Currently available in SAS/GRAPH, and starting with SAS 9.4M6 PROC GINSIDE is available in SAS/BASE

Source data with individual coordinates

Shapefile with Swedish municipalities

Output data set

```
proc ginside data=casuser.swe_customers map=casuser.swe_kommuner_shape out=casuser.test dropmapvars;
ID id;
run;
```

ID column that is created during matching coordinates with shapefile, in our use-case id = municipality

sas

How to use shape files to categorize geographic data

Tips & Tricks #13 – Solution Code Example (copy-friendly)

```
cas;
caslib _all_ assign;
run;

*** Köra helt i CAS ***;
data casuser.swe_kommuner_shape (partition=(ID) orderby=(ID));
 set public.sverige_kommuner;
 ID=Kommunnamn;
run;

data casuser.swe_customers;
 set public.INSIGHT_TOY5_DEMO_ABT_TV_VIYA;
 if country='Sweden';
 X=CustomerLon;
 Y=CustomerLat;
 CustomerCount=1;
run;

proc ginside data=casuser.swe_customers map=casuser.swe_kommuner_shape out=casuser.test dropmapvars;
ID id;
run;

proc casutil;
 droptable casdata="insight_toy_kommuner" incaslib="casuser" quiet;
run;

proc fedsql sessref=CASAUTO;

create table casuser.feature_id_temp {options replace=true} as
select distinct t1.ID, t1.FeatureID
from casuser.swe_kommuner_shape as t1;

create table casuser.insight_toy_kommuner {options replace=true} as
select distinct t1.ID, t2.FeatureID,
sum(t1.CustomerCount) as CustomerCount
from casuser.test as t1, casuser.feature_id_temp as t2
where (t1.ID = t2.ID)
group by t1.ID, t2.FeatureID;

quit;

proc casutil;
 save casdata="insight_toy_kommuner" incaslib="casuser" outcaslib="casuser" replace;
 promote casdata="insight_toy_kommuner" incaslib="casuser" outcaslib="casuser";
run;
```

