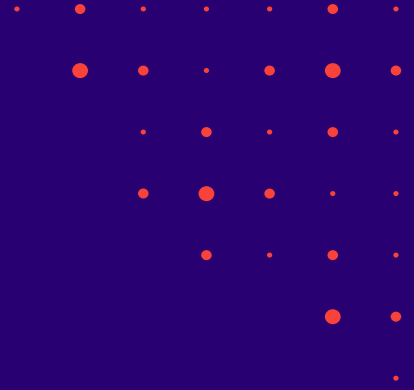


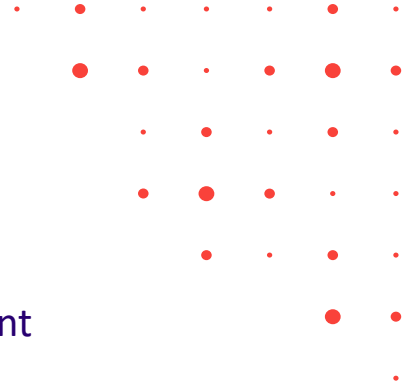
Enhancing Visual Analytics reports

with DDC and Viya Jobs

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Agenda



1. Introduction to Data Driven Content
2. Introduction to Viya Jobs
3. Combining DDC and Viya Jobs
4. "Connecting" Visual Analytics with a Viya Job
5. Demo

What is a Data Driven Content object

A Visual Analytics object that enables custom visualisations using HTML and JavaScript Input

Required input:

- Data
- URL to a local HTML file or an external webpage hosting the visualisation

Optional input:

- Object filters
- Filter/Selection link (from other VA objects)

Output:

- Whatever the HTML+JavaScript does
- Optional: Filter/Selection link

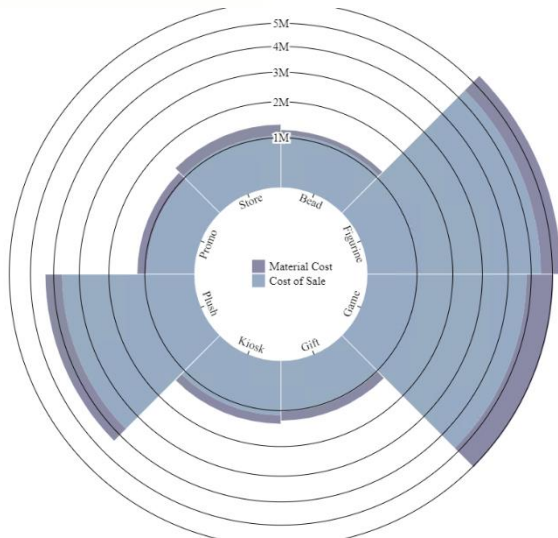
Prerequisites

Utility programs (JavaScripts) created by SAS (see [links](#))

Google Organizational Chart | [Code](#) | [Demo](#)



Employee ID	Employee Name	Manager ID ▲	Company	Depart
120259	Anthony Miller		Board of Directors	Executi
120261	Harry Highpoint	120259	Board of Directors	Executi
120266	Bao Krafve	120259	Board of Directors	Secreta
120260	Christine Fletcher	120259	Board of Directors	Executi
120262	Max Crown	120259	Board of Directors	Executi
120267	Belanda Rink	120259	Board of Directors	Secreta
120268	Jacques Villeneuve	120260	Board of Directors	Strategi
120269	Shrimatee Kagolanu	120260	Board of Directors	Strategi
120265	Wanda Branly	120262	Board of Directors	Group f
120264	Latonya Croome	120262	Board of Directors	Group f
120263	Bobby Cleverley	120262	Board of Directors	Group f



What is a Viya Job (Job Execution)

A modernised version of the classic Stored Process. Enables SAS code to be executed on the Viya platform. It can be accessed and executed via URL or scheduled in Viya.

Typically consists of two parts, a Form and a SAS Code

- HTML/XML form
 - Collects input from the user and triggers the SAS Code
- SAS Code
 - Does what ever the Job is designed to do...
 - Any Output from the SAS code is handled automatic via the ODS system

Viya Jobs are accessed using a URL link to the Job object:

https://your_server_name/SASJobExecution/?_program=/Folder/AnoterFolder/Job Name

Viya Job



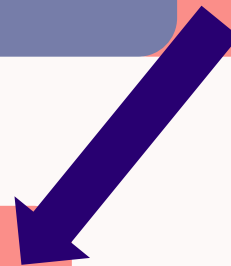
Combining Data Driven objects with Viya Jobs

