



SAS Graph Builder

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SAS Graph Builder

Build Custom Graphs for VA

- There are three ways to make custom graph objects in VA
 1. Datadriven content
 - The most flexible
 - Highest complexity, requires javascript knowledge
 - The object has to be coded in Javascript and has to implement a given set of functions (API)
 - The javascript-code has to be located on a webserver
 - Can be built on top of existing 3rd party javascript visualisation libraries, for instance D3.js
 2. Custom Build Graphs
 - Ease of use. Everything is done by point and click in a GUI
 - Less flexible than Datadriven content
 - We are going to look closer at this today
 3. Object templates
 - Save and re-use standard graph objects with given roles and/or options
 - The least flexible options

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- Create user-defined graph objects which can be used in VA
 - Layered graphs (a bar chart with a band chart overlay)
 - Lattice graphs – either fixed or data-driven lattice
 - Define roles and shared roles
 - Etc.

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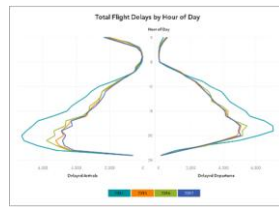
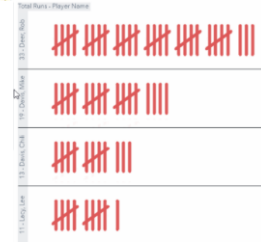
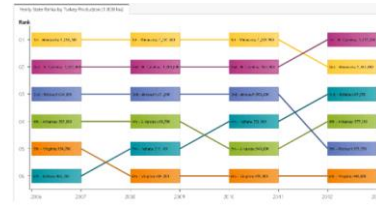
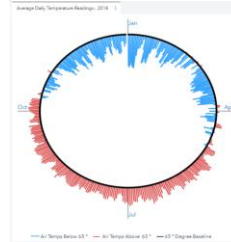
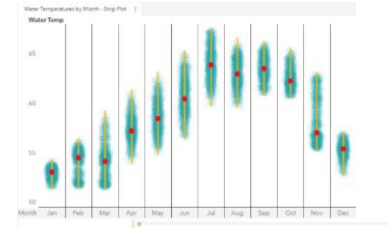
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- Save the graph-template in a shared folder if it should be available for other report developers
- The graph template can be exported/imported between environments
- You can start from a selection of start templates or from scratch

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- Some examples of graph templates made with SAS Graph Builder
 - Calendar heatmap matrix
 - Strip plot
 - Circle graph
 - Tally sheet
 - Butterfly line chart



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- We have some simple weather data like this:

⊕ EPISODE_ID	⊕ Quarter	⊕ Year	△ Event_Type	⊕ totalEvents
85562	2	2014	Hail	1
85562	2	2014	Heavy Rain	1
85562	2	2014	Thunderstorm Wind	1
85563	2	2014	Flood	1
85564	2	2014	Flood	1
85564	2	2014	Hail	1
85565	2	2014	Thunderstorm Wind	1

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- We want to show number of events by year and quarters
- We would like to be able to compare the different years with each other as well as the different quarters within a year with each other in the same graph at the same time.
- We would like to see what proportion of a year a quarter makes

- A grouped barchart won't do – too hard to compare years
- A stacked barchart won't do – too hard to compare quarters
- A barchart with a hierarchy for category won't do – not both at the same time
- A latticed barchart won't do – not both at the same time

