VISUAL

DATA JOCKEY

Tableau Charts and Tips

Volume 1

Edition 31

Foreword

This is a collection of some great Tableau charts and tips from blogs and articles written by some of the best Tableau guru's out there. Some of the authors are Zen Masters, and others are regular human beings…but their contributions have been just as powerful in my use of Tableau and I thought that you may also benefit.

Volume 1 has non-standard charts that can be easily created and some easy-to-apply tips that I use on a regular basis.

A massive thank you to all of the contributors - for the articles included, but also for all of the other great work that they make freely available. I include their own brief introductions and images and links to the original articles.

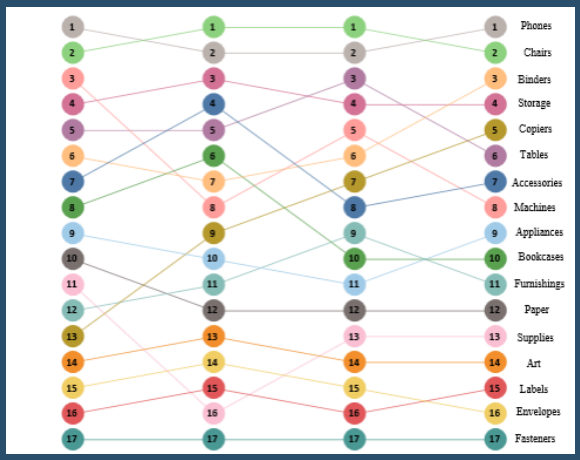
I hope you enjoy!

Steve Adams

Tableau Coach & Trainer

SteveA@VizDJ.com

1) Rank Charts
By *Rahul Singh*



In this article we will see how to construct a rank/bump chart in Tableau. A rank chart is an effective way to see how the rank of our dimensions varied across year.

Lets suppose we rank each of the sub category in our Super store data and would like to see if the ranking of these sub categories by sales changed over time or remained constant. A rank chart comes to our rescue for this.

Lets go ahead and create a Rank chart that helps us to show how the rank of the Sub Categories has changed across year.

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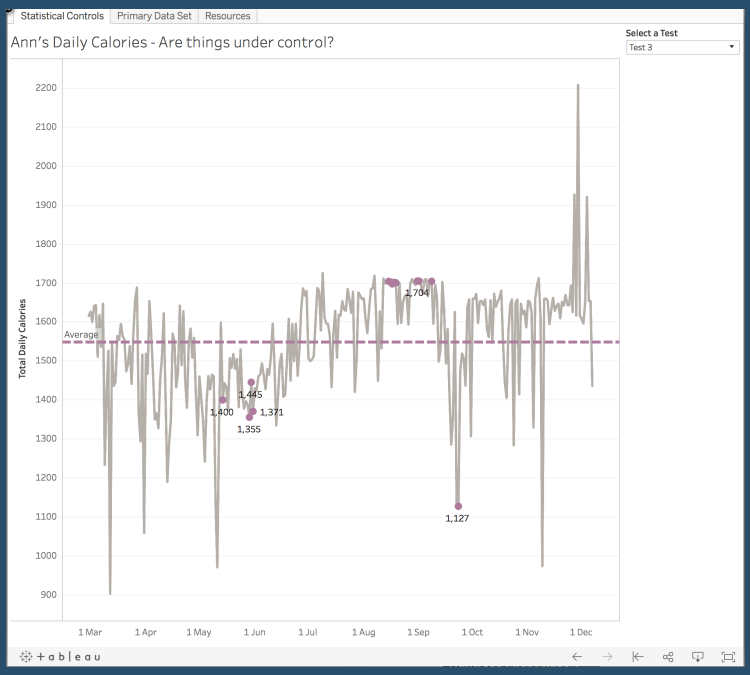
2) Statistical Process Control Charts
By *Ann Jackson*

I've had this idea for a while now – create a blog post and video tutorial discussing what Statistical Process Control is and how to use different Control Chart "tests" in Tableau.

I've spent a significant portion of my professional career in business process improvement and always like it when I can integrate techniques learned from a discipline derived from industrial engineering and apply it in a broader sense.

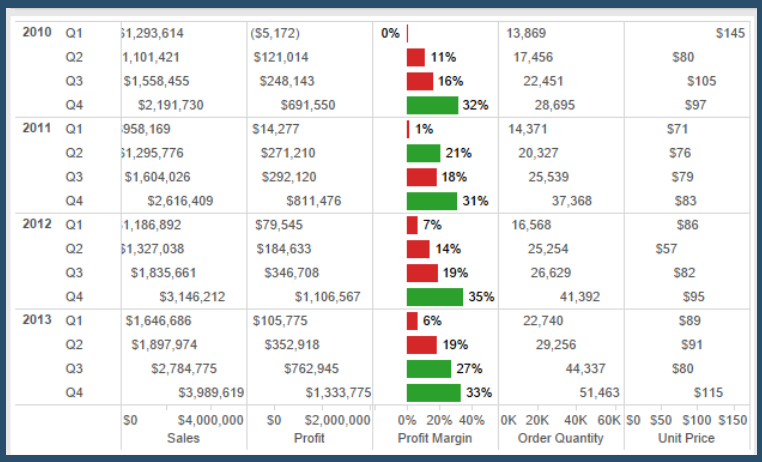
It also gives me a great chance to brush up on my knowledge and learn how to order my thoughts for presenting to a wide audience. And let's not forget: an opportunity to showcase data visualization and Tableau as the delivery mechanism of these insights to my end users.



So why Statistical Process Control? Well it's a great way to use the data you have and apply different tests to start early detection.

Go To Blog

3) My Favorite Tableau Trick For Work: MIN(1)
By *Dan Montgomery*



Many of us found +Tableau Software from the work that we do in our day jobs, and have since taken our passions to our free time. When given the ability to build visualizations we're passionate about, people come up with creative solutions like Anya A'Hearn's Stairs Of The City, KK Molugu's Playoff Quarterback Touchdowns, Russell Spangler's Bacon Viz (and WAY too many more to mention).

HOWEVER… In our day jobs, there is much less room to be creative and more of a need to be direct. As a result, designs usually involve displaying more numbers than visualizations. And while there are best practices by Nelson Davis about when to use numbers and when to use visuals, numbers end up more often than us 'creative types' would prefer.

FEAR NOT… You can still let loose your creative side even when displaying numbers.

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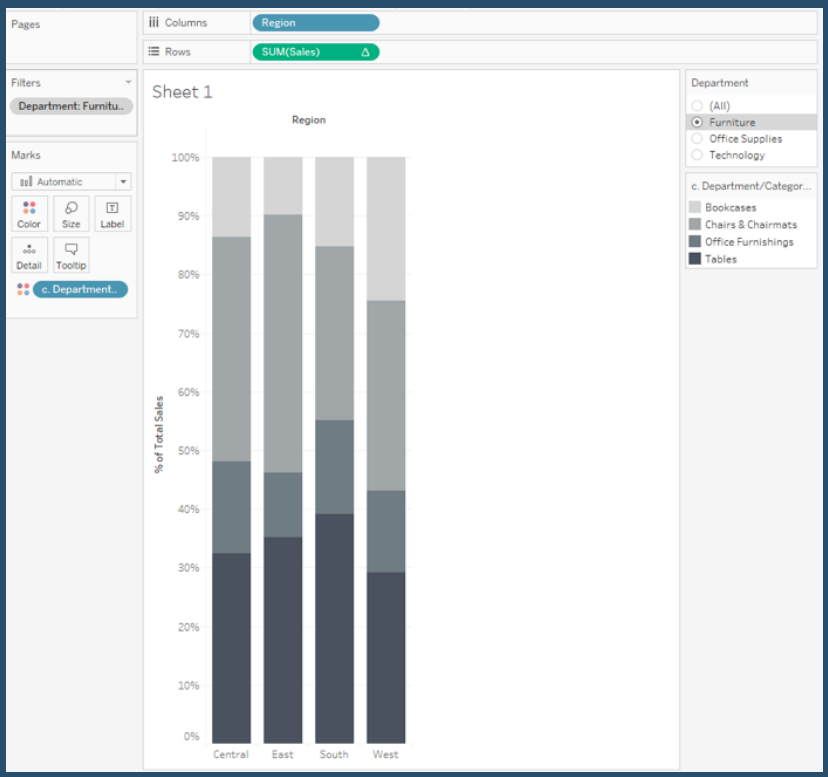
4) Drilling through data based upon filter selection
By Rick Thomas

During a recent project, I received an interesting question: "Can we swap what dimension is displayed in a stacked bar chart based on a filter being applied?" I've decided it would be easier for me to answer this question by showing you how to do it with the Superstore data. Below, we have a stacked bar chart displaying percent of total sales by departments within regions:



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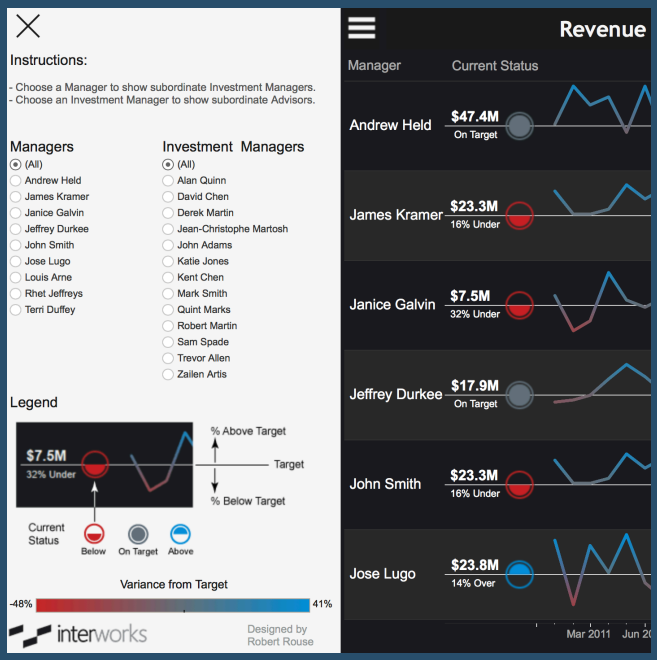
5) Creating a Collapsing Menu Container
By Robert Rouse



Some of my favorite mobile apps like Slack, Feedly and Google Maps have a slide-out menu that appears when I tap a small icon. That common design element makes plenty of room for user inputs and gets them out of the way when you're done – perfect for small screens. Available space for Tableau dashboards can be limited on mobile devices and blogs, so wouldn't it be nice to have a collapsible area for all those quick filters, legends, explainers or links? This post will walk through how to show and hide a dashboard menu area without writing any code.

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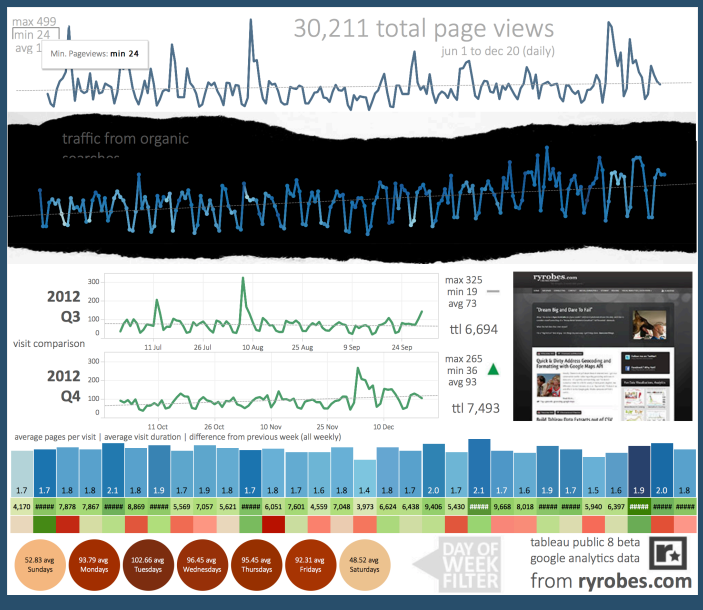
6) Click Button Filters
By Nelson Davies

This is one of my all time favs, though I think I hadn't really used it until after going to TCC13 and seeing Ryan Robitaille's presentation on "The Art and Science of the Zen Masters". Probably the one session that has most impacted me in the seven months since then (that means TCC14 is only five months away!!!). One of the most useful takeaways from that talk was creating clickable buttons to use as filters on a dashboard. I've now implemented it many times and it's an excellent trick to have in the tool belt.

I mentioned Ryan's talk - I want to show two pictures from his awesome blog where he digs into visual design in Tableau and how he puts everything together. The reason we dig into this was because the clickable button was a prominent feature of the dashboard:



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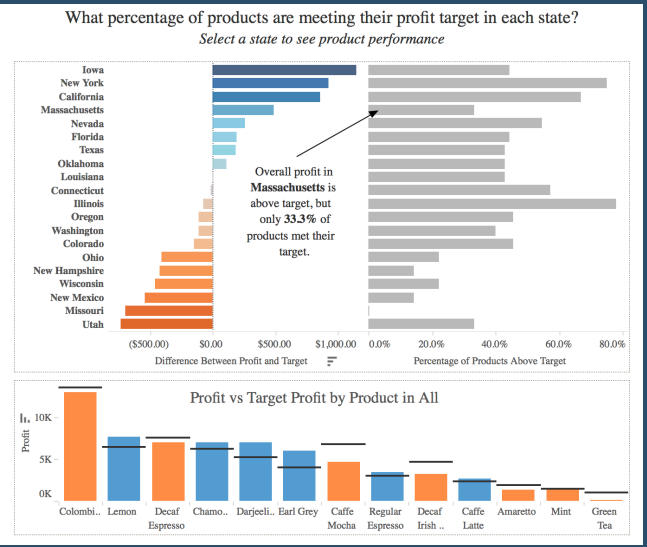
7) Top 15 LOD Expressions By Bethany Lyons



LOD Expressions provide a way to easily compute aggregations that are not at the level of detail of the visualization. You can then integrate those values within visualizations in arbitrary ways. That may sound abstruse, so this post will illustrate the concept through a series of common questions. Near the end, we will dive into some more advanced analytic examples. The whitepaper on Level of Detail Expressions provides a more general overview. For details on syntax and usage, see Level of Detail Expressions in the Tableau Desktop online help section.

Each of the following 15 workbooks contains customized data sources and can be downloaded for further details.

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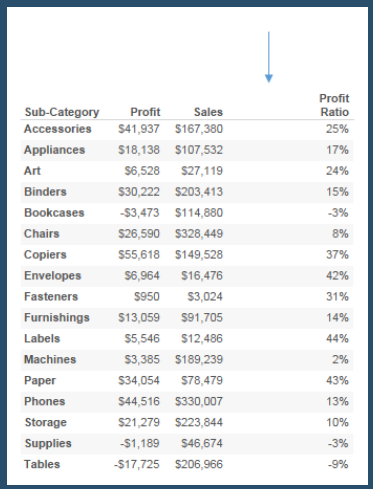
8) Create a Gap in Tabular Reports By Joshua Milligan

Sub-Category		2011	2012	2013	2014
Accessories	Profit	$6,403	$10,197	$9,664	$15,672
	Sales	$25,014	$40,524	$41,896	$59,946
Appliances	Profit	$2,459	$2,512	$5,301	$7,865
	Sales	$15,314	$23,241	$26,050	$42,927
Art	Profit	$1,407	$1,485	$1,409	$2,227



Sub-Category	Profit	Sales	Profit Ratio
Accessories	$41,937	$167,380	25%
Appliances	$18,138	$107,532	17%
Art	$6,528	$27,119	24%
Binders	$30,222	$203,413	15%
Bookcases	-$3,473	$114,880	-3%
Chairs	$26,590	$328,449	8%
Copiers	$55,618	$149,528	37%
Envelopes	$6,964	$16,476	42%
Fasteners	$950	$3,024	31%
Furnishings	$13,059	$91,705	14%
Labels	$5,546	$12,486	44%
Machines	$3,385	$189,239	2%
Paper	$34,054	$78,479	43%
Phones	$44,516	$330,007	13%
Storage	$21,279	$223,844	10%
Supplies	-$1,189	$46,674	-3%
Tables	-$17,725	$206,966	-9%

Ever design a table in Tableau and wish you could insert a gap between columns or rows? Maybe you want to show several values, but set one apart from the others.

Or maybe you want to create some space between categories.

Whatever the reason, in some cases, it's actually quite easy. Assuming that you are using Measure Names / Measure Values to define the rows or columns, all you need is a Measure that gives you the "gap".
You might think to use a blank string (e.g. ""), but even as a measure (e.g. MIN("")), that can't be added to the Measure Values shelf which only takes numeric values.
You might use NULL, but by itself you can't add that to Measure Values either. The trick, is to cast NULL as a numeric value.

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9) Easy empty local extracts
By Ryan Stryker

Extracts are not a hard sell; the performance gains we see through the local materialization of data views are usually staggering. And Tableau Server gives us a handy platform for automagically refreshing it all.

For large extracts, though, it can be quite time-consuming to create a desktop version before publishing to the server. Understandably, customers often ask if there's a way to "just have Server do it."

Of course there is.