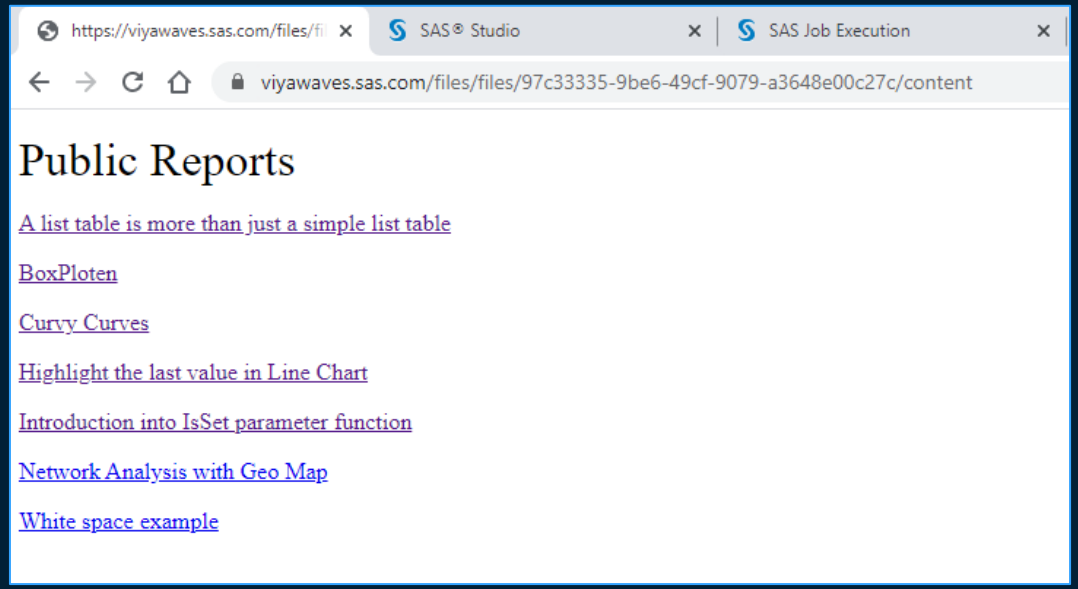
Tips & Tricks #14

How to create a HTML file with links to VA reports

How to create a HTML file with links to VA reports

Tips & Tricks #x

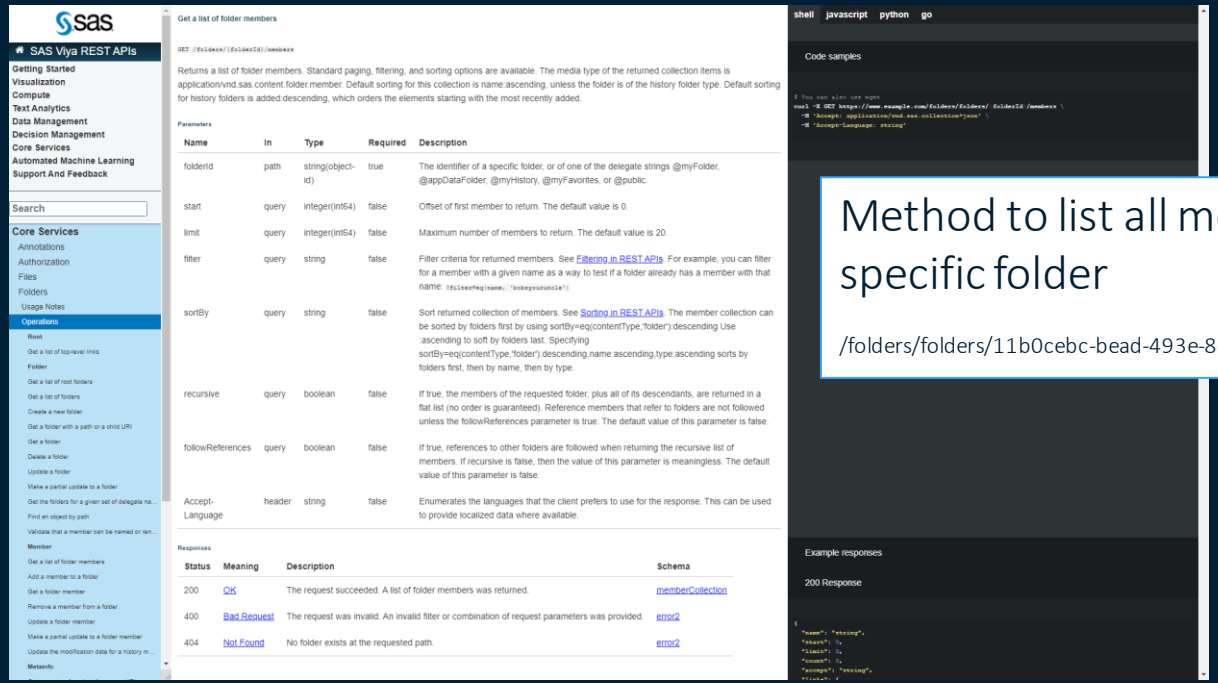
Challenge: We have a folder with public VA reports (quest login), is there a simple way to generate a HTML file with URL links to all these reports?



How to create a HTML file with links to VA reports

Tips & Tricks #x - Solution

In this use-case we used a REST API method to retrieve all available reports in a specific folder



Method to list all members in a specific folder

/folders/folders/11b0cebc-bead-493e-8ca0-6107e72d3f04/members

How to create a HTML file with links to VA reports

DEMO

Tips & Tricks #x - Solution

Example using SAS code

```
* Base URI for the service call;
%let BASE_URI=%sysfunc(getoption(servicesbaseurl));

* FILEREFs for the response and the response headers;
filename resp1 temp;

*** List all members in folder Tips&Tricks /folders/folders/11b0cebc-bead-493e-8ca0-6107e72d3f04 ****;
proc http url="&BASE_URI/folders/folders/11b0cebc-bead-493e-8ca0-6107e72d3f04/members"
 method='get'
 oauth_bearer=sas_services
 out=resp1;
run;
quit;

libname resp1 json; run;

* Filter reports only *;
data _list_reports;
  set resp1.items;
  if contentType='report';
run;
```

id	uri	added	typ	name
449b442f-51fb-4c0d-9d6a-2726581fb848	/reports/reports/9e38f19d-ea92-449a-81b0-9d825951f64f	2020-02-05T12:07:14.810Z	child	A list table is more than just a simple list table
c45627cc-6fae-4bc4-bfd5-1b44fd4663c5	/reports/reports/4e346454-f0f1-4fd5-9732-9730297fd26b	2020-02-05T12:05:30.094Z	child	BoxPloten
c3db1f54-92b0-4025-91e5-b22d87d3facb	/reports/reports/67ec801b-07c9-46c4-9c51-949a3dc6ee2c	2020-05-07T07:21:21.768Z	child	Curvy Curves
7fb05630-1162-4903-a67e-38f63dc87344	/reports/reports/8778e168-fc21-4d20-a01d-3b5041edf365	2020-05-18T09:57:55.725Z	child	Highlight the last value in Line Chart
97c85ea2-7dfa-4b0f-aebd-d0918c8a0ae6	/reports/reports/1df9fe9b-1adf-4f0f-91e8-fd578540250b	2020-02-05T12:06:47.908Z	child	Introduction into IsSet parameter function
49e32ec8-6b0f-4f14-ba5d-60ea3ae4f32b	/reports/reports/8c24e7f3-688c-4376-adf6-f38f1ae89a52	2021-01-14T09:02:58.130Z	child	Network Analysis with Geo Map
7ff1b188-5922-4831-b92b-74ae46482371	/reports/reports/c1a9cd99-ced8-4bfd-90a6-e8f4119177a9	2020-12-21T08:26:10.866Z	child	White space example

How to create a HTML file with links to VA reports

Tips & Tricks #x - Solution

More on REST API on SAS Viya

SAS Viya APIs

APIs for application developers and admins

SAS Viya APIs target enterprise application developers (who may or may not be versed in analytics), who intend to build on the work of model builders and data scientists. These developers want to deliver apps based on SAS Viya technology -- for example, to call an analytical model to score data.

SAS CAS APIs

APIs for analysts and data scientists

Cloud Analytic Services (CAS) REST APIs are used by data scientists and programmers (who are decidedly adept at analytics) and administrators, who need to interact with CAS directly and are knowledgeable about CAS actions. CAS actions are the building blocks of analytical work in SAS Viya.

https://developer.sas.com/guides/rest.html

IsSet Lazy Dog