



# SAS #VATableEditor

*Why, What's, Where ...*

**João d'Oliveira**

Principal Business Manager,  
SAS SWEE Leader for DataOps & Decisioning



[Joao.Oliveira@sas.com](mailto:Joao.Oliveira@sas.com)



[@jdoiveira](#)



[@Jde\\_Oliveira](#)



# #VATableEditor

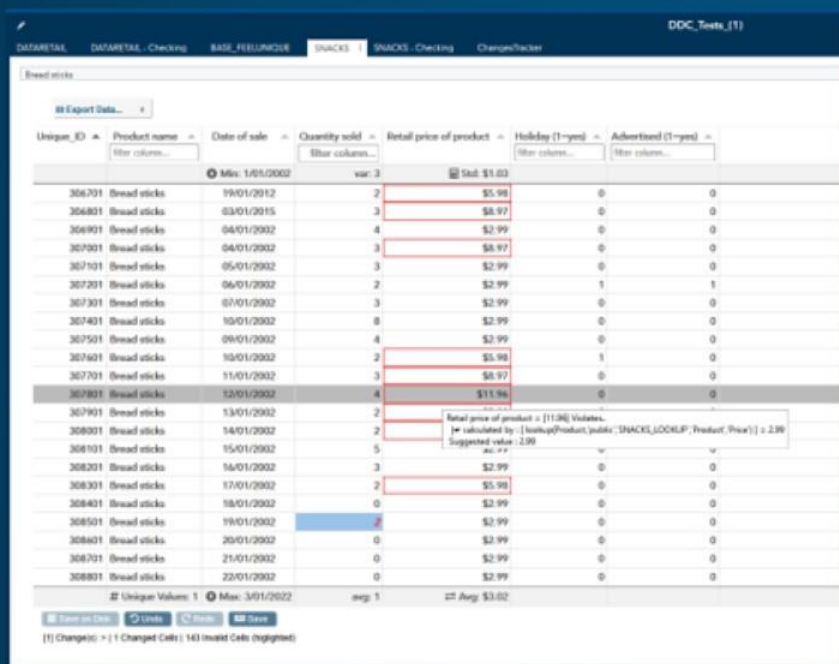
Securely Editing Data in SAS Visual Analytics

- Why..

- Need to edit table content without changing User Interface

- What..

- VA Plug-in that allows to edit data in a report saving changes directly on the table.
  - Adding, Deleting Rows.
  - Changing values in cells and/or entire column (respecting existing filtering)
- Ability to apply Data Quality rules
- Table validation and DQ violation report (and correction)
- Complete changes traceability
- Integrate with other Viya and/or 3<sup>rd</sup> party Web-Services with the ability to interact with VA as “afterExecution” tasks



Unique_ID	Product name	Date of sale	Quantity sold	Retail price of product	Holiday (1=yes)	Advertised (1=yes)
306701	Bread sticks	19/01/2012	2	\$5.98	0	0
306801	Bread sticks	03/01/2015	3	\$8.97	0	0
306901	Bread sticks	04/01/2002	4	\$2.99	0	0
307001	Bread sticks	04/01/2002	3	\$8.97	0	0
307101	Bread sticks	05/01/2002	3	\$2.99	0	0
307201	Bread sticks	06/01/2002	2	\$2.99	1	1
307301	Bread sticks	07/01/2002	3	\$2.99	0	0
307401	Bread sticks	10/01/2002	8	\$2.99	0	0
307501	Bread sticks	09/01/2002	4	\$2.99	0	0
307601	Bread sticks	10/01/2002	2	\$5.98	1	0
307701	Bread sticks	11/01/2002	3	\$8.97	0	0
307801	Bread sticks	12/01/2002	4	\$11.96	0	0
307901	Bread sticks	13/01/2002	2	\$2.99	0	0
308001	Bread sticks	14/01/2002	2	\$2.99	0	0
308101	Bread sticks	15/01/2002	5	\$2.99	0	0
308201	Bread sticks	16/01/2002	3	\$2.99	0	0
308301	Bread sticks	17/01/2002	2	\$5.98	0	0
308401	Bread sticks	18/01/2002	0	\$2.99	0	0
308501	Bread sticks	19/01/2002	2	\$2.99	0	0
308601	Bread sticks	20/01/2002	0	\$2.99	0	0
308701	Bread sticks	21/01/2002	0	\$2.99	0	0
308801	Bread sticks	22/01/2002	0	\$2.99	0	0