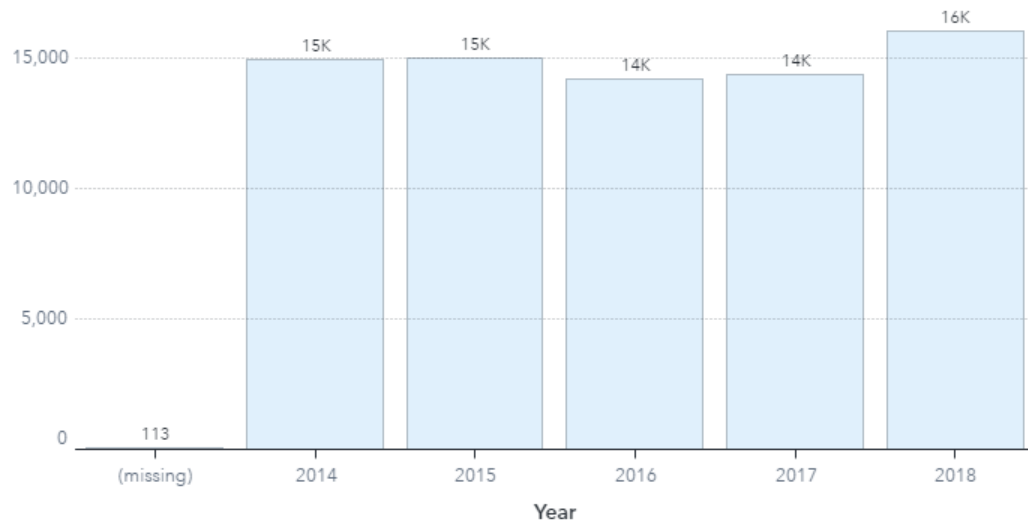
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- But a nested barchart with two levels will do:

Total Events by Year

Total Events



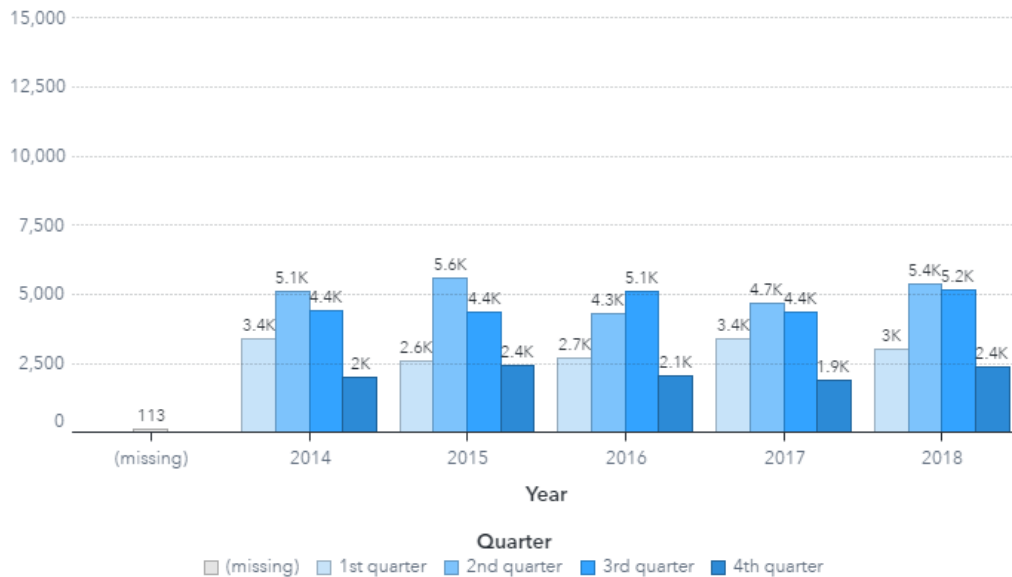
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- But a nested barchart with two levels will do:

Total Events by Year grouped by Quarter

Total Events



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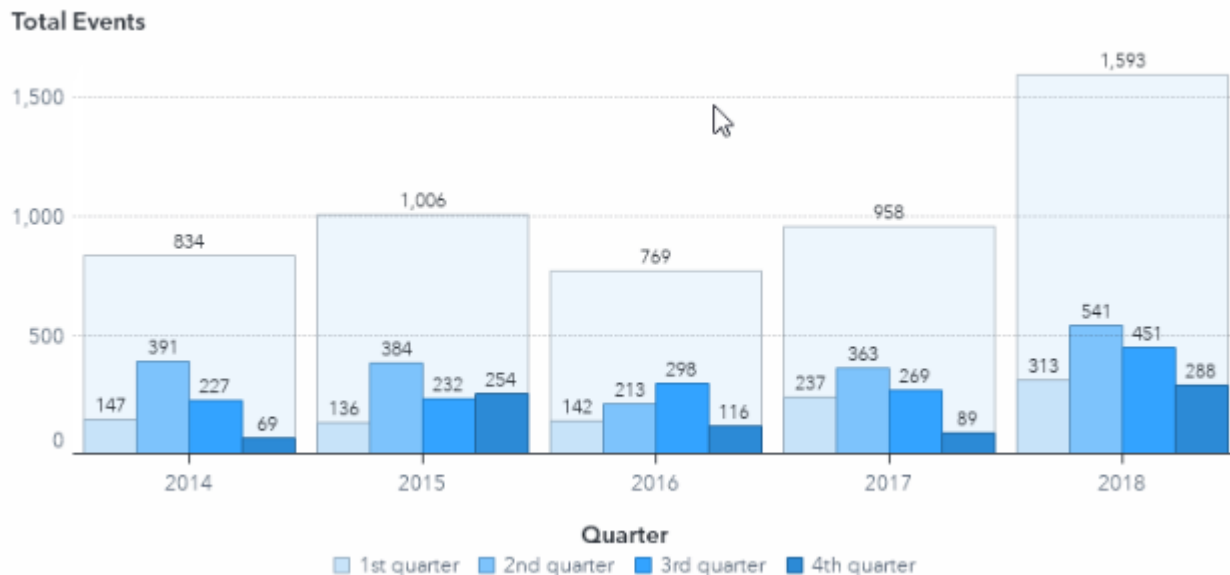
- But a nested barchart with two levels will do:



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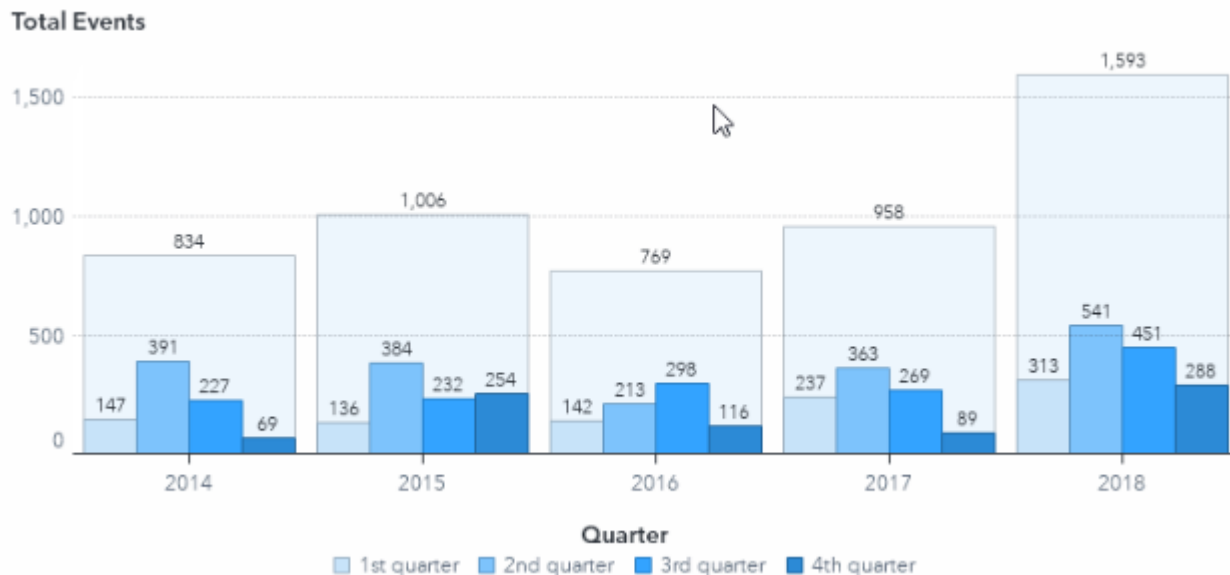
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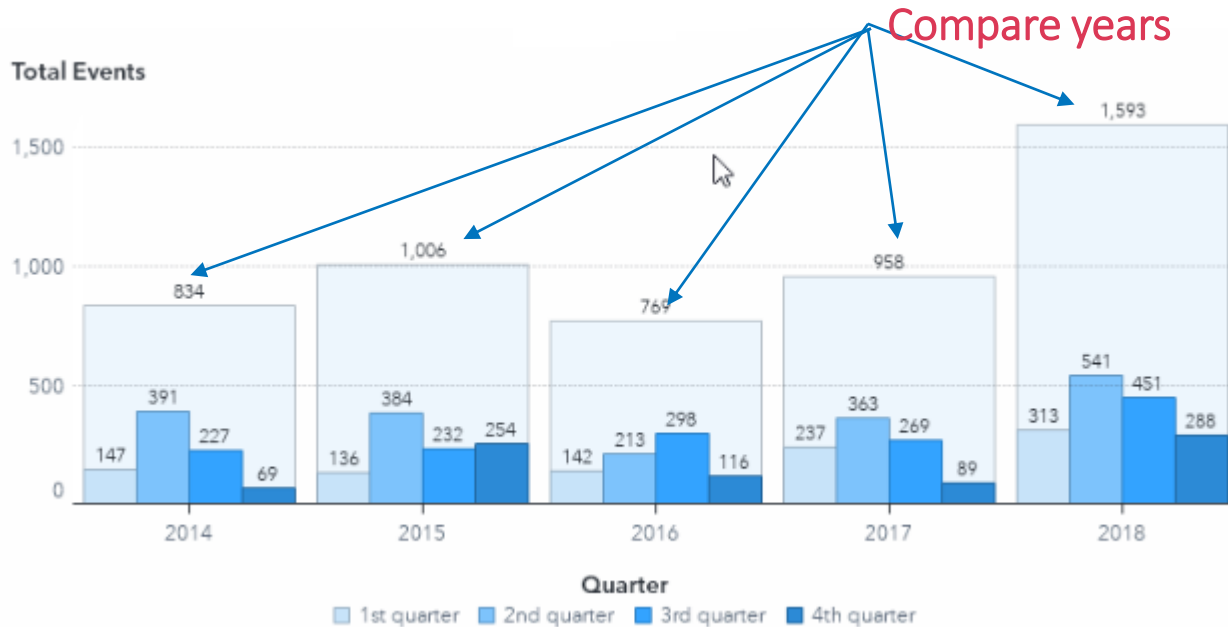
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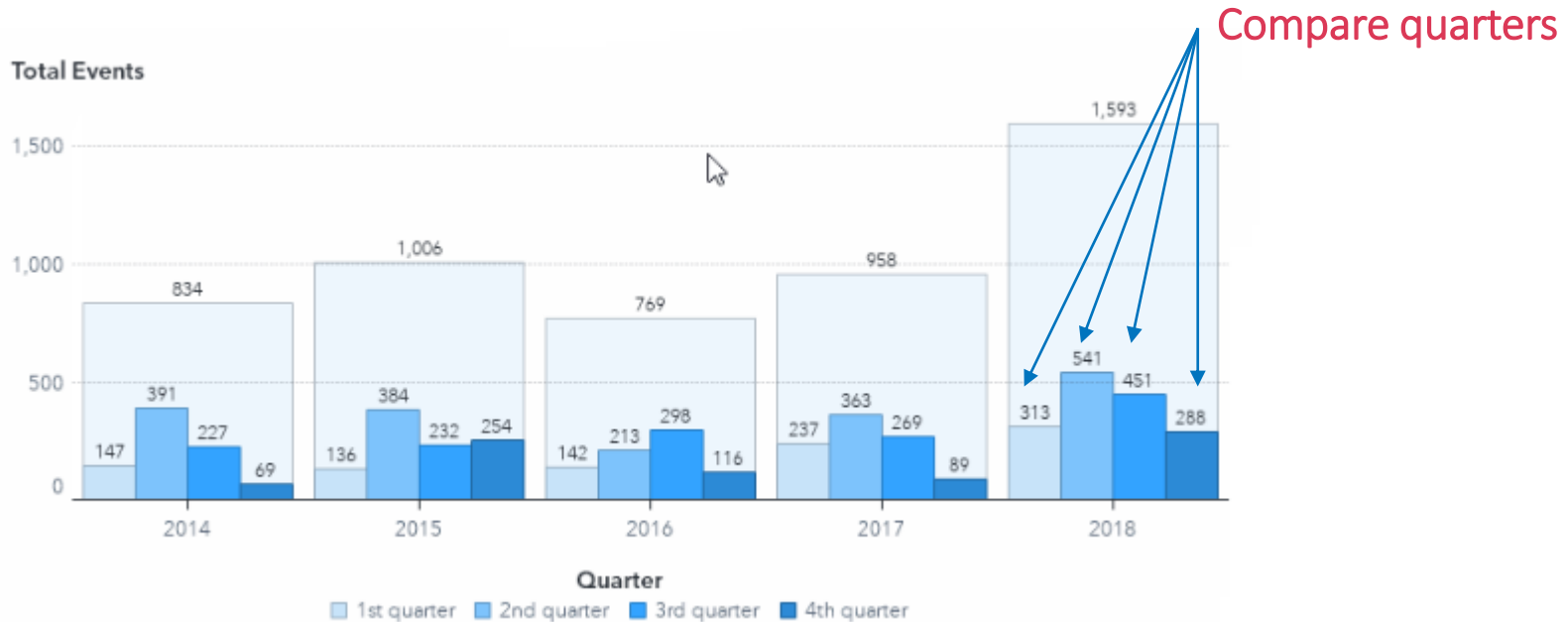