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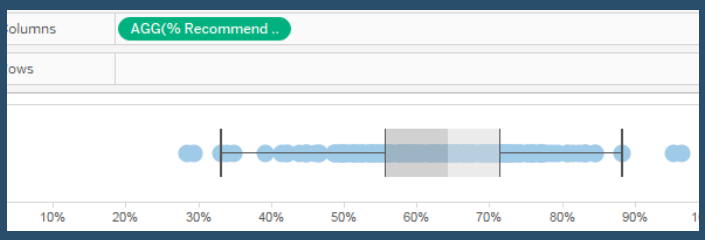
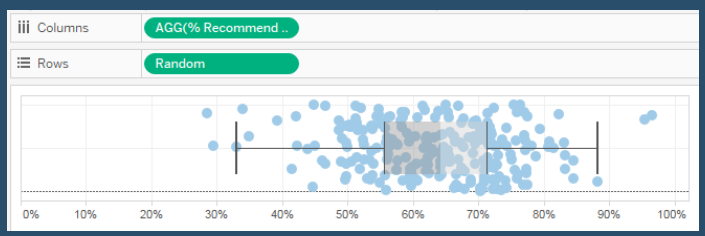
10) Jitter plot
By Simon Beaumont





A Jitter plot is similar to a box plot however it displays the data points across a random y axis; allowing you to easily distinguish multiple points in a way that would be impossible if they were plotted on a single line.

To create a jitter plot is surprisingly simple. First create a standard box plot by placing your measure on Columns and your dimension in the details marks card. Next create a new calculated field random() and place this calculated field on Rows; it doesn't matter what aggregation you select but for simplicity I have placed it as a Continuous Dimension.

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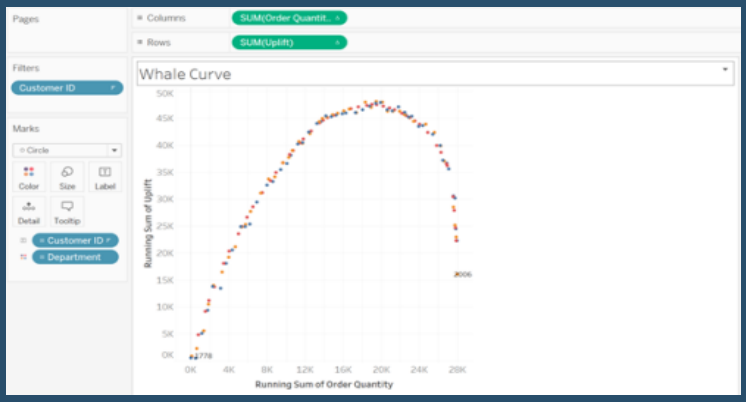
11) Whale Curve / Pareto Charts
By Samuel Ehrlich



The whale curve provides an excellent look at your most valuable customers from the point of profitability and size of production. It also give you the ability to view your low profitability customers. It has been used extensively in the fields of supply chain management and customer retail.

Where I have seen it most used is the in the oil and gas industry. Many of the largest downstream producers of oil products leverage the whale curve to understand which parts of their customer base have the highest "uplift" or profitability. Note, Uplift is calculated as the profitability of each customer (Revenue – Cost to sell). Further it would allow us put our customers on a uniform scale in order better represent which ones have the most overall profitability compared to volume of product sold.

In this iteration of things Tableau, we will share how to build a whale curve so you can better understand your business.

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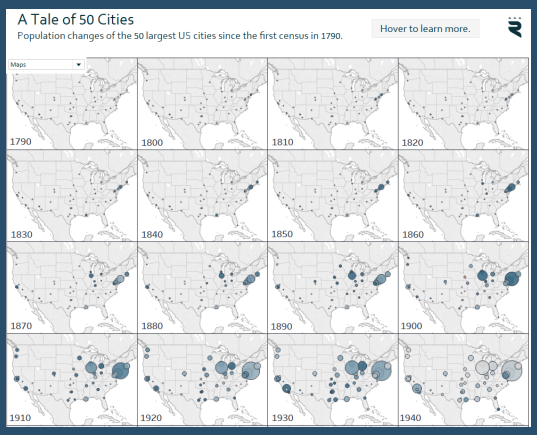
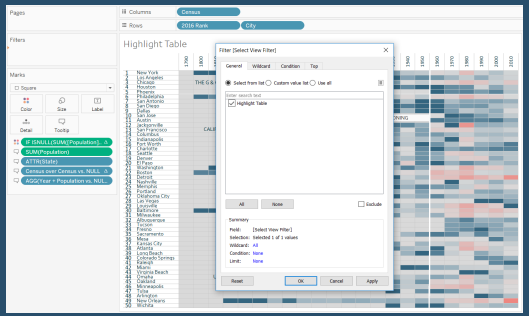
12) How to Let Users Choose Between Chart Types
By Ryan Sleeper





When I was a kid, I enjoyed reading through Choose Your Own Adventure books. In the books, after every few pages, the reader is presented with choices on how they want to proceed. Each choice will point you to a different page number where a story unfolds based on your selection. I assume most kids reading the books were like me and would cheat by going back and forth to experience all of the different outcomes.

Data visualization can be similar in that looking at the same data in different ways often leads to new insights (or storylines, if you will). Further, some end users will have their own preferences for how they want to look at data. Has anyone ever had to convert a data visualization to a crosstab view?

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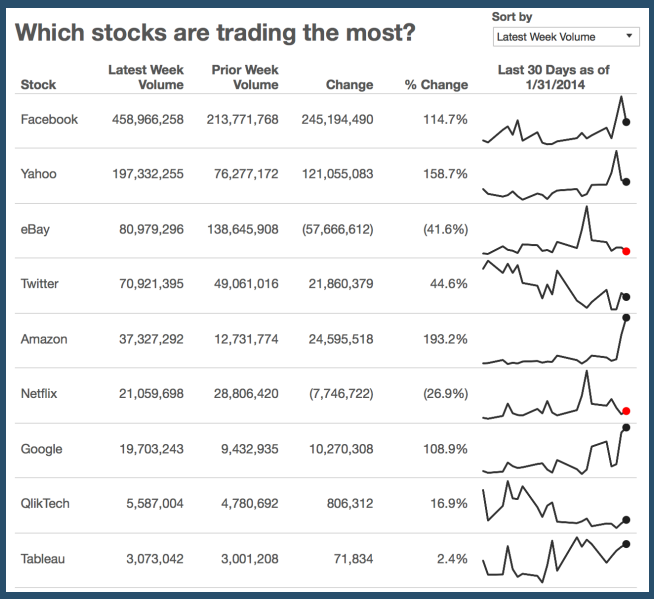
13) KPIs and Sparklines in the same Worksheet By Andy Kriebel

Today, I'm writing about combining KPIs and sparklines in a single view. It's very common for business users to want to see KPIs and trends in the same view. These give them a sense for the overall direction of their product and also highlight the most meaningful numbers to them. I often see people create these as separate worksheets in Tableau, but with this post, I'm going to show you how to combine them into a single view.



Stock	Latest Week Volume	Prior Week Volume	Change	% Change	Last 30 Days as of 1/31/2014
Facebook	458,966,258	213,771,768	245,194,490	114.7%	
Yahoo	197,332,255	76,277,172	121,055,083	158.7%	
eBay	80,979,296	138,645,908	(57,666,612)	(41.6%)	
Twitter	70,921,395	49,061,016	21,860,379	44.6%	
Amazon	37,327,292	12,731,774	24,595,518	193.2%	
Netflix	21,059,698	28,806,420	(7,746,722)	(26.9%)	
Google	19,703,243	9,432,935	10,270,308	108.9%	
QlikTech	5,587,004	4,780,692	806,312	16.9%	
Tableau	3,073,042	3,001,208	71,834	2.4%	

Combining them into a single view provides a couple of benefits:

Tableau only needs to render a single sheet, so until parallel processing comes out in v9, you'll see a performance benefit.

If you have a hierarchy, then expanding the hierarchy will keep the table and the sparklines together.

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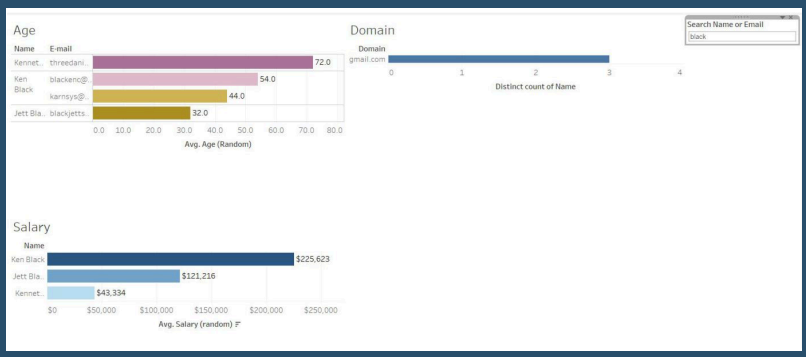
14) How To Perform Multi-Field Searching By Ken Black

Last week, I received a question from a developer that caused me to hesitate for a while to craft a solution. The complexity of his data situation caused me to remove myself from his example to be able to find a simple solution. What I show in this article is a solution for him and one that can be used in many situations.



The developer that created the question said that he had searched for a solution to this dilemma but could not find one. He reported that some solutions were close to what he needed, but he was unsuccessful in finding his answer.

This solution is a general use Tableau technique, so I thought this method would make a useful article. In some ways, the solution is so simple that I hesitated to write this, but I've learned that things like this will benefit people in the future if I take the time to show how it is done.

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15) 10 Tips for Using Shapes By Jeffrey A. Shaffer

#10 - Use the Tableau built-in shapes

#9 - Add your own custom shapes

#8 - Reload new shapes without restarting Tableau

#7 - Use transparent PNG files when possible

#6 - Adjusting color of shapes without encoding data

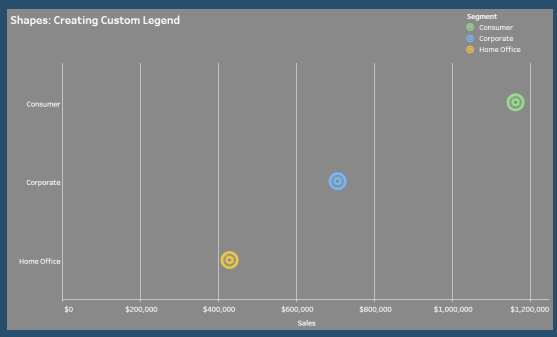
#5 - Use Shapes to add a help icon

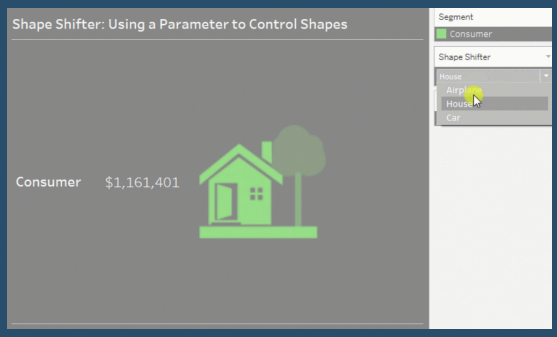
#4 - Use custom shapes to create custom legends

#3 - Shape Shifter: using a parameter to control shapes

#2 - Reduce file size by organizing your shapes

#1 - Download a zip file of all of the shapes in a Tableau Public Workbook





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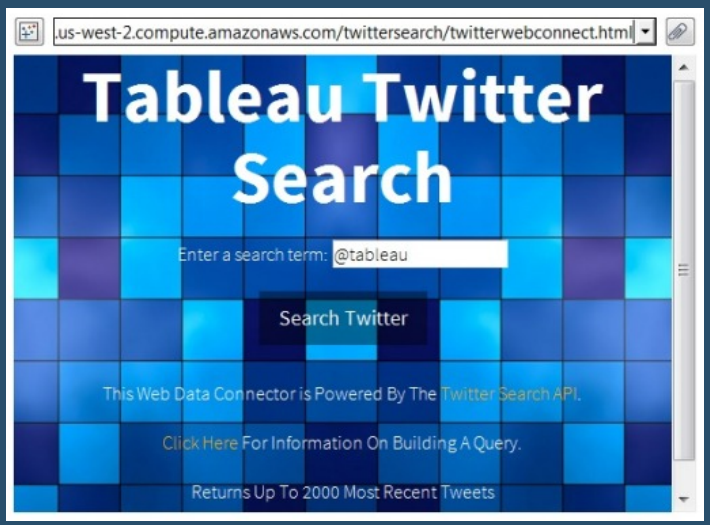
16) Creating A Twitter Web Data Connector By Alex Ross



For me, the best things about the new Web Data Connector are:

- Scheduling: The Web Data Connector can be scheduled to refresh within Tableau Server, and incremental refreshes are also supported. That means you can use the backgrounder to schedule and monitor you data refreshes. No more need to schedule and manage TDE API scripts outside the Tableau environment.

- Sharing: Once you write a Web Data Connector, you can simply upload it somewhere on the internet (it is just an html file after all) and anybody in the world can start using it. With the TDE API you would have to send your code to someone who would need to setup the required programming environment, libraries etc. to run it (assuming they know how and have the time to).

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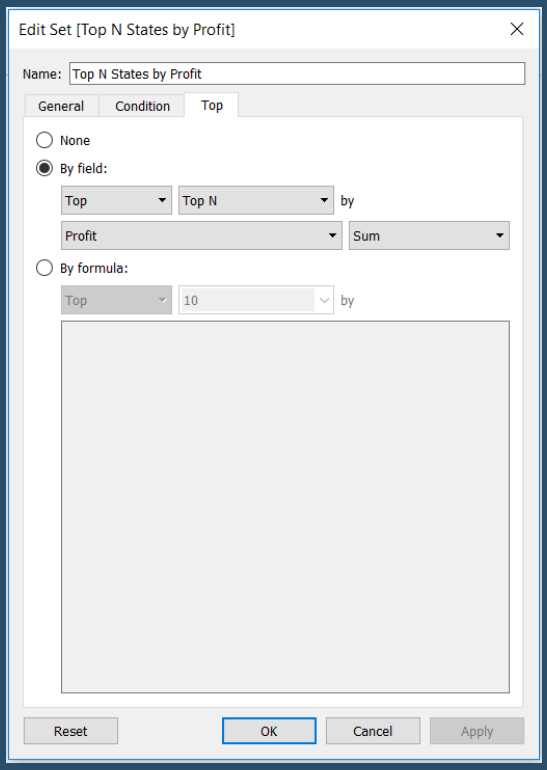
17) How to Dynamically Display the Top N vs Other
By Ryan Sleeper

There are times when I like to see every dimension member represented in a data visualization. For example, scatter plots are a great choice whenever you are wanting to view many data points in the same space. I'll also occasionally create a bar chart or histogram with every dimension member, even if it causes a vertical or horizontal scroll bar to appear.

While the "long-tail" insights these charts can provide have value, I tend to focus on the few dimension members causing the biggest impact on the business I'm analyzing. For this reason, I often show the Top N (i.e. usually Top 5 or Top 10) and group everything else into its own segment. And while I don't advocate the use of pie charts (here are 3 better options), I do always say that if you must use them, stick to five slices or fewer including "Other". This is how you do it.

This post will demonstrate how to dynamically display the Top N based on the number of dimension members the end user wants to show and how to group everything else into a segment for "Other".



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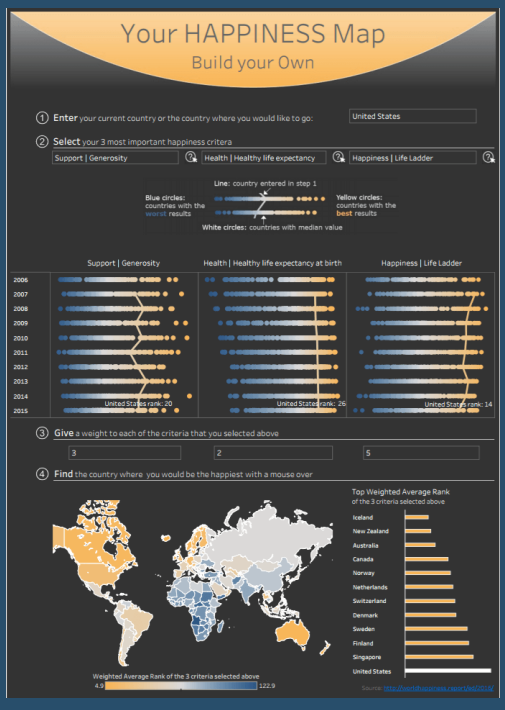
18) Two approaches to benchmarking with Tableau
By Yvan Fornes



I'm a business analytics consultant for Amadeus, a technology and software provider to the travel industry, at the Travel Intelligence department, and I often use Tableau to complete market studies. Tableau's data visualizations allow our customers, airlines, and travel agencies to understand how they're ranking against their competition. Visual analytics help us see if they are progressing faster or slower than the market, and as a result, if they're gaining or losing market shares. Benchmarking is a great way to help users understand the impact of business decisions in data visualizations and we'll discuss how to do that in Tableau.

Context, such as a market share or benchmark, is one of the most important things I consider when building a dashboard because it fundamentally helps the audience interpret data.