- Recurrent need to edit data directly on a Visual Analytics (VA) report.
  - No-Code / Low-Code
  - Controlled
  - Validated
  - Securely
  - Traceable
  - Auditable
  - Integrated
  - Integration points with 3<sup>rd</sup> party
  - Fully Documented

# SAS VTableEditor

## What – Functionalities (1)

- **Quick Installation and Report Creation** – Installation in less than 1h, incorporating in a Report in few minutes
- **Modular** – Ability to Activate / Deactivate functionalities
- **Integrated** – Fully integrated with SAS Viya.
  - Ability to call SAS Viya Services and / or External 3<sup>rd</sup> party webservice.
  - Table Metadata, Security, VA filters, Multi-User (concurrent usage)
- **No limits on # Rows nor on # Columns** – only the ones imposed by VA Setup
- **Cell (all data types) edition:**
  - Direct change, get value from another cell, from a lookup table, select from a LoV (user defined, column content, supplied from another table), calculated by a formula (which can use other cell values)
  - Update entire column (respecting filters) – Applying, either a cell value or cell formula
- **Rows** – Add (defaulted or by copying an existing) and/or Delete



# SAS VTableEditor

## What – Functionalities (2)

- **Column Header Filtering** – Synchronised with the LoV, User provided. Ability to use formulas/expressions and filtering functions (e.g: =, >, ... like,.. in, btw, .. similar..)
- **Column Aggregations** – Ability to define one for top and other for bottom
- **Column Freezing** – Either at the Left and/or Right of the Table view
- **Table Initial Sort** – Ability to define initial sort using one or more columns
- **Table Pagination** – Ability to define page size
- **Change History** – Undo, Redo (LIFO mode). Applies to cell changes, row adding and/or deleting. Column mass update has its own Rollback
- **Table Content Validation** – Intrinsic column type validation, VA variable definitions, configurable rules. Intra and X-Table validation. Invalid cells log (with printing possibility) and violations exposed on cell tooltip, a suggested value is presented.
- **Table Content Export** – CSV, PDF, JSON, EXCEL, HTML, Printer
- **Clipboard Interaction** – Copy to (modify, add rows) ⇔ Paste From

# SAS VTableEditor

## What – Functionalities (3)

- **Informative Tooltips** – Violations, Cell value, Column formula, Aggregation
- **Context Menu Actions** – Calling SAS Viya Services and/or 3<sup>rd</sup> party webservices,
- **Saving Changes** – Three modes: combined saving in memory and persisting, save in memory asking if to persist, and save in memory then persisting in a separated action
  - Ability to call SAS Viya Services and/or 3<sup>rd</sup> party webservices
- **Reasoning for Changes** – Tweet like comment captured upon saving..
- **Multi-User / Concurrent Users** – Validation at saving moment other users changes impact
- **Recovering Unsaved Changes and Header Filters** – If abrupt exit, closing report, ...
- **App log Export / saving** – All operations are logged, can be accessible and are saved on the file system upon App exit
- **Fully Auditable** – All changes are registered at the more granular level



# SAS #VATableEditor

Demonstration



- Glossary / Parameter Tables
- Production Schedule Metadata
- Production Quality Data
- Datawarehouse master tables updates
- Model Variables / Features tuning and simulation
- Data Quality Management – DQ Resolution / Mitigation
- Data Adjustments / Review and annotation
- (...)
- *Add your own here 😊*

# SAS #VATableEditor

*A safe and auditable way to edit data within SAS Visual Analytics ...*

*Thank you all for your Attention 😊*

**João d'Oliveira**

Principal Business Manager,  
SAS SWEE Leader for DataOps & Decisioning



[Joao.Oliveira@sas.com](mailto:Joao.Oliveira@sas.com)



[@jdoliveira](https://www.linkedin.com/in/jdoliveira)



[@Jde\\_Oliveira](https://twitter.com/Jde_Oliveira)