Since the Data Driven Object is a HTML file and the Viya Job partially consists of a HTML file we can let the HTML code for our DDC be the HTML code that acts as a Form for the Viya Job

Data Driven Object



Viya Job



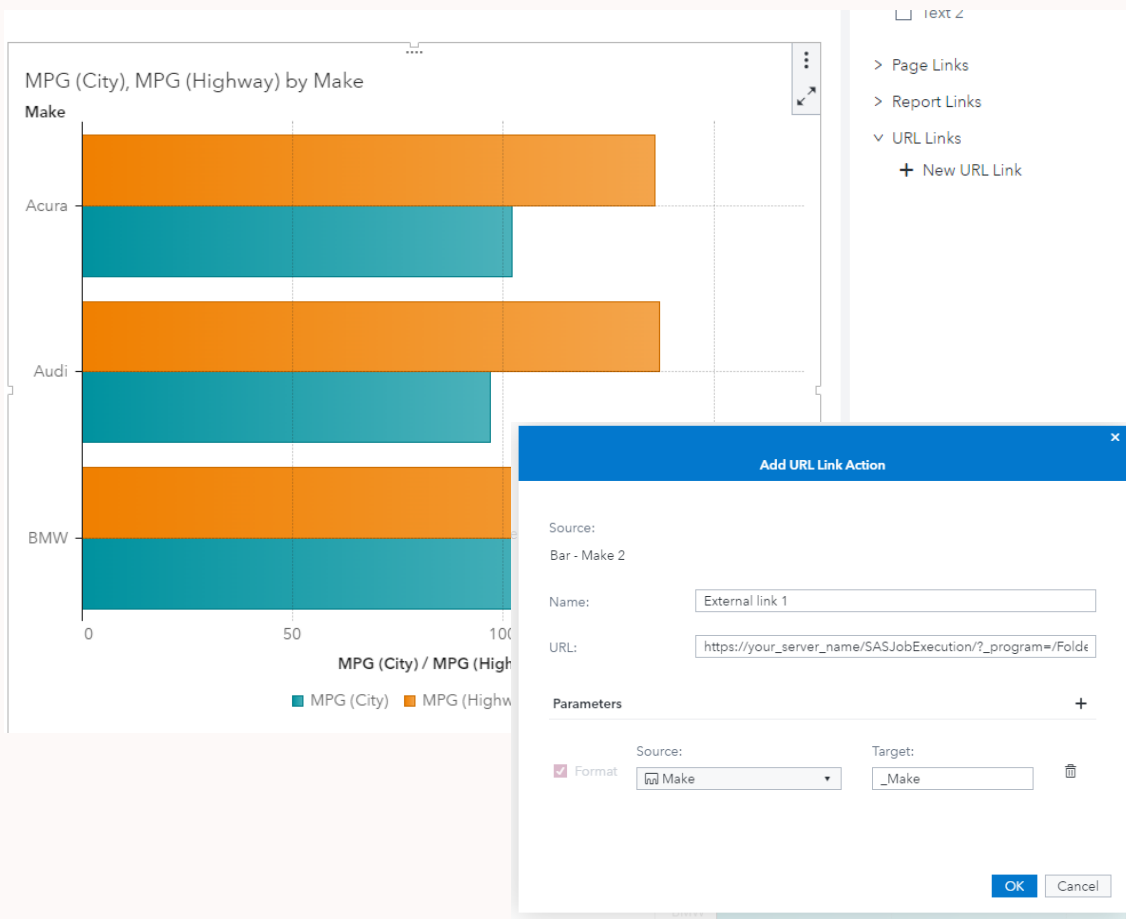
Connecting Visual Analytics with Viya Jobs

Many of the objects in Visual Analytics is capable of triggering Viya jobs since most of them have the URL action available.

Dubbel clicking an image, table or graph can trigger the URL that correspond with a Viya job or we can embed the HTML form of a Viya Job directly in VA using the web content object.

The main draw back of these approaches is the limited, and in some cases lack of, options to send filter values, parameters and data from the VA report objects to the Viya Job.

Using DDC we can solve this key problem



Connecting Visual Analytics with Viya Jobs using DDC

Using DDC and some clever JavaScript code developed by SAS we can connect our Visual Analytics report with Viya Jobs and effectively trigger any SAS code using VA and patch along both data and all kinds of filters and parameter values even if they are in other tabs of the report.