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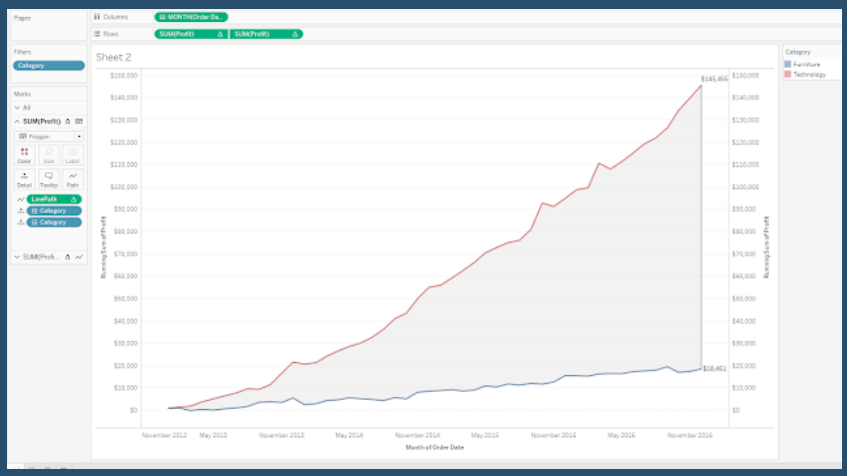
19) How to shade between 2 lines
By Rody Zakovich



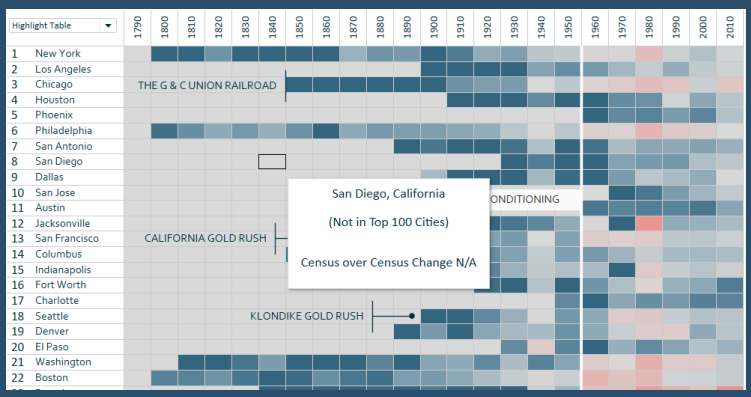
I have been playing around with Polygons a lot more in Tableau lately, and am starting to really like them. Polygons are very valuable, they are often used with Maps, or for sankeys/ area charts, but they are also beneficial for emphasizing gaps between two lines.

This example shows how to create a Polygon to shade between two lines. This method uses no data prep, and only 1 calculation. This is an alternative to the Area Chart version, and I think slightly cleaner.

To begin, I am going to load up Superstore Dataset. I'm going to look at the spread difference from Running Profit between Furniture and Technology Sales by Month. My goal is to create a shaded area between the two lines.

Go To Blog

20) How to Make Dynamic Tooltips in Tableau
By Ryan Sleeper



Tooltips, the box that appears with information about an item when you hover over it, are an effective way to save valuable real estate on a data visualization while providing context. Whenever I know that my data visualizations will be consumed via an interactive version of Tableau (i.e. Tableau Public, Tableau Online, Tableau Server, Tableau Reader), I move as much secondary information as possible to the tooltips. This is easily done by moving the fields you want displayed in the tooltips to the Tooltip Marks Card and formatting as desired.

However, there is one big drawback with tooltips. Any field that is placed on the Tooltip Marks Card will be shown for every mark on the view, and in the same format. There are times when this doesn't make sense, resulting in some strange results such as descriptive words in the tooltip that don't have corresponding values (which happens if the value is null). This post shares how to make dynamic tooltips in Tableau, allowing you to show different information for each mark.

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21) 10 Tips for When You're Handed Someone Else's Workbooks By Bridget Winds Cogley

Describe Sheet

Analysis Menu

Performance Monitoring

Captions

The grey space

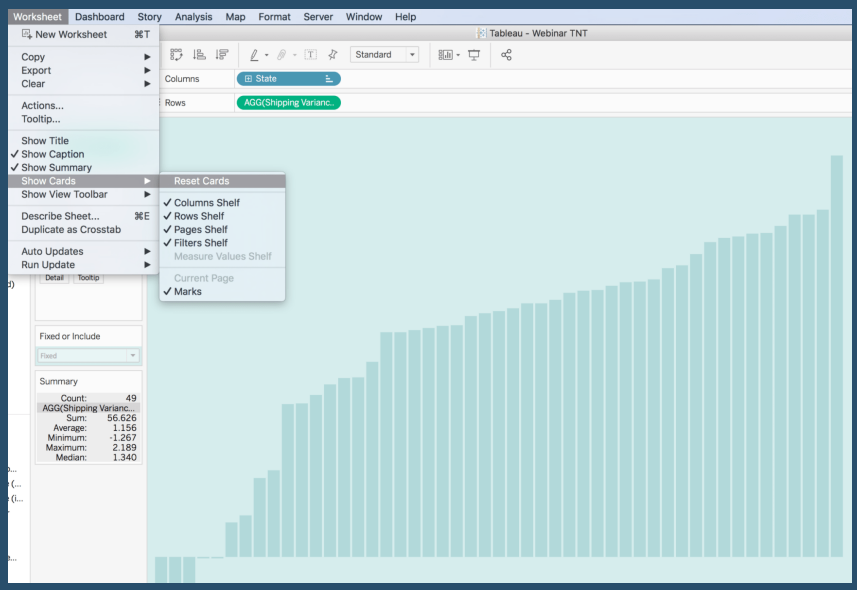
Undo

View cards

Default Properties

Basic Order for Format, Properties, and more

Aggregate/Non-Aggregate Conflicts



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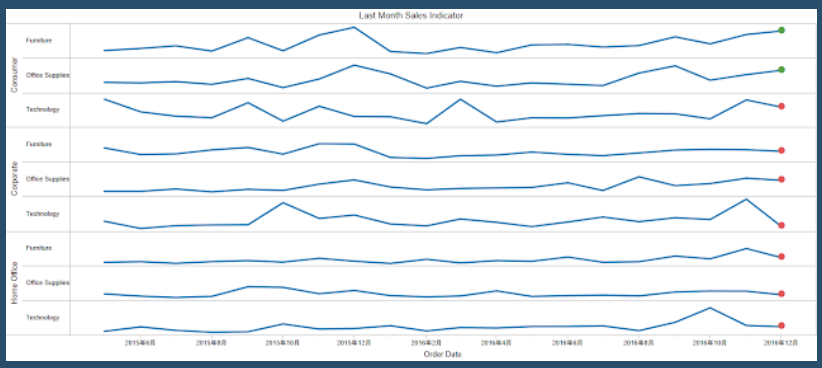
22) End-of-Line Trend Indicator without Dual Axis By Alexander Mou



The end of line trend indicator can provide an effective visual hint in dashboard.

Sometimes your axis is busy with dual charts. So you don't have the luxury of using dual axis to create an end-of-line trend indicator. Here we are going to show that you don't need dual axis to do that.

The trick is easy: put it inside the **Label**.

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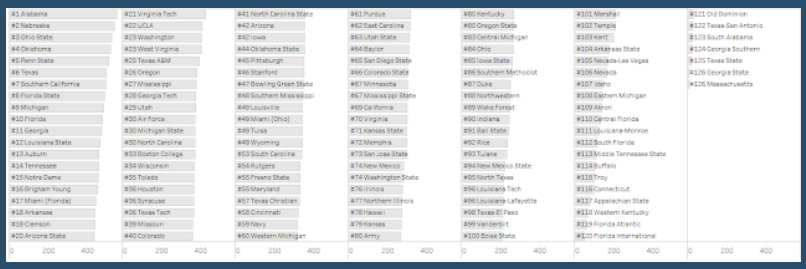
23) How to "Split-up" a long Bar Chart
By Rody Zakovich



Every so often, an Analyst might run across a situation where they need to compare values among a very long list of categories. This is simple enough to accomplish in Tableau, but there is generally a pitfall....you might have to scroll....

So what do you do from here? One option might be to limit the number of categories, say to a Top 10, or Top 25. But what if you don't want to do that, what if you want to show every category in a manner that still allows for comparison in a single view? What do you do? Well, you split up the categories into smaller sub-sets.

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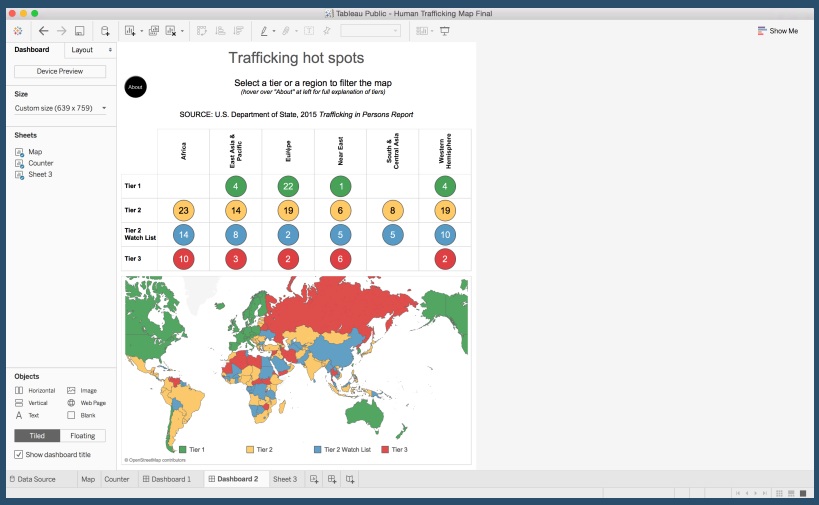
24) Tips for Designing Mobile-Friendly Dashboards
By Dash Davidson



WHEN DESIGNING a visualization for consumption on cell phones, the smallest of screens, you must take utmost care to put yourself in the mind of your consumers. Imagine how they'll interact with your visualization on the phone.

So what do you do from here? One option might be to limit the number of categories, say to a Top 10, or Top 25. But what if you don't want to do that, what if you want to show every category in a manner that still allows for comparison in a single view? What do you do? Well, you split up the categories into smaller sub-sets.

Go To Blog

25) The Need for Speed: How to build Tableau visualisations quickly
By Joshua Milligan

Flow!

Use Workbook formatting to set defaults

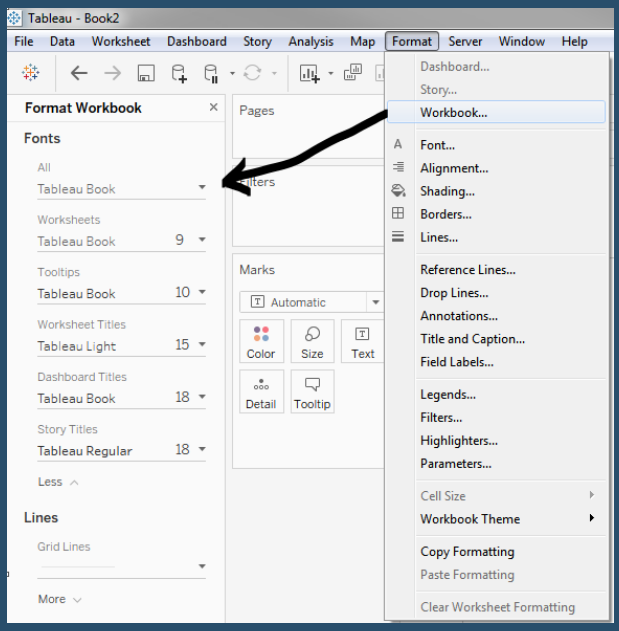
Use default aggregations and formatting for fields.

Duplicate views to copy formatting.

Use a few shortcuts!

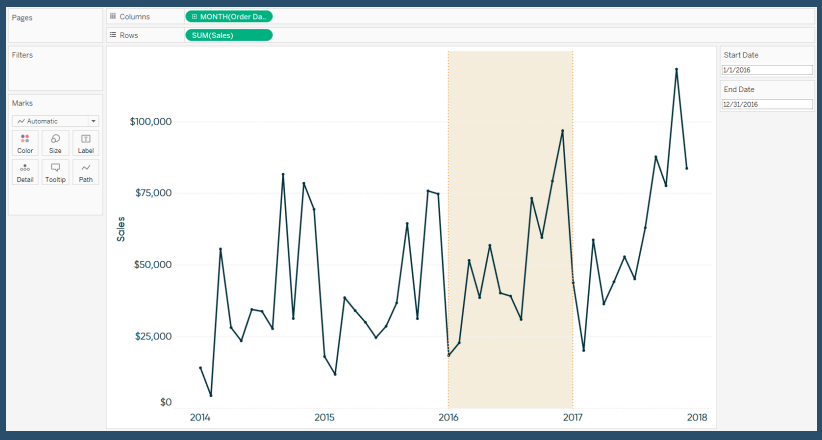
Find and use available resources (and give credit where due).

Have fun!



Go To Blog

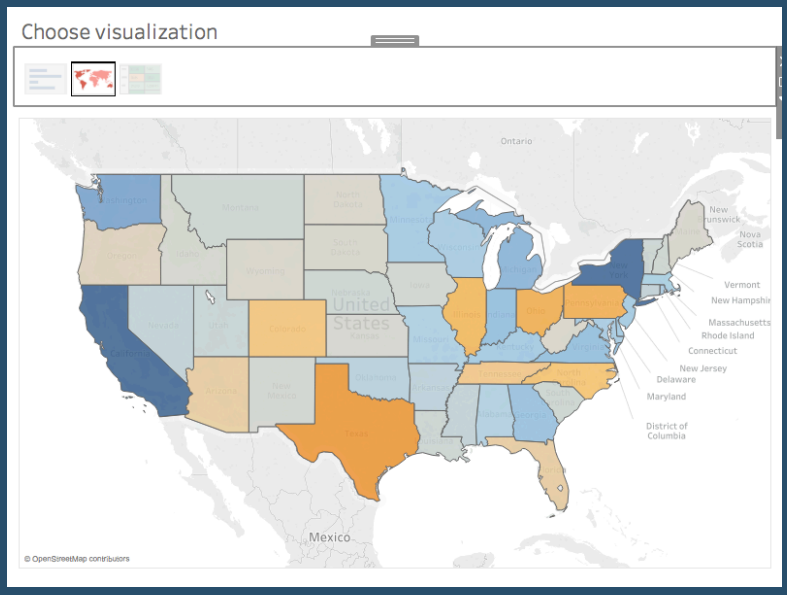
26) Highlighting Data Points in a Custom Date Range
By Ryan Sleeper



This tutorial will illustrate how to add a highlighter to a custom date range selected by an end user. The highlighter will lay over the data points corresponding with the selected range of dates. This technique will help you and your dashboard's users see the marks in the selected date range in context of the other marks on the view and is an easy way to enhance the design of a line graph. One of the best parts about the following approach is that it will not require you to use the dual-axis, leaving some flexibility to add even more context or aesthetic improvements to the graph.

Go To Blog

27) Sheet Selector with Dashboard Actions
By Matt Chambers



One of the very first tricks I learned in Tableau was how to create a sheet selector. I used this trick in one of my first Tableau Public visualizations on Tommy John surgery. This was the first time that I realized you could add additional functionality to Tableau even if said functionality is not supported out of the box. Adding a sheet selector let's the user change the sheet within a dashboard without moving to another dashboard. This technique relies on using a parameter to change a filter that hides or shows dashboards within a container.

This is a tried and true technique, but I wanted to be able to do it without using a parameter. I wanted to be able to use different user interface elements to drive the sheet selector, so I will show you two different options.

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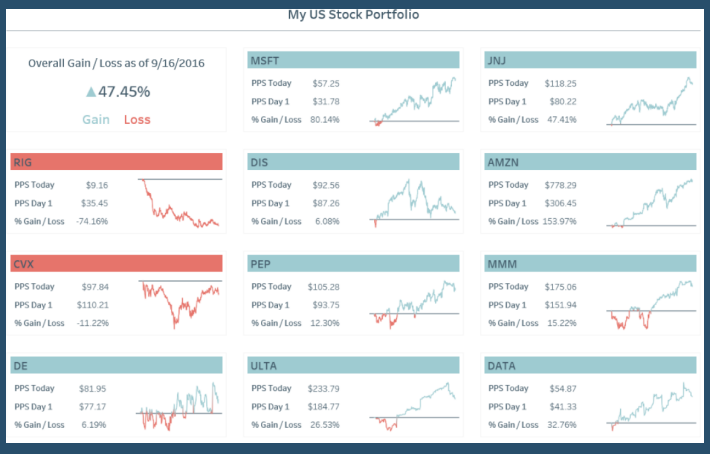
28) How to Make Performance Indicator Titles
By Ryan Sleeper



One of my favorite descriptive tactics in Tableau is to conditionally color a dashboard object based on whether the performance improved or declined. This is a descriptive tactic because it only provides a very high-level overview on how something is performing, but it works well for several reasons: (1) it helps avoid the question, "So what?", by providing at least one comparison point (2) provides an alert that a deeper analysis should take place (3) is almost universally understood by end users.

These indicator titles can be used in two ways. First, they can be used behind a callout number to give a bold visual cue that the KPI featured is performing better or worse. Second, they can be used without numbers, making the title of a chart act as a basic data visualization itself. This post will show you how to create an indicator title as seen in My US Stock Portfolio.

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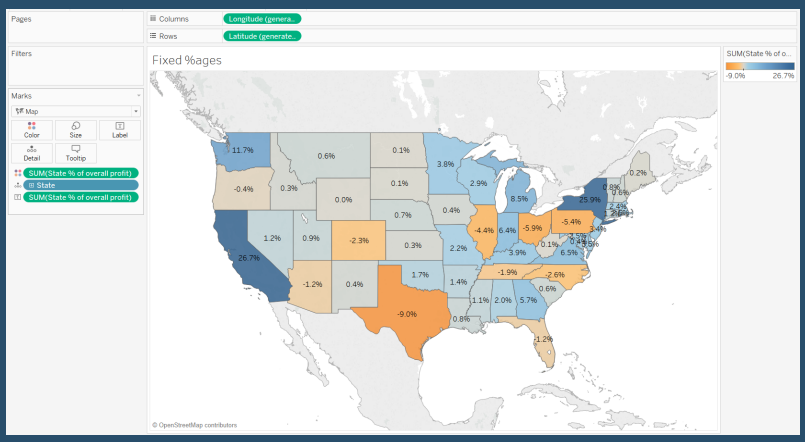
29) How to Talk 'Tablish': Lesson 2
By Joe Macari



Following on from my previous lesson, How to Talk Tablish: Lesson 1, we will be moving our attention away from table calculations and onto Level of Detail calculations (LODs). Que screams of sheer horror…

Fear not dear reader, these are not as scary as you may initially think. You will soon be as fearless as a small dog chasing a bunch of pesky seals off a pier!