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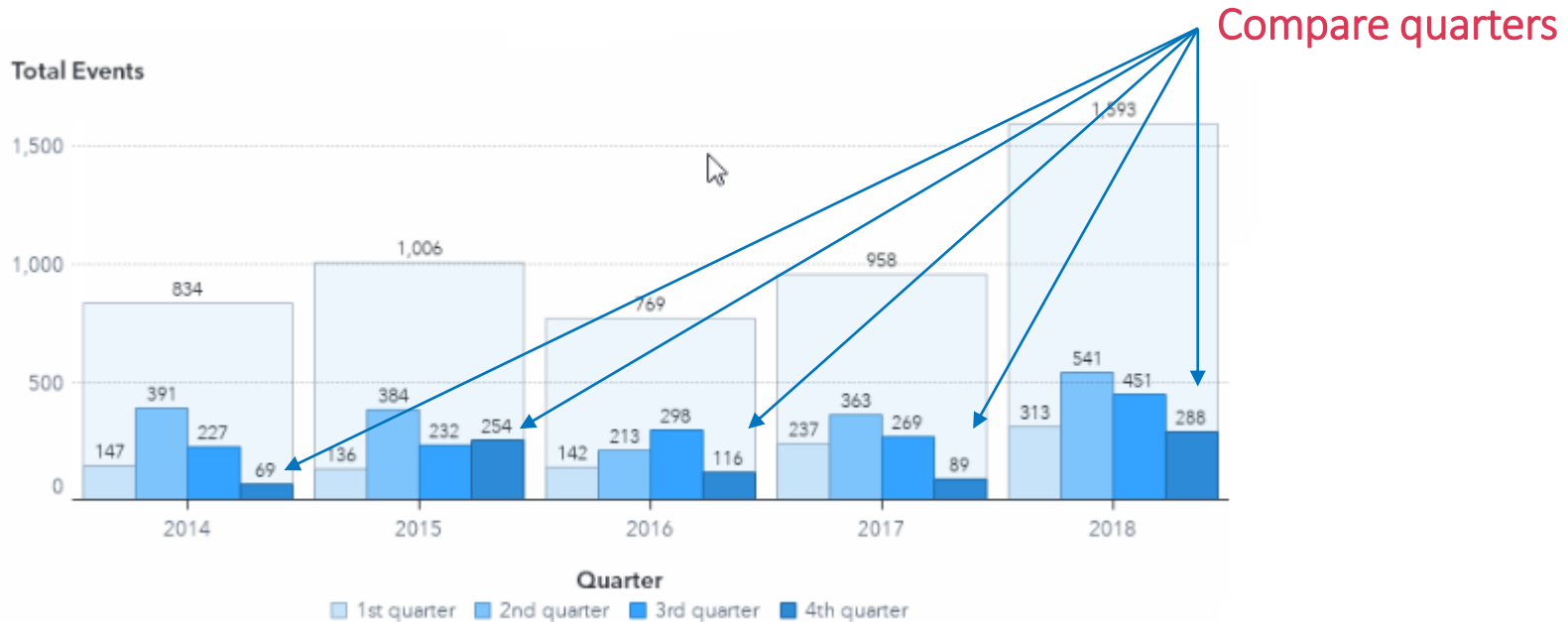
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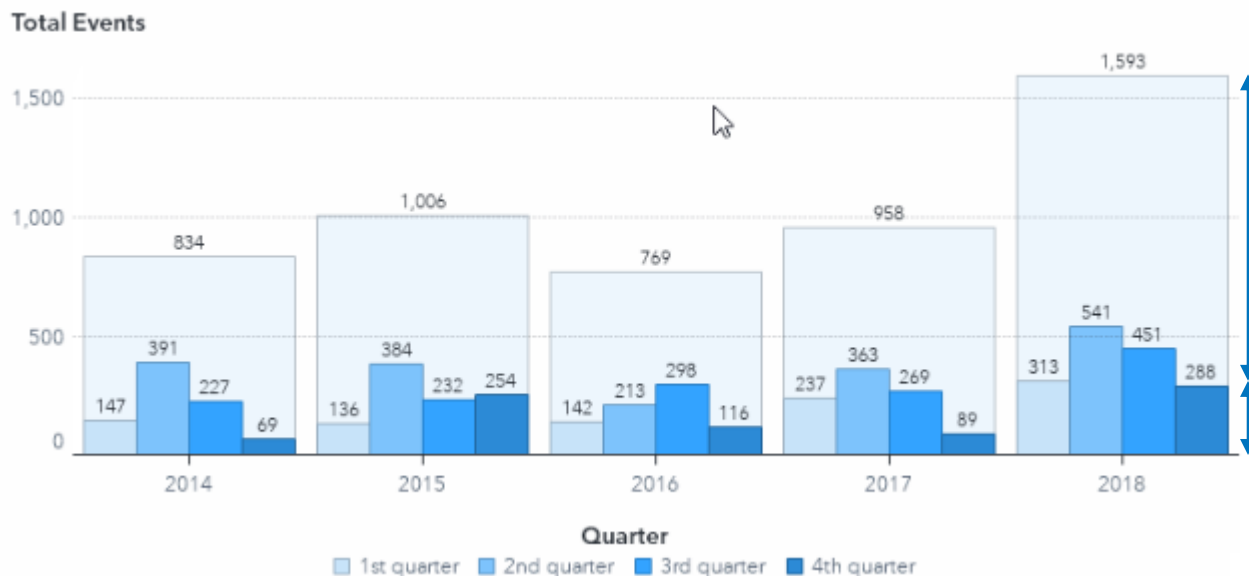
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- But a nested barchart with two levels will do:



Proportion between
year and quarter



Demo

SAS Graph Builder GUI

Resources

- SAS Graph Builder – User Guide:
<https://go.documentation.sas.com/doc/en/vacdc/8.5/grbldrug/titlepage.htm>
- VA Custom Graphs examples on GitHub:
<https://github.com/sassoftware/va-custom-graphs>



Noen spørsmål?

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