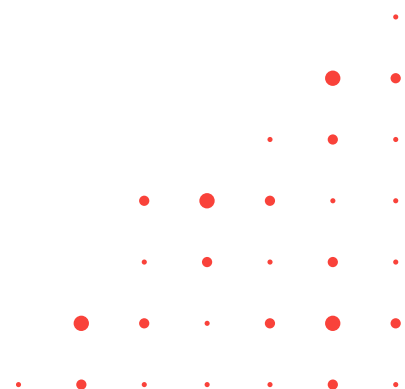
What happens when the Viya Job is executed is up to your imagination (and SAS code capabilities) but some examples could be

- Background execution such as updating and modifying tables
- Create output with SAS code that VA can't produce
- Create files to download (Excel, csv, PDF etc.)

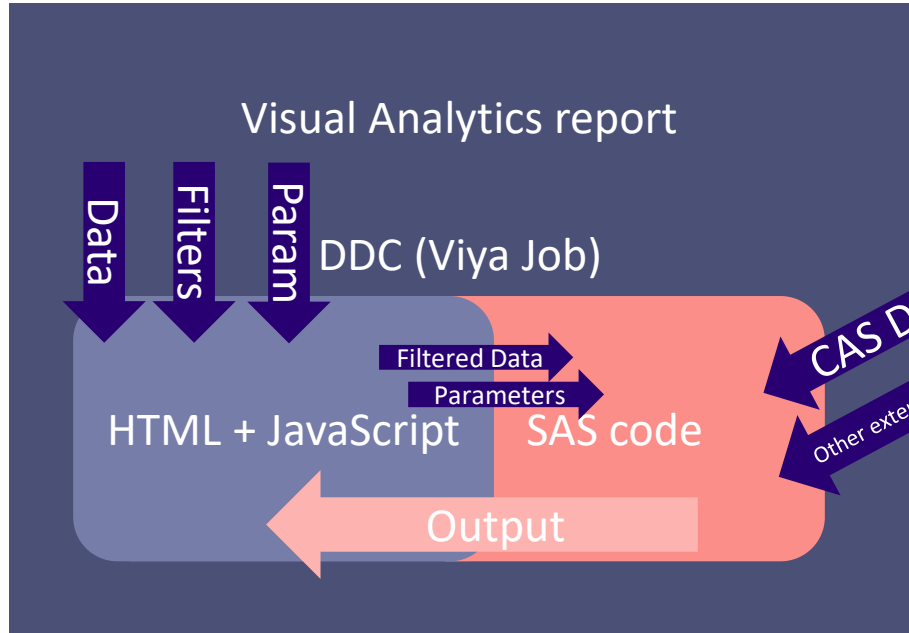
HTML and JavaScript code for the DDC object

See the different code examples in this blog series depending on your specific needs:

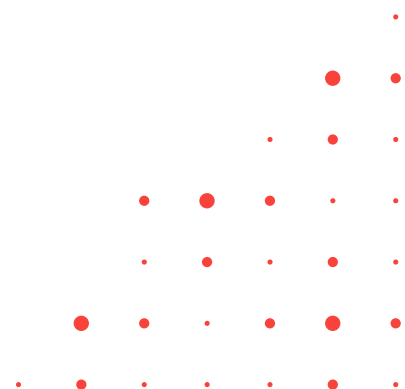
[Introduction to Integration of SAS Visual Analytics with SAS Jobs via ... - SAS Support Communities](#)



Overview of how it works



Note:
Since the DDC object in VA is a "ordinary" VA object we can offcourdce utalise standard VA functionality such as applying filters on the data on a "object level"



Links

- **Step-by-step guide encompassing everything seen in this presentation!**
<https://communities.sas.com/t5/SAS-Communities-Library/Introduction-to-Integration-of-SAS-Visual-Analytics-with-SAS/ta-p/670823>
- Past SAS FANS event with presentation of Folkhälsokollen that uses a lot of DDC as well as Carl-Olow *Magnussons* DDC presentation: <https://communities.sas.com/t5/Nordic-Events-and-Presentations/FANS-Network-Meeting-SAS-Visual-Analytics-Nordic-Virtual-4-May/ba-p/785711>
- Using DDC in VA: <https://communities.sas.com/t5/SAS-Communities-Library/Data-Driven-Content-leveraging-third-party-visualizations-in-SAS/ta-p/437303>
- DDC coding guide: <https://sassoftware.github.io/sas-visualanalytics-thirdpartyvisualizations/>
- DDC samples: <https://github.com/sassoftware/sas-visualanalytics-thirdpartyvisualizations/blob/master/samples/README.md>
- DDC required files: <https://github.com/sassoftware/sas-visualanalytics-thirdpartyvisualizations/tree/master/util>