Prior to my time in Data School I had watched a former conference video with LODs and managed to replicate one of the charts without really knowing what was going on.

Go To Blog

30) What to name your Tableau Server?
By Paul Banoub

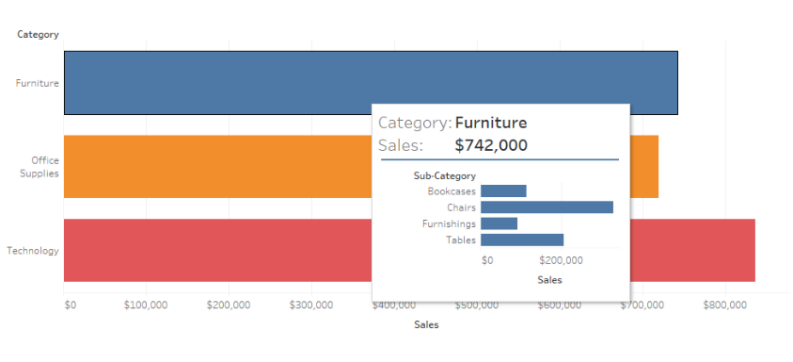
This one all started with a tweet from my good pal, the Wizard of Excel (and Tableau genius) Mr Dan Harrison (@danosirra) who was wondering what to name his Tableau server host.

This awakened the server admin in me (not that it's ever asleep).. It also made me question Dan's taste in music.

And this is the point. Server naming is critical in any organisation, large or small.

Go To Blog

31) Another 10 tips for Viz in Tooltips By Jeffrey Shaffer

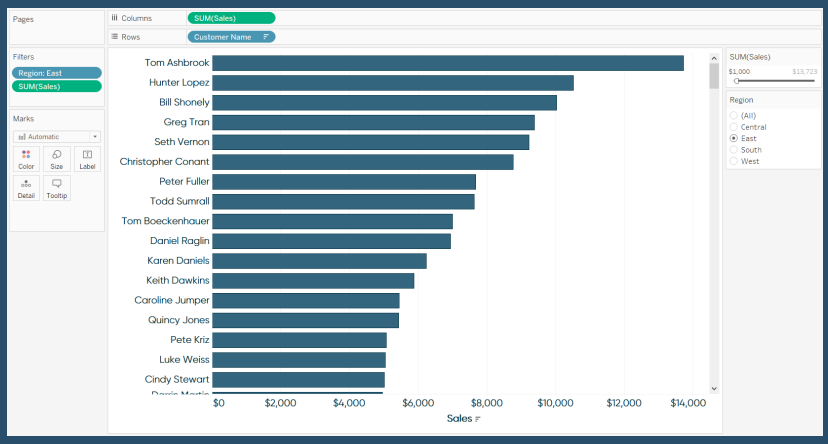


#10 - Add an Empty Sheet with Maxheight=9
#9 - Add an Empty Sheet and Use Row Divider to Create Lines in Tooltip
#8 - Create a Workbook with All of Your Formatted Lines
#7 - Use an Empty Sheet to set Maxwidth and Maxheight for the Tooltip
#6 - Center or Right-Align the Viz in Tooltip
#5 - Use the Same Empty Sheet Again in the Same Tooltip

#4 - Create a Side by Side Chart
#3 - Adjust the Size of the Tooltip Window using Parameters
#2 - Use the Viz in Tooltip as a Zoom Feature
#1 - Put Multiple Charts Together in a Grid

Go To Blog

32) How to Use INDEX() for Easier Top N Filters By Ryan Sleeper



With each new field you add to the Filters Shelf in Tableau, you increase the complexity of the view and it becomes increasingly challenging to manage the combination of filters being used. Each filter being used acts as an AND statement, meaning that all criteria between every filter have to be met in order for the mark to show on the view. To make things trickier, some of the filters can be include, while others can be exclude. To make things *even* trickier, you can have measure filters and dimension filters, but the condition tab in a dimension filter can include measures – what?

Sometimes you simply want to show the top N (i.e. Top 5, Top 10, etc.) for whatever is left after entering all of the criteria. This post provides a very quick tip that I sometimes use to make my filters easier to manage and more predictable. This trick has the potential to not only improve the user experience of a view, but also of the authoring experience itself.

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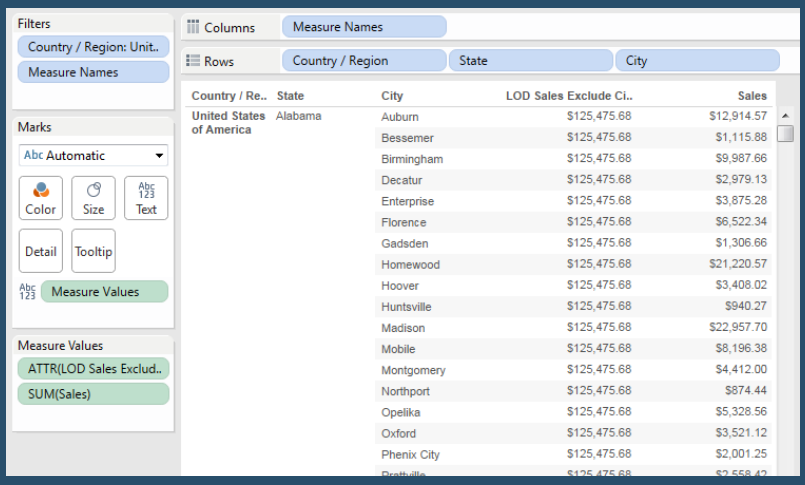
33) LOD - The Exclude Calculation
By Robert Curtis

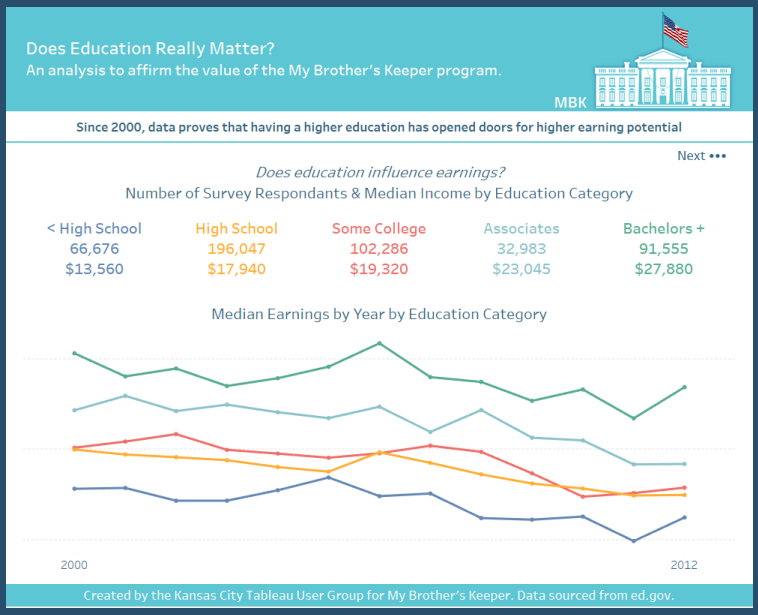


We're looking at the sum of sales by City further segmented by State and Country/ Region with a USA-only filter. If I wanted to show my sales by state or country alongside sales by city, it would prove to be particularly difficult. Even re-ordering my dimensions has little effect aside from how the viz is organized.

We can use the Exclude level of detail calculation to accomplish this requirement. Let's start by excluding the **City** dimension. Remember our example with the Include LOD calculation? We must first sum our results within the calculation and then allow Tableau Desktop to use the average aggregation type in the view. Here's our calculation, named **LOD Sales Exclude City**:

Go To Blog

34) Intro-Style Dashboard with Cross-Dashboard Navigation
By Ryan Sleeper

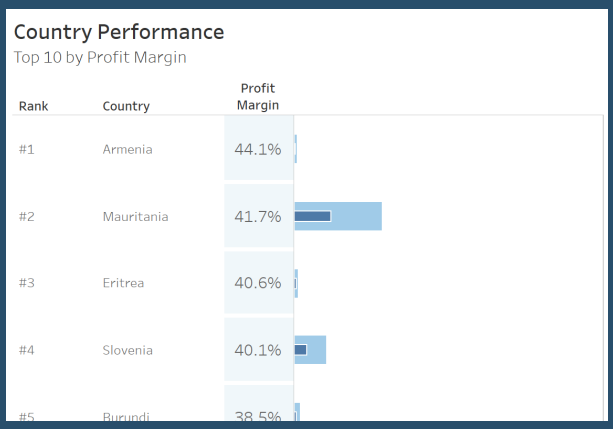


I have to admit that I have yet to use Tableau's story points feature in any of my consulting engagements. The spirit of the feature is great, and when it was released I was excited by the prospect of replacing PowerPoint to share my data stories. But the reason I don't personally use story points stems from my point of view that getting the point across in the first screen is your best chance at causing an impact. I believe that most users simply will not click through multiple pages to figure out what you're trying to tell them.

That being said, I also believe in providing context / set-up for dashboards and – as you've seen in the prior posts in this series – strategically breaking up views into their own dashboards and/or workbooks. This post shows you how to make a variation of story points to introduce a dashboard and improve the chances of your end user flipping through interior workbook pages.

Go To Blog

35) Table Calculations - Custom Sorts, Part Three
By Robert Curtis



In the last post of our series on custom sorts in table calculations, we'll examine one of the most common questions that I get from Tableau Training. In fact, I just had this question last week in Perth, Western Australia by a student named Mayank. Here's the question:

"How do I sort on discrete measures?"

Often, we make measures discrete so we can include them in the header as a number and visualize a different measure in the chart. Let's use custom sorts to make this work.

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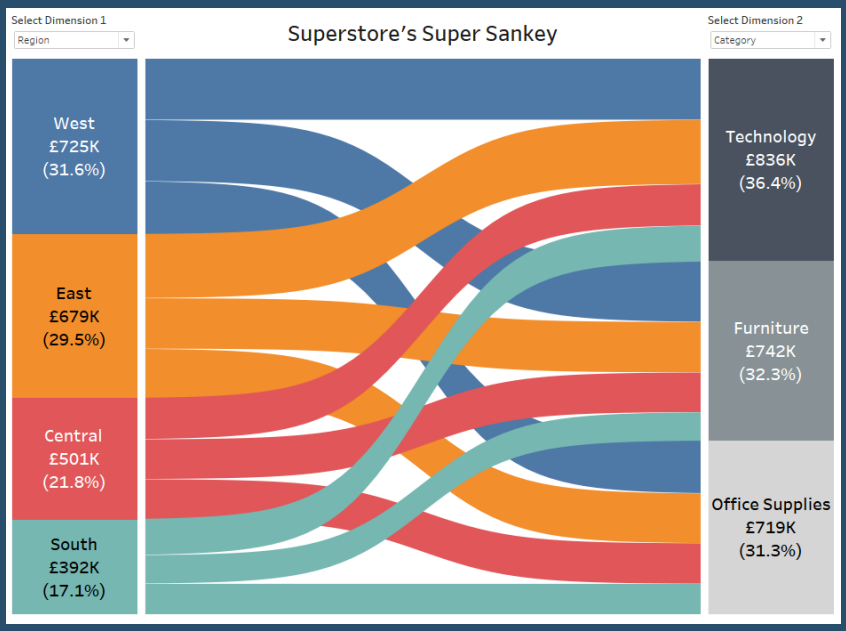
36) Cross Database Union & the other MAX/MIN functions
By Joshua Milligan

Cross database joins have been available in Tableau for a while now – and I love the ability to join data at a row-level across various databases and files! And union functionality is available, but for now, only if you are dealing with tables in the same database (or files or Excel tabs). But what if you want to union tables that are in different databases? There is a way…

Jonathan Drummey has an excellent post covering how to use a cross database join to effectively **union together almost any data sources** you want. My goal is not to replicate his post here, but to provide a similar example and then springboard to a discussion of **the "other" max() and min() functions in Tableau that you may never have used**!

Go To Blog

37) How to build a Sankey diagram without any data prep beforehand
By Ian Baldwin



First of all I want to say this post is hugely indebted to Olivier Catherin and his post four years ago on building Sankeys in Tableau and Jeff Schaffer whose work Olivier built off and countless others I probably don't even realise.

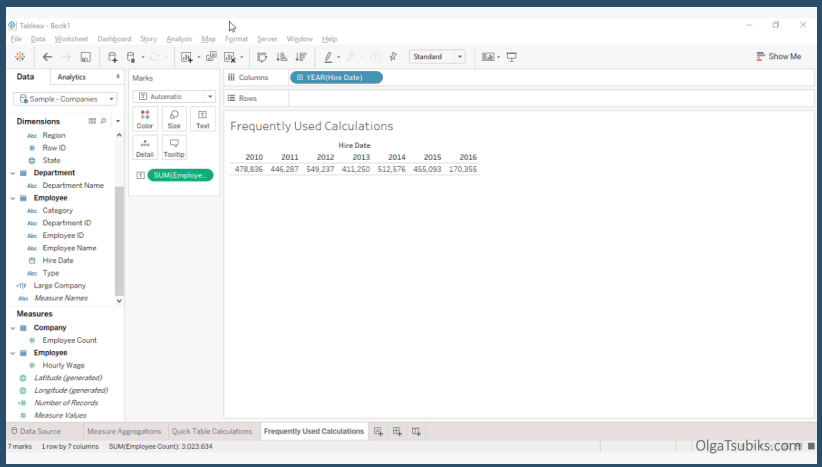
This post sets out how to build a Sankey Diagram without any data prep before Tableau. The viz below is built off the vanilla Superstore data packaged with Tableau, but I must warn you there's a labyrinth of table calculations to get to this point.

There are 20 calculations to get through to get to this stage so what makes it worth it? All previous solutions I've seen for building Sankeys have needed to multiply the size of the data by at least a factor of two beforehand.

Go To Blog

38) 10 Frequently Used Tableau Calculations
By Olga Tsubiks

LOOKUP(expression, [offset])
ZN()
TOTAL()
RANK(expression, ['asc'], ['desc'])
WINDOW_AVG(expression, [start, end])
ABS()
INDEX()
FIRST()
LAST()
CONTAINS(expression, expression to search for)



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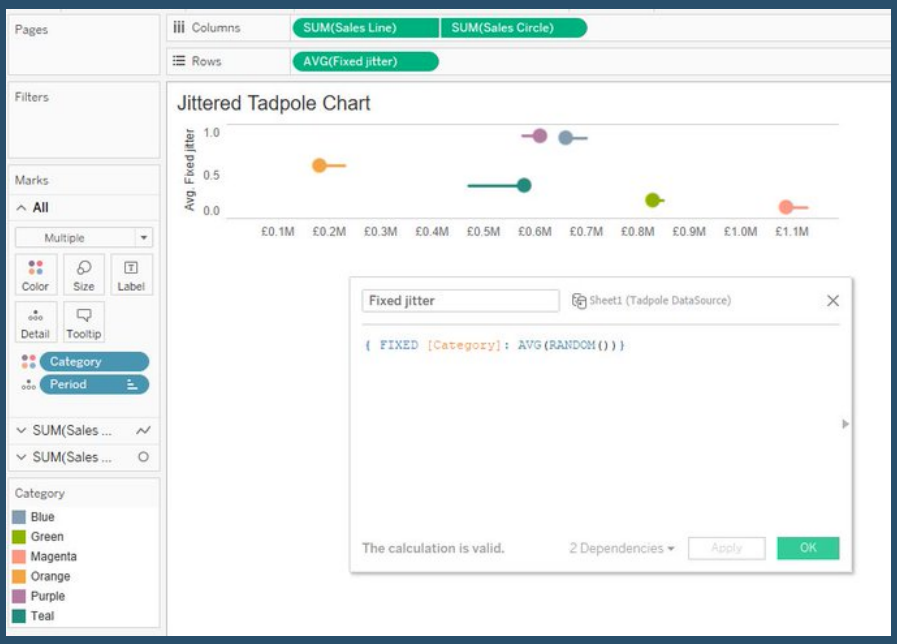
39) The Spawning of the Tadpole Chart
By Mark Edwards



So, the circle represents the current year position along the axis, and the line represents the change in this year versus the previous year. The relative simplicity of this chart really pleased me, and it's the sort of thing I have lots of regular use cases for. Immediately I could see some applications for it, and since I was sat on a train going nowhere, I dug out my trusty notebook to hand began to scribble.

It appeared so neat to show every item on a single horizontal line, but there is the risk that where any two lines overlapped you wouldn't be able to read the length of one or more of them. Also, this would work really neatly for a small number of items but perhaps not if we wanted to measure a dozen or more.

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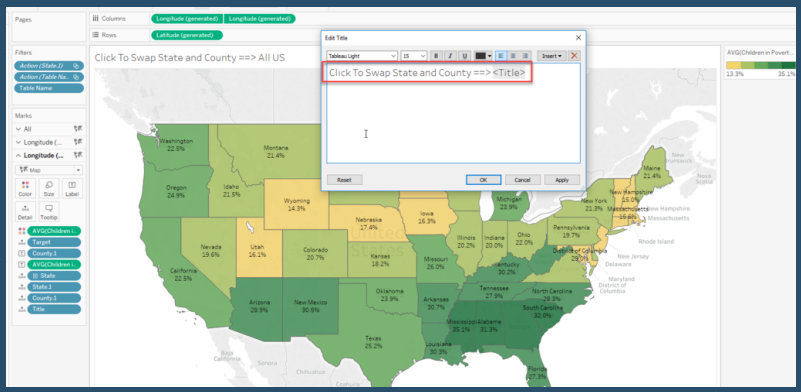
40) One Click Zoom IN and OUT on a Map
By Shinichiro Murakami

Long time no write :)

The other day, I uploaded the Video-clip of one-click zoom in / out.

There were unexpectedly lots of replies over weekend that includes the requests to explain the steps.



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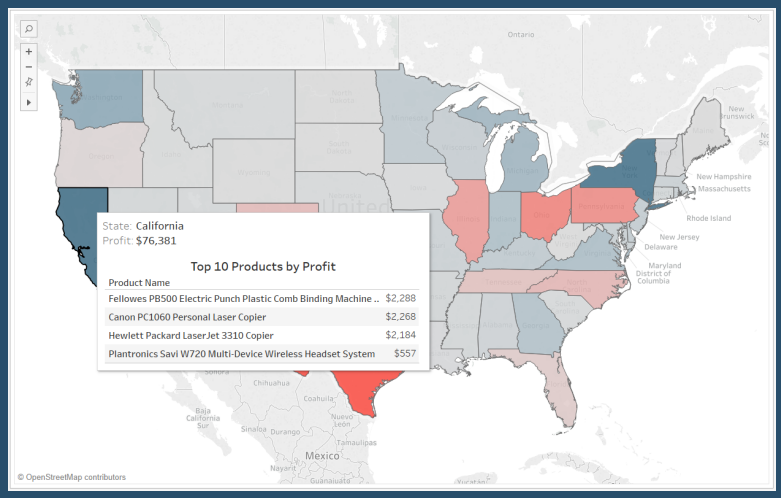
41) How to Show Top 10 Lists in Tableau Tooltips
By Ryan Sleeper



You may have heard the recommendation to provide your dashboard users details on demand. While I generally agree with the idea of a dashboard flowing from overview – to drilldown (or filtering) – to specific details when needed, there can be some negative consequences if your end users are too focused on the raw data. Most notably, the raw data does not provide the benefits of data visualization, and often means exporting the data from Tableau – stopping the flow of thought dead in its tracks.

One of my favorite ways to provide details on demand is through Tableau's viz in tooltip feature. I'll set up a sheet containing the detail and add it to the tooltip of an overview or filtered visual. The challenge is that due to the order of operations of Tableau filters, it's tricky to filter the tooltip to the correct details. This post will show you two approaches for filtering a list to the top 10 when it's being used within a Tableau tooltip. This means that whatever dimension member you are hovering over on a dashboard will display a detailed top 10 list for that specific dimension member.

Go To Blog

42) Beyond "Show Me" Part 1: It's All About the X & Y
By Ken Flerlage

This is part 1 of a 3 part series on going beyond the charts available in the "Show Me" panel in Tableau. In this first post, I'll dig into my first "aha" moment which totally changed how I viewed Tableau. In the next, I'll take these concepts to the next level by introducing some of the math needed to create more advanced custom visuals.

If you're already an advanced Tableau user, then this post is not for you (though I'd love for you to stick around and give it a read). Rather, this first post is for those of you who are where I was this time last year. You're a Tableau user and know the product fairly well. You may have been using it for just a couple of months or even years. But you tend to only create charts available in the "Show Me" panel. Now don't get me wrong—there is a reason why Tableau has chosen to include these 24 default chart types.

Go To Blog

43) Is anyone using my viz? By Lorena Merary Vazquez

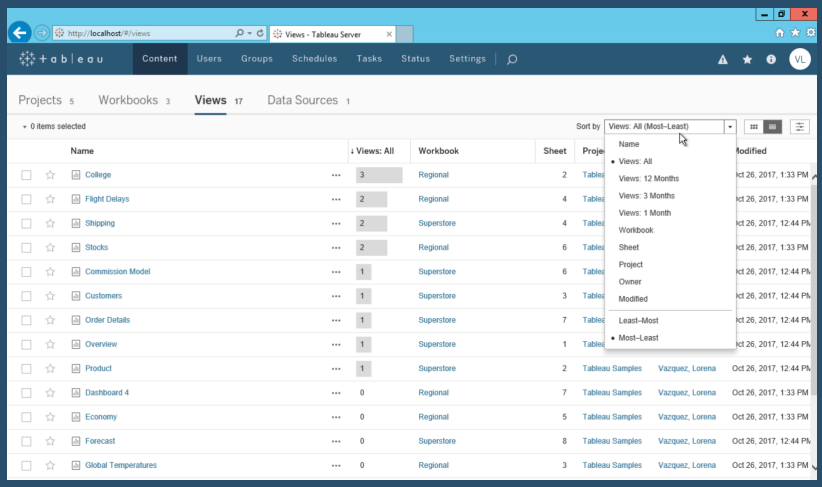
So you think you're viz is not popular? Do you think you're the only one that's using it? Think again!

If you've ever worked with Tableau Server (or maybe you haven't) and wondered if anyone was looking at your dashboard or published data sources, well, you don't have to guess anymore. Tableau Server offers ends users various access points to get at this great question.

"Who has seen this view?" Menu Link

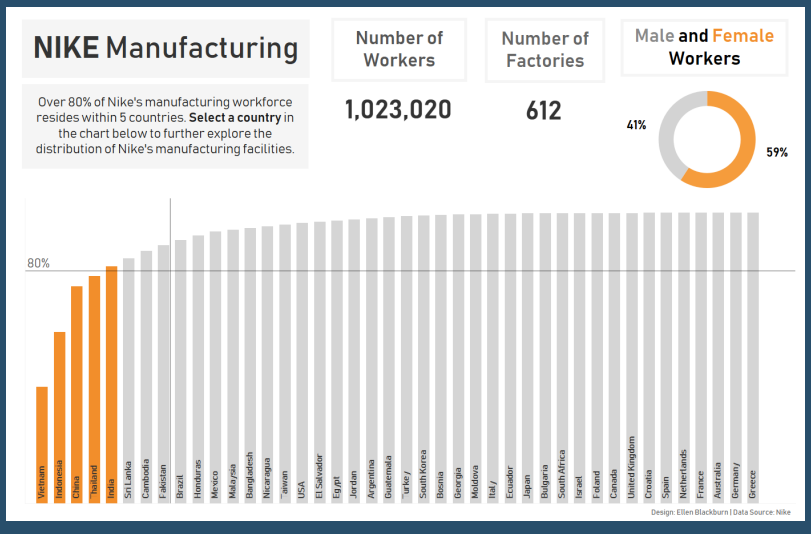
Sort By View Option

Tableau Server Admin Views



[Go To Blog]

44) How to make a Pareto Chart By Ellen Blackburn



The Pareto principle (or the 80/20 rule) dictates that 80% of the effects come from 20% of the cause. In a typical Pareto chart, values are often represented within a descending bar chart with a cumulative percent of total represented by a concurrent line.

Another way of approaching a Pareto chart (which I much prefer) is to only reflect the cumulative percent of total within the bar chart itself. I used this format within my recent attempt at Makeover Monday Week 36, which explores the locations of Nike manufacturing around the world. Accordingly, this is the chart I'm going to go through step by step below.

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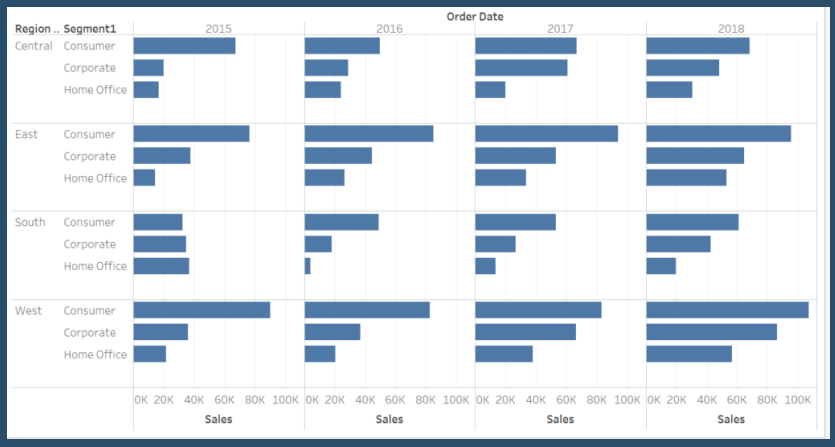
45) Quick Tip – How to create extra space between your bars By Nils Macher

Have you ever had the issue that you want to create extra space between bars which belong to a different category?

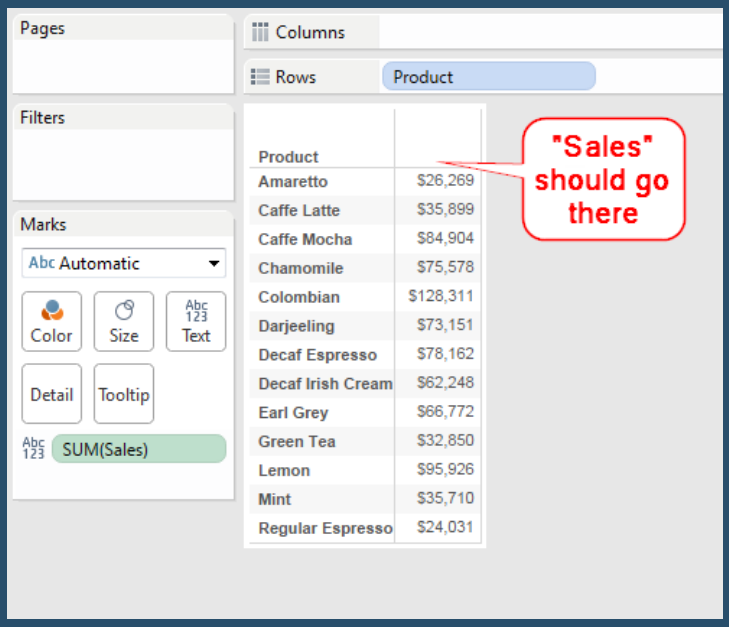
It is really difficult to see which bars belong to which region. The last row for each segment is really close to the first row of the following segment. On the first glance, it might seem like those 2 bars belong to the same region. With a little trick, it is possible to create extra space between these 2 rows.



Go To Blog

46) The One-Click Trick to Creating Headers for Single-Measure Tables By Jonathan Drummey

This is a little tip that started out with a "Tableau doesn't do that" and then an "Ooh…it does…that's so cool!"



Here's the problem: In a single-measure table, I want the name of the measure column as a header. In this worksheet, which uses the sample coffee chain data, I want the header "sales" to show up on top of the sales column:

Now there is a bunch of ways to work around this. If you really want to read a comprehensive list, check out the gory details. But there's a way that tops them all that I learned, thanks to Alberto Bertellino in the aforementioned thread. From the above view (which took two clicks to build), do one (ONE!) more click & drag operation to drop Measure Values over the column, and voila!

Go To Blog

47) Process Control Charts
By Chris Dickson

One of the major subsets of analysis (or drivers for analysis) is "Is this normal behaviour?", and one of the most common chart types to address this question is the Control Chart. In short it plots a measure over time and compares this to an upper and lower "Control Limit" giving you confidence that a process or outcome is normal and/or under control.

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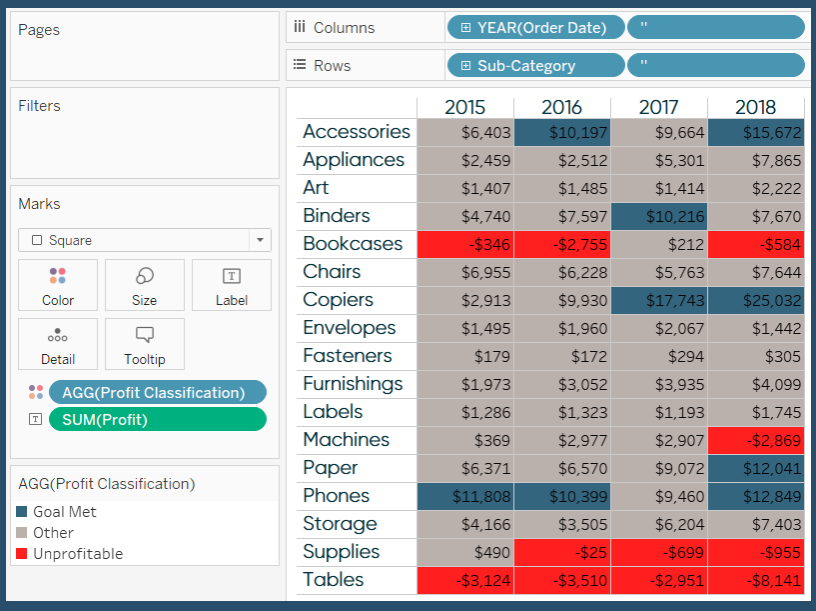
48) 3 More Ways to Overcome the Excel Barrier to Tableau Adoption
By Ryan Sleeper



	2015	2016	2017	2018
Accessories	$6,403	$10,197	$9,664	$15,672
Appliances	$2,459	$2,512	$5,301	$7,865
Art	$1,407	$1,485	$1,414	$2,222
Binders	$4,740	$7,597	$10,216	$7,670
Bookcases	-$346	-$2,755	$212	-$584
Chairs	$6,955	$6,228	$5,763	$7,644
Copiers	$2,913	$9,930	$17,743	$25,032
Envelopes	$1,495	$1,960	$2,067	$1,442
Fasteners	$179	$172	$294	$305
Furnishings	$1,973	$3,052	$3,935	$4,099
Labels	$1,286	$1,323	$1,193	$1,745
Machines	$369	$2,977	$2,907	-$2,869
Paper	$6,371	$6,570	$9,072	$12,041
Phones	$11,808	$10,399	$9,460	$12,849
Storage	$4,166	$3,505	$6,204	$7,403
Supplies	$490	-$25	-$699	-$955
Tables	-$3,124	-$3,510	-$2,951	-$8,141

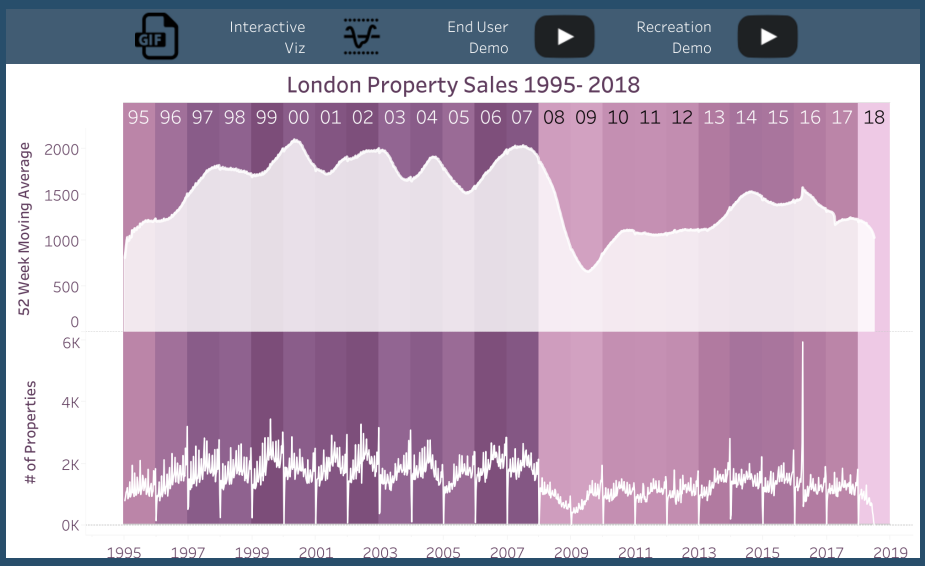
Yikes – I'm getting old in Tableau years. This week I clicked on a Tableau Public post I thought sounded interesting: 3 Tips to Overcoming the Excel Barrier to Tableau Adoption. Wow, I thought, the Tableau Public team is so in tune, and that sounds just like something I would say. Interested to hear their take, I clicked on the article to discover I had wrote it in May of 2016! Ah, May 2016. A time before I started Playfair Data, my Twitter handle was @OSMGuy, and the Kansas City Royals were defending World Series Champions.

I also had an epiphany. I thought back to all the posts I've shared and presentations I've delivered in hopes of evangelizing moving business users from a spreadsheet mentality to data visualization. What I realized is: **this is just as relevant as ever.** Now ten years into my career, my primary challenge remains convincing my stakeholders to leave the comfort of Excel behind for the value of self-service analytics and data visualization that Tableau thrives at. Something so seemingly obvious that has technically been available since William Playfair conjured up the bar chart and line graph in 1786, but which so few companies are doing well.

Go To Blog

49) 8 analytic concepts to express with set actions
By Bethany Lyons

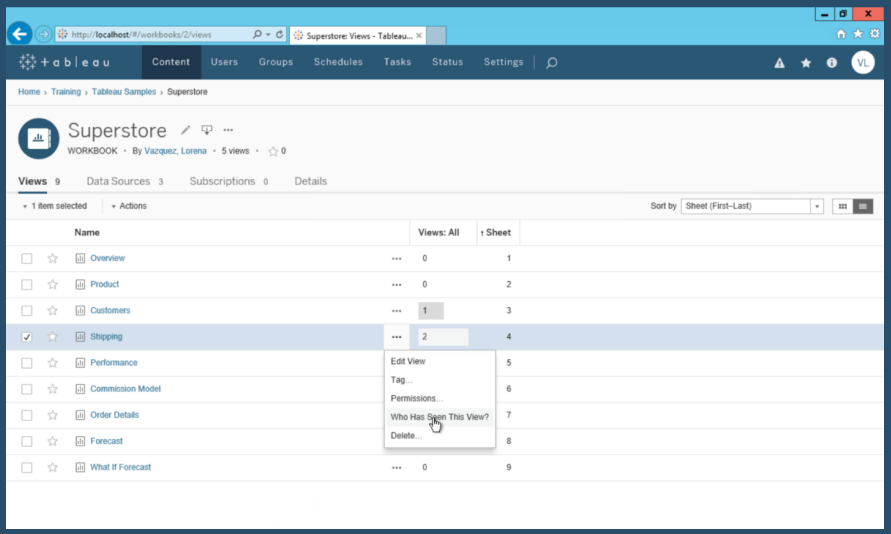
Released in Tableau 2018.3, the set actions feature extends the interactivity in Tableau, allowing for deeper, more diverse comparisons through user selections and opportunities to see your data in a new light. Now you can provide richer analysis, more flexible exploration, and simpler user experiences for your stakeholders. For an introduction on how to bring powerful new comparisons to viz audiences with set actions, read more here.



Set actions make interactivity more expressive, providing precise control on dashboard design without any programming. They enable users to design a variety of custom responses to end user interactions. It's now possible to coordinate different behaviours across multiple visualisations with a single selection, creating nearly endless compositions.

Go To Blog

50) How to Convert a Reference Line into a Level of Detail Expression
By Andy Kriebel



This week's tip builds upon my tip from two weeks ago: How to Convert a Reference Line into a Table Calculation. In this tip, instead of using table calcs, I'll show you how to convert a reference line into a LOD.

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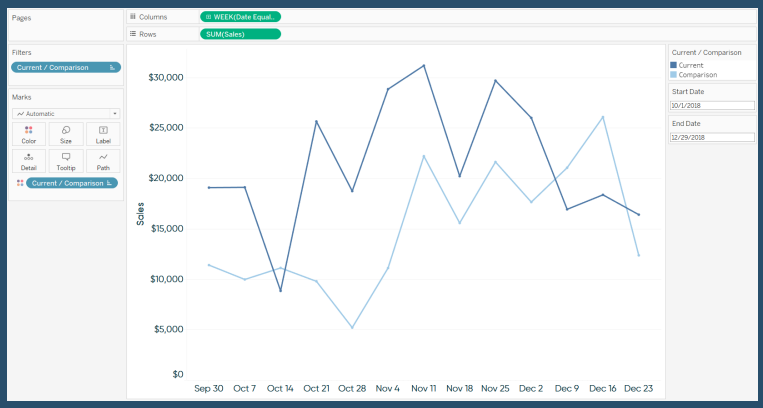
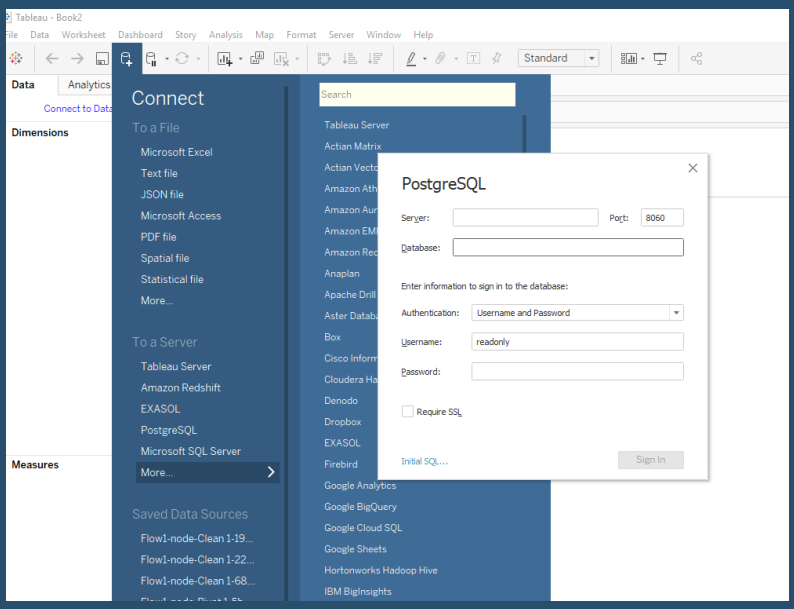
51) How to Show Current and Prior Period Dates on the Same Axis in Tableau
By Ryan Sleeper



Dates can be tricky to work with in Tableau. It's no wonder there are six different chapters in Practical Tableau explaining different approaches to get the most out of this special data type. One of my favorite techniques that doesn't happen 'out-of-the-box' for us in Tableau is to compare the performance of a selected date range to the performance of the date range immediately preceding it. For example, if I choose this week as the current date range, I want to see this week's data in addition to last week's data so I can do an easy period-over-period analysis

Go To Blog

52) Custom Tableau Server Admin Views
By Meera Vijayan

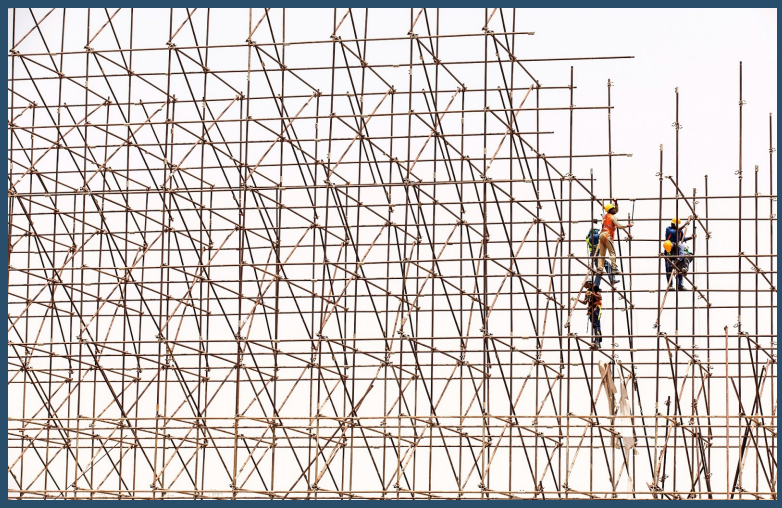


It is tableau server week at Data School Down under and the tableau server guru, Jonothan MacDonald is here with us all week teaching us about Tableau Server. We have installed the Tableau Server and did a backup of it and did some basics of tabcmd and tsm command. It was fun!

Our Friday challenge was to build a custom view of tableau server admin. We can customize the Tableau Server admin views for monitoring usage and data server statistics. For this, we need access to the underlying Postgres database that contains a lot of useful information about the tableau server usage.

Go To Blog

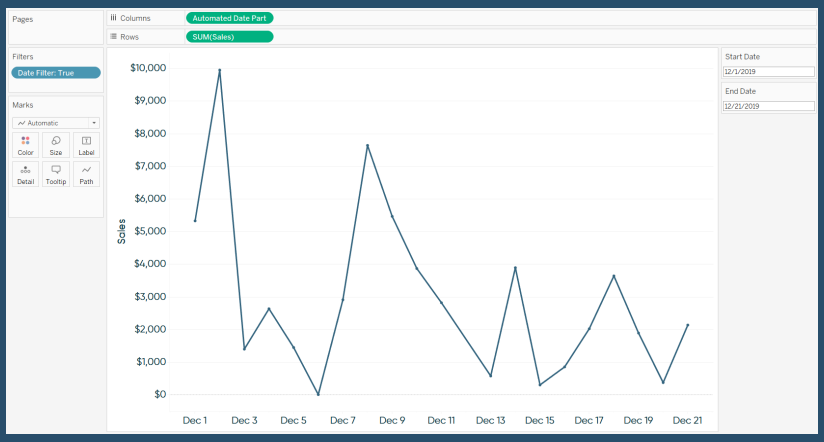
53) Creating a Date Scaffold in Tableau
By Ken Flerlage



I spend a lot of time answering questions on the Tableau Community Forum and one common problem I see is missing dates. For instance, you may want your visualization to always show all twelve months of the year, regardless of whether or not there is data for all twelve months. Quite often, the solution to these problems is to use a date scaffold. So, in this blog I'm going to show you how to create and use a date scaffold in Tableau. I will note here that I'm not the first to write about data scaffolds—it's actually a pretty common technique and something that has been written about quite a bit. But my goal is to give you my spin on it as well as provide a couple of different methods for creating a scaffold.

Go To Blog

54) How to Automatically Change Date Granularity Based on Days in Range
By Ryan Sleeper



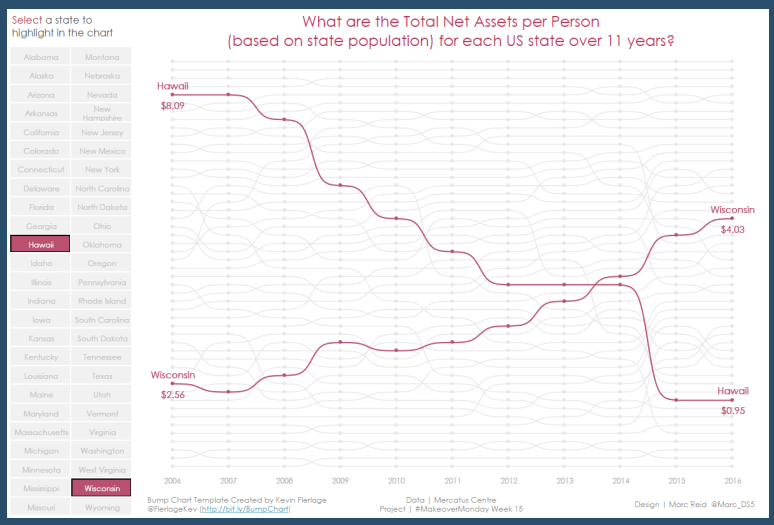
I've shared before how to let your end users change the date part of a line graph in Tableau. Then this tactic was made even better with Tableau's Parameter Actions Extension, which allowed the user to change the date part using a button. These are both useful techniques for quickly making line graphs more and less granular in Tableau. By the way, parameter actions are a standard feature in Tableau Desktop 2019.2 (coming soon) so you will no longer need to download and install the extension.

Well, let's make this tactic better once again by automatically changing the date granularity to the most appropriate date part based on the number of days in the selected date range. This post shows you how to change the date part of a line graph from day, to week, to month, based on if there are 30 or fewer, 90 or fewer, or more than 90 days on the view, respectively.

Go To Blog

55) Creating a Selection Panel with Set Actions
By Marc Reid

For last week's #MakeoverMonday on "Ranking the States by Fiscal Condition" I created a bump chart showing the total net assets per person for each state based on each state's population. The curvy bump chart was created using Kevin Flerlage's excellent Excel template, which you can read all about in his detailed blog post here ⇨ bit.ly/BumpChart.



This post will focus on the **selection panel** to the left of the bump chart that allows you to select a state (or states) and have that state highlighted in the bump chart, which was created with a couple of formulas and a set action.

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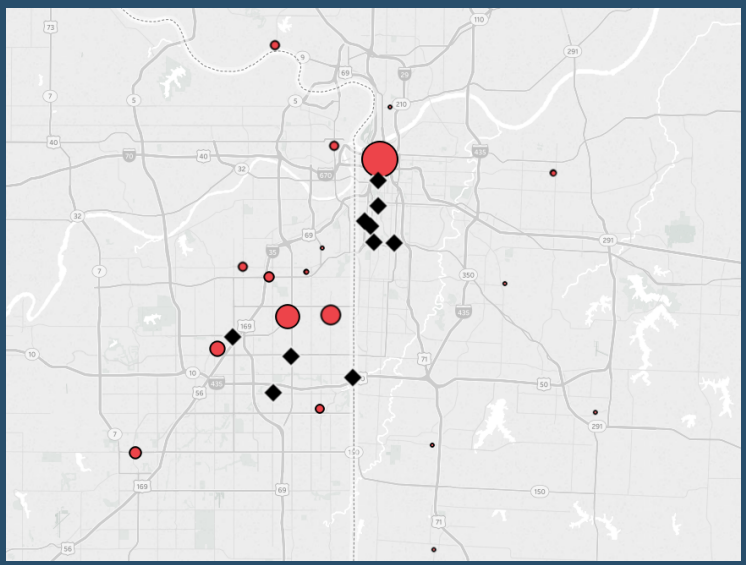
56) 3 Ways to Make Magnificent Maps
By Ryan Sleeper



Maps are one of the most effective chart types in Tableau and are also among the easiest chart types to create. They are effective because they help us decode latitude and longitude combinations almost instantly, allowing us to see patterns between geographic locations that may otherwise be challenging to discover. They are easy to create because Tableau comes prepackaged with thousands of geographic coordinates all over the world. This makes it so that simply double-clicking on a dimension that Tableau recognizes as geographic will create a map on the view.

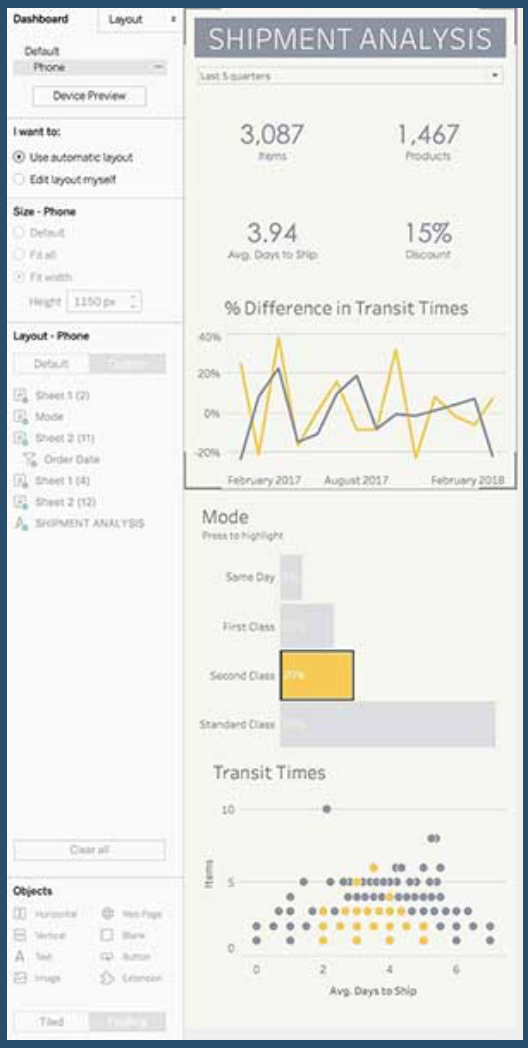
What's more, Tableau maps are technically scatter plots with points at the combination of each latitude-longitude pair and an image of a map in the background. This unlocks even more applications including the ability to map anything – even if it's not related to geography. This post will use a map of my top 10 favorite barbecue restaurants to share three ways to take your Tableau maps to the next level. Tips include a formatting trick, instructions for how to unlock additional map styles, and how to create a dual-axis map using a combination of generated and custom coordinates.

Go To Blog

57) Tips for creating mobile dashboards with automatic layouts By Bridget Winds Cogley

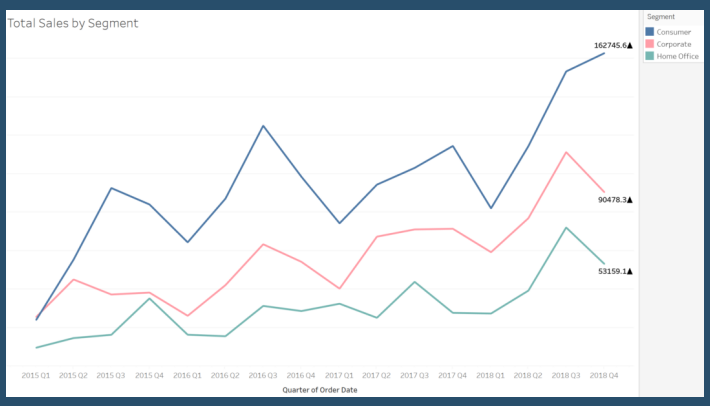
Recently, Tableau introduced a faster way to mobilize your dashboards to users on their phone with the automatic mobile layouts feature. Now every new dashboard includes a mobile layout. Besides automatically appearing, the new smart technology builds with you, so feel free to focus on the desktop while it works behind you. As long as the setting is set to automatic, it continuously updates everything you add, remove, or change on the dashboard.

Tableau's smart layout follows known best practices, reading from left to right to help our dashboards flow nicely on the phone. Each object on our dashboard will build down for mobile. If I keep this in mind while I design, I can make my transition from desktop to phone quite smooth.



Go To Blog

58) Quick Tableau Tip – How do you add '+/-' OR '▲/▼' to labels? By Sara Hamdoun

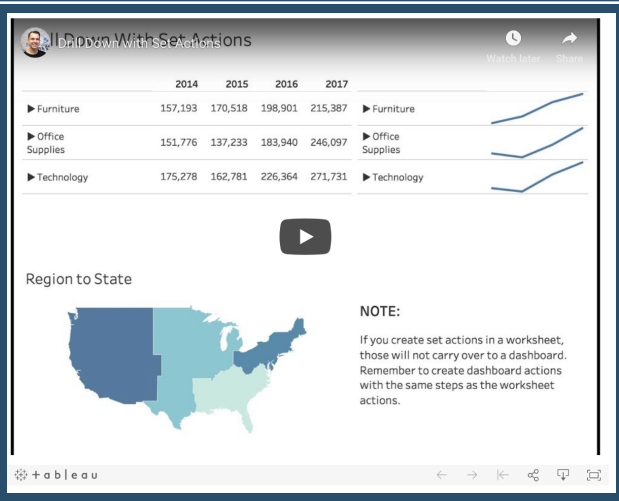


This is a simple yet cool tip when indicating whether a number is positive or negative. For this example, I will use the Sample – EU Superstore data set to analyse the total number of sales sold in each segment during each quarter.

Go To Blog

59) Drill Down With Set Actions
By Andy Kriebel

In this week's tip, I take you through how to set up basic drill down view using set actions. In the workbook below, I've included two additional views: sparklines and a region to state map.



Go To Blog

60) How to Make Unit Histograms / Wilkinson Dot Plots
By Ryan Sleeper

Unit histograms, or Wilkinson dot plots, show distributions of individual data points instead of bucketing them into bins like traditional histograms. My friend and Tableau Zen Master Hall of Famer, Steve Wexler, recently suggested this as an alternative on one of my visualizations, and I liked the idea so much that I wanted to show you how to build it in Tableau.

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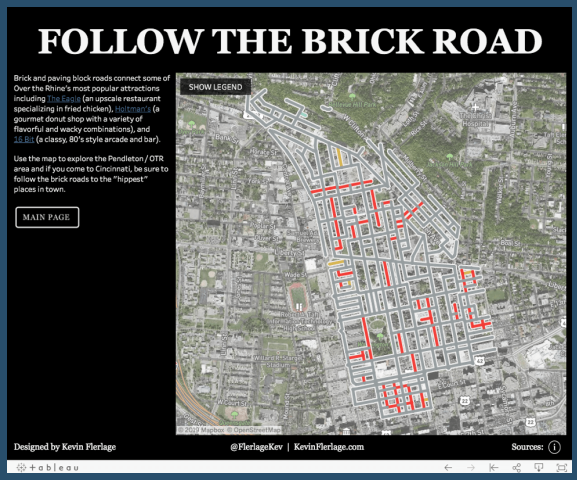
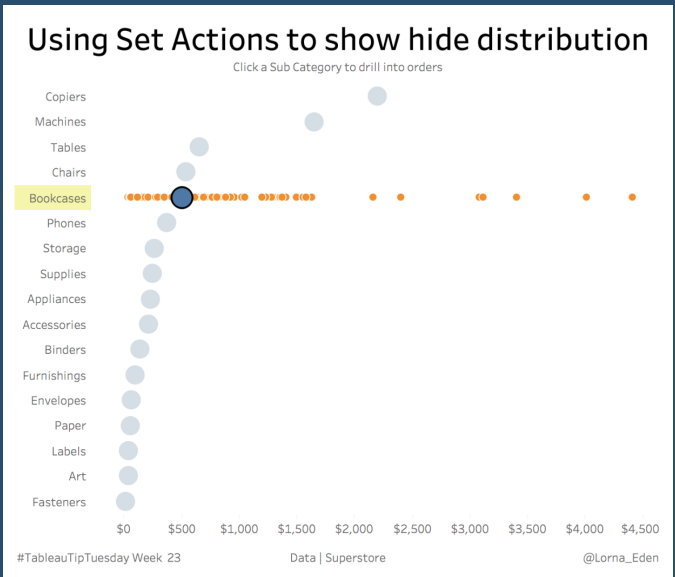
61) Overcoming the vector map learning curve
By Kevin Flerlage

When Tableau emailed asking me to build a viz for their website using the new vector tile mapping features in the 2019.2 beta, I was overcome with excitement—but also nerves. You see, the window to provide the viz was small, and although I've learned a ton in my short history of using Tableau, my maps have historically been simple, choropleth (AKA filled) maps. I've done next to nothing fancy with them. But the opportunity to have a viz published on Tableau's website was not one I'd let go by the wayside, regardless of the challenge that was ahead of me.



Go To Blog

62) Using Set Actions to Show/Hide Distribution
By Lorna Brown



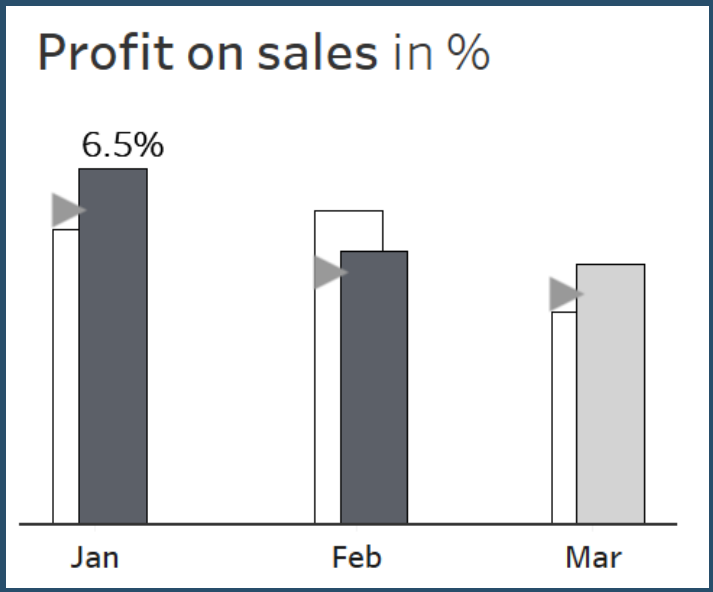
This week, I wanted to take a look at Set Actions again. I used Lindsey Poulters examples to help with this tip.

So you want to show the distribution of your order sales per sub category. By using set actions that's exactly what you can do.

Go To Blog

63) How to Build an Overlapping Bar Chart in Tableau
By Jeffrey Shaffer

There continues to be strong interest in my recent visualization, **Bar Hopping: Theme and Variations on a Bar Chart**. This week on LinkedIn, **Steve Adams saw the post and asked about building another variation of a bar chart in Tableau**. He was struggling with trying to reproduce overlapping bars. Normally, I would suggest we avoid these types of visualizations. Overlapping bars can make the comparisons harder to see and a bar with a target line would be a much better choice. However, this visualization is apparently a requirement to be compliant with the International Business Communication Standards (IBCS), so it is necessary for Steve to be able to reproduce this in Tableau.



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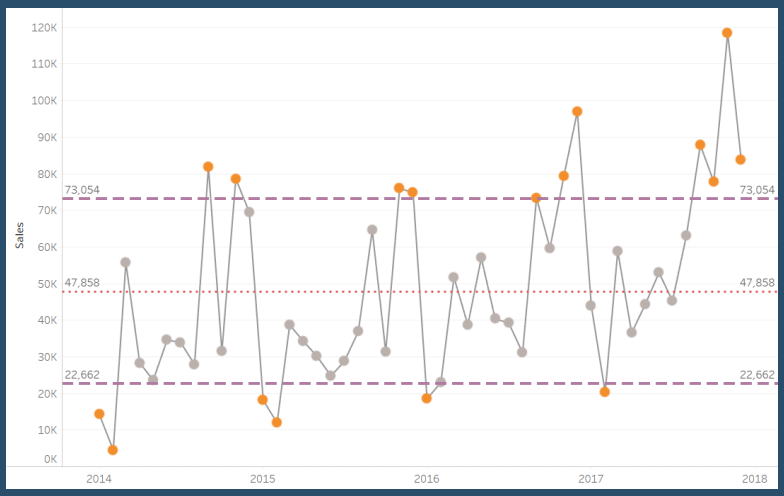
64) Pimp your Tableau Control Charts
By Chris Dickson

If you are here it is because you either already know how to create a Control Chart in Tableau or have followed from my previous blog on that subject and now want to find out how to take your Control Chart to the next level.



In this post I will show you how to use a calculated set of control limits to highlight outliers, also how to give your end users a level of control over the extent of the control limits applied. If you don't know how to create your calculated control limits please check out my earlier blog post - Control Charts in Tableau.

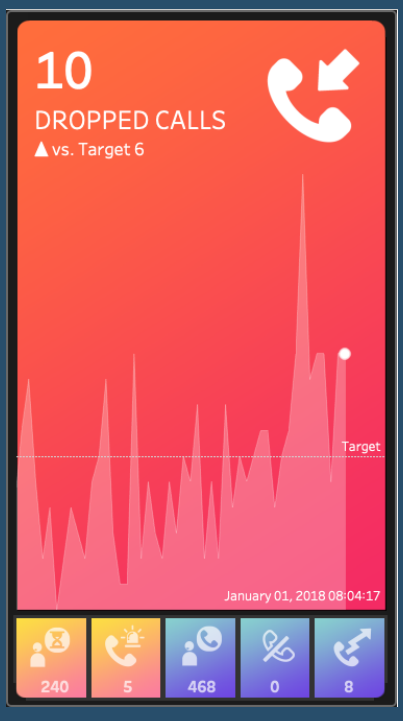
To follow the rest of this blog you will need to have created your Control Chart with calculated fields rather than drag and drop from the Analytics Pane - if not please follow my previous blog post on how to do this.

Go To Blog

65) Feeding the screen-time beast with shifting mobile metrics
By Anya A'Hearn

There are a lot of helpful hints on modifying desktop dashboards into mobile ones. They tend to focus on altering the layout to be tall and being mindful of finger-based interactions. I feel they forget one critical aspect - **users don't actually want to look at dashboards on a mobile device**. Now with that blasphemous statement out of the way, let's get on to what users on mobile do want, an analytics app that serves up relevant content that is engaging, useful, and quick to digest on the go.

I seem to be in a mood about making the traditional KPI dashboard a bit more modern as well as increase the value to the end user by aiding the understanding of what is critical. If you haven't already checked out the post on lighting, please do. It focused on lighting effects to draw the users eye to what is critical based on the impact of a KPI's deviation from a target. In this post, we play with a KPI's position on a "mobile app" as another method to assist the user in focusing on what is important now!



Go To Blog

66) Advance with Assist: Filling in Null Records Without Filtering By Dustin Wyers

Question: I'm using a table calculation comparing the same month last year, and my view shows blanks due to the date range I have applied. Is there a way to fill in the blanks correctly?

I've duplicated the user's view somewhat using Superstore data. You can see that I've filtered to 2017 and 2018 in the view and applied a table calculation for 12 months prior:

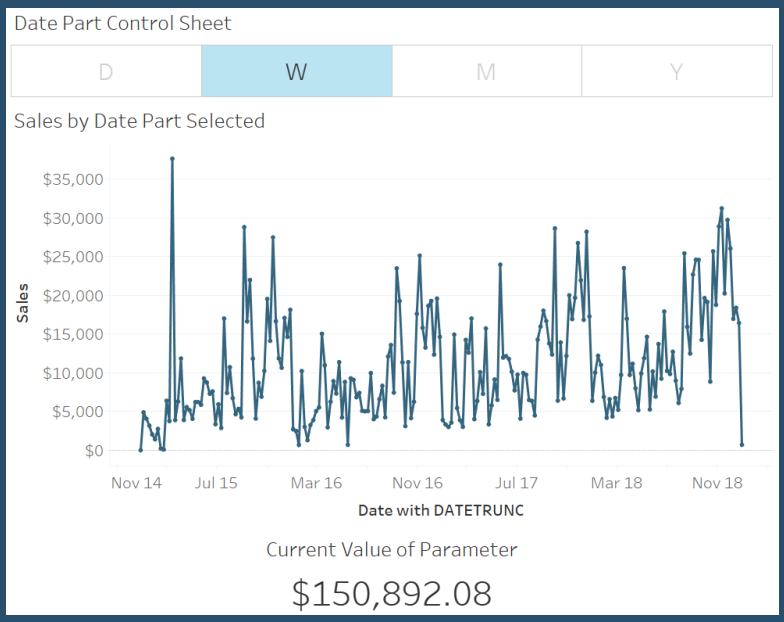
The goal is to get all the months filled in, as we know our data goes back to 2015. The key issue with this is that we've "filtered" out years prior to 2017. We need to keep that data in the view but not display it. That's where the **HIDE** functionality comes into play for us. Using a calculation, we can create a calculated field that keeps our desired view intact, as well as the data we need for the table calculation.

Go To Blog

67) 3 Creative Ways to Use Parameter Actions By Ryan Sleeper

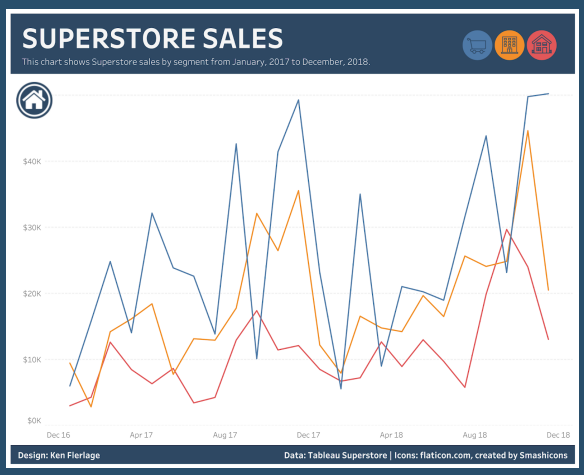
I have always described Tableau parameters as a Swiss Army knife due to their infinite applications. In case you are not familiar, Tableau parameters are user-generated values that allow you and your audience to choose the inputs of calculated fields. You, as the author, code the allowable values once, but then it's up to the user which value is selected.

This unlocks a higher level of flexibility in Tableau that allows users to manipulate analyses on the fly by using a "parameter control" to change the values populating calculated fields.



Go To Blog

68) 8 Alternatives to Default Legends By Ken Flerlage



Integrated Text
Custom Image
Put the Legend in a Tooltip
Custom Shape Legend
Custom Text Legend
Custom Picture Legend
Hidden Legend
Related Chart

Go To Blog

69) Driving Set Actions with a Fake Filter By Grant Eisenmenger

Question: How do I get a filter to also drive a set action in Tableau?

Short answer: You can't.

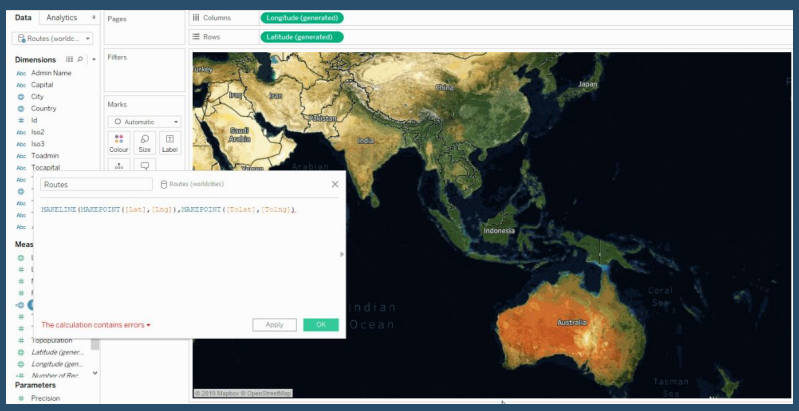
Slightly longer answer: You can if you fake it.

Longest answer: Read the blog below!

I got this question from my coworker on our EU team, Stefanie, who was looking to set up a multiselect filter that could also drive a set action in another portion of a client's dashboard. I was traveling back to Oklahoma after a week of training, so I thought I would give it a go.

Go To Blog

70) Making geospatial analysis easy with MakePoint and MakeLine
By *Kent Marten*



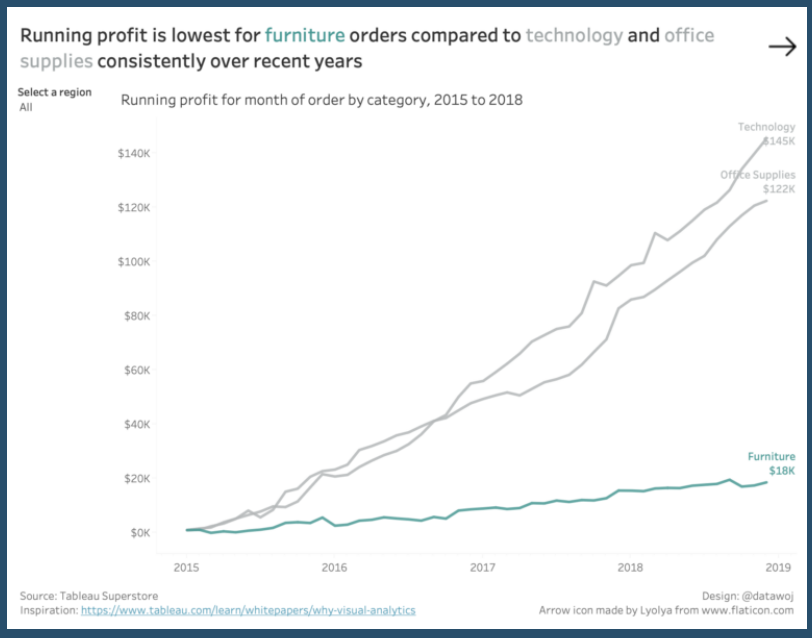
Location data can come in many forms and formats, but one of the most common formats is in separate fields containing latitude and longitude values. This data might reside in an Excel file, CSV, or any other table of data. These values could represent anything—the position of a physical location, object, Wi-Fi hotspot, wildlife, or literally anything else on the planet.

For people trying to understand their location data and to see spatial patterns, Tableau is adding two spatial functions that will make analyzing location data easier than ever. The spatial functions are called **MakePoint** and **MakeLine**. While their names are self-explanatory, permit me a few paragraphs to showcase what is now possible with maps in Tableau.

Go To Blog

71) Visually analysing the answers to why?
By Colin Wojtowycz

I recently read a Tableau white paper on visual analytics, which stated that data visualisation answers the 'what' questions, whereas visual analytics answers the 'why' questions. This inspired me to create my own visual analytics visualisation based upon Tableau Superstore data and the Whitepaper example. This was also a great chance to try out a new feature called dashboard navigation buttons.

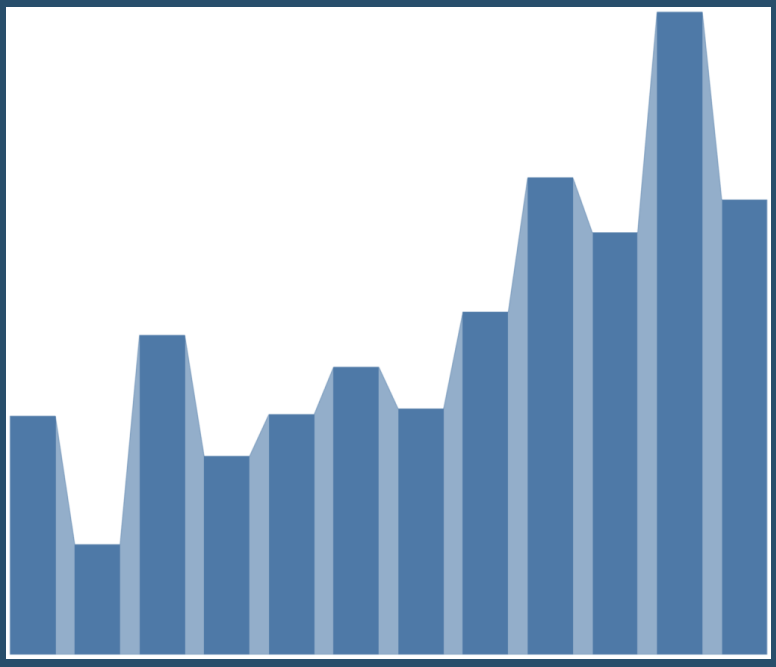


For example in my visualisation, sales by category shows furniture sales are generating low running profits. But why is is this? Filtering by region shows this is a problem across the product range.

Looking at sub-category shows us that tables are generating a low profit despite high sales.

Go To Blog

72) Tableau QT: Connected Bar Charts By Toan Hoang



This is a Quick Tip on how to build a Connected Bar Charts in Tableau, so less reading and more jumping in. We are going to spend 5 minutes or less building our Connected Bar Chart in Tableau. I saw this at a session with Klaus Schulte (https://vizjockey.com) and Ludovic Tavernier (https://greatified.com) Tableau Conference in Berlin 2019 and thought I had to see if I could figure it out? I always try to work things out myself before looking at how others have solved the same problem; sometimes we approach the problem in the same ways, and sometimes, completely differently, it is all part of the fun. I highly recommend you checking out Klaus' and Ludovico's blogs and following them on Tableau Public and Twitter.

Go To Blog

73) How to Drill into a Single Row of a Text Table By Ryan Sleeper

Have you ever wanted to drill into a single row of a text table in Tableau? Tableau has some nice hierarchy options that allow you to drill down and back up to get varying levels of detail for whatever you are analyzing, but the drilldowns are all or nothing. So, by default, if you wanted to click on a Category dimension member to reveal each category's respective sub-categories, all the categories will display their sub-categories.

		Sales	Profit Ratio	Discount
Furniture		$742,000	2%	17%
Office Supplies	Appliances	$107,532	17%	17%
	Art	$27,119	24%	7%
	Binders	$203,413	15%	37%
	Envelopes	$16,476	42%	8%
	Fasteners	$3,024	31%	8%
	Labels	$12,486	44%	7%
	Paper	$78,479	43%	7%
	Storage	$223,844	10%	7%
	Supplies	$46,674	-3%	8%
Technology		$836,154	17%	13%

This default behavior becomes problematic with text tables because the number of rows gets inflated with data irrelevant to your analysis. This post will show you the three-step solution for drilling into a single dimension member to reveal underlying detail in Tableau.

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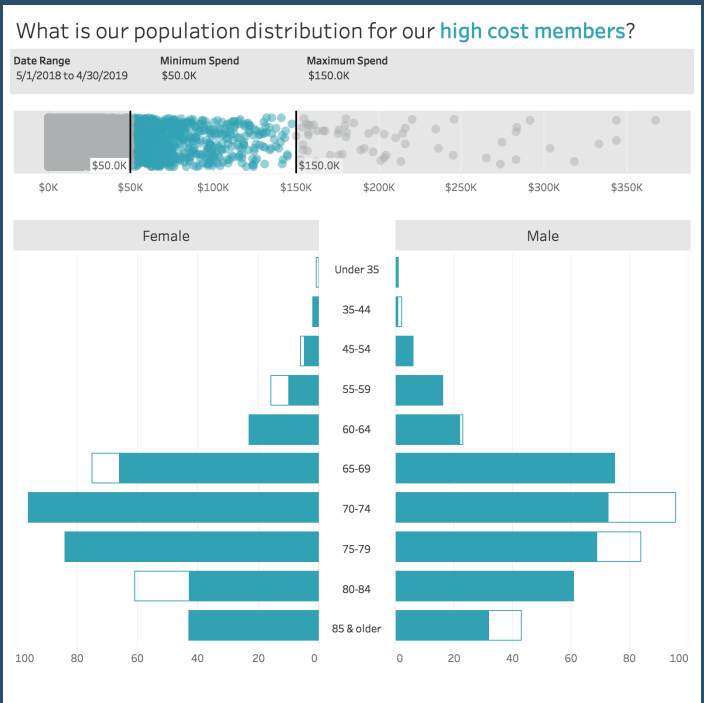
74) How to make your population pyramids POP!
By Sean Miller



This past week, I was working with client and they were literally describing a population pyramid. So, being the inquisitive and observant guy that I am, I said, "It sounds like you want a population pyramid" To which they replied, "well, every time we have this discussion we tend to steer away from the pyramids because for us, because its really important for us to see the differences in gender across each age group. And because the bars of a pyramid go in opposite directions, it makes it extremely difficult to see those differences."

Their response excited me for a couple reasons:

These people have had deep conversations about data viz and have a solid idea of what they are after and the insights that are important to them

I love a good challenge

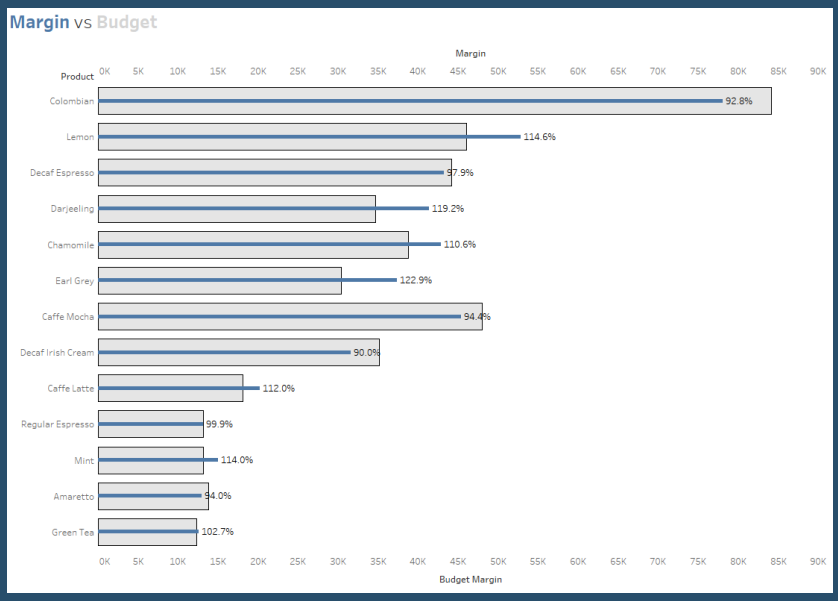
Go To Blog

75) How to label the longest of a Dual Axis Bar Chart?
By Tom Pilgrem

I was teaching dual-axis charts to a class recently, and someone asked me, "How can I label the longer bar?". I wasn't too sure initially, but knew it would be possible, as most things in Tableau are. When I had a free minute I went away and thought about it and came up with this solution. And now I'll share it with you!

The Issue

Here I have a nice bar-in-bar chart.



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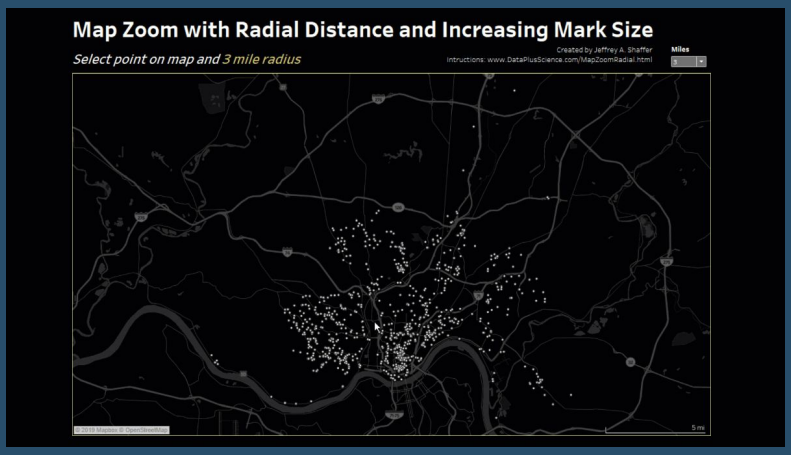
76) Map Zoom with Radial Distance and Increasing Mark Size By Jeffrey Shaffer



Back in October 2018, I **posted this map highlighter** on Twitter. A month later, **Sarah Battersby** posted **this on Twitter** and suggested adding a radial function to it. In this blog post, I will demonstrate how to do this and more. Specifically, how to create a map that will zoom in, filter and show a radial distance, control the radial distance, format the radial distance and the points and increase the mark size as it zooms in. This combines several techniques from many different people as well as a few tips and tricks.

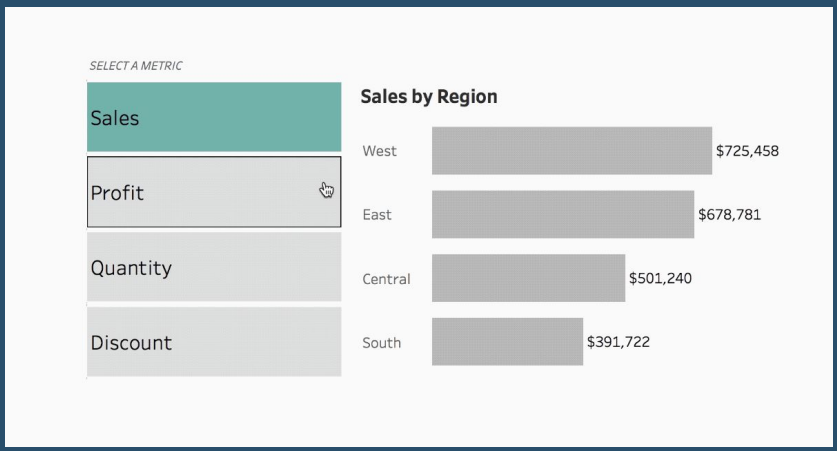
In my original version, I leveraged Tableau Set Actions to move a shape around the map based on which point was in the set on a hover action. This is pretty straight forward. Using a dual-axis, the center point is enlarged and transparent to show a highlight circle around the point. Using the Radial Map zoom that is built into Tableau, the size of the shape can be set to a certain radius, for example 3 miles.

Go To Blog

77) How to Switch Metrics (or Dimensions) Using Set Actions By Lindsey Poulter

I previously wrote about how to change dimensions using set actions. However, I have since found a better, easier way that can work for metrics OR dimensions. Previously, you had to unselect a value before selecting the next. This method does not require that!

This can be extended even further to add text for additional insight or information. I then used transparent worksheets to add a trend line of each metric to create a custom button for each metric:



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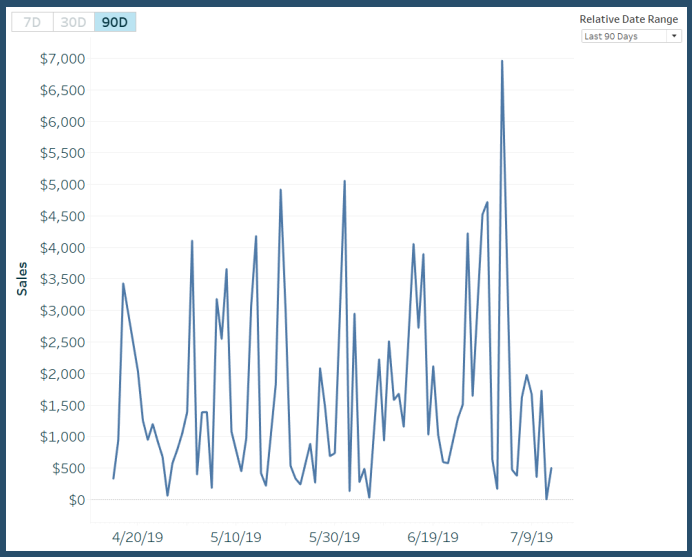
78) How to Make Better Relative Date Filters
By Ryan Sleeper



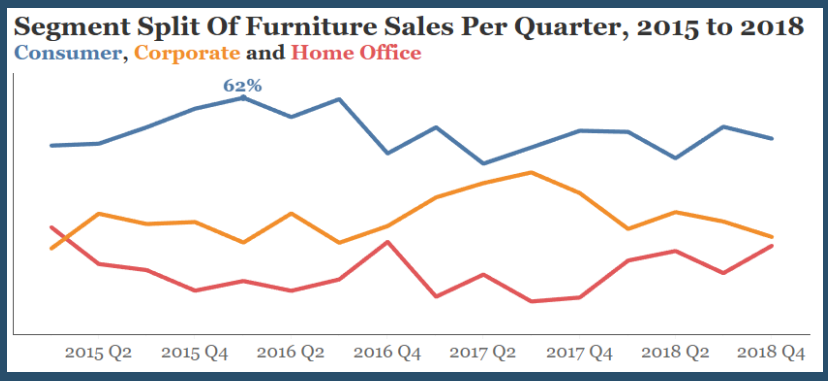
Have you ever needed to filter to the last 7 days, 30 days, 90 days, etcetera in Tableau? You've likely found that it's easy to add a "relative" date filter by dragging a dimension with a data type of Date to the Filters Shelf, choosing Relative Date, then showing the filter to access the date range options. These default relative date filters are okay, but they have limitations including: (1) limited and static anchoring options, (2) no formatting options, and (3) they require manual range selection.

This post will show you how to make relative date filters in Tableau that overcome all the limitations of the default relative date filters. You will be able to set up any ranges you want and have one-click access to change date ranges on the fly.

Go To Blog

79) Tidying Up Chart Labels With Secret Reference Lines
By Mark Edwards

This post walks through how to create space in your viz without having to fix an axis. There are examples for handling labels both on the edges of both the width and the height of a chart. It is targeted at users slightly beyond beginner who are comfortable with the range of formatting elements in Tableau. There are further possible extensions beyond this, but they are held back for a further future post.



The guidance here amalgamates a few things I've learned from participating in Workout Wednesday and watching Andy Kriebel's Tableau Tip Tuesday series on YouTube. I needed to use this solution to get myself out of a formatting hole recently, and now that I've adopted it I find myself doing so regularly.

So often we want to find a way to label values or series on our charts, but Tableau's defaults can constrain their visibility. This is a particular problem if our data is dynamic and we want to add labels but have limited control over where they might appear. What could have been really clear charts now appear to be cluttered. So, how can we go from this to this?

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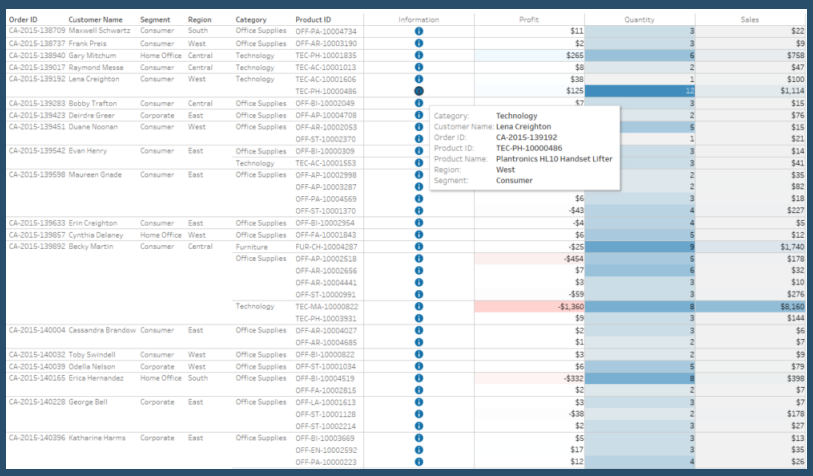
80) Highlight table with info icons
By Hanna Nykowska



Order ID	Customer Name	Segment	Region	Category	Product ID	Information	Profit	Quantity	Sales
CA-2015-138709	Maxwell Schwartz	Consumer	South	Office Supplies	OFF-PA-10004734		$11	3	$22
CA-2015-138737	Frank Preis	Consumer	West	Office Supplies	OFF-AR-10003190		$2	3	$9
CA-2015-138940	Gary Mitchum	Home Office	Central	Technology	TEC-PH-10001835		$266	6	$758
CA-2015-139017	Raymond Messe	Consumer	Central	Technology	TEC-AC-10001013		$8	2	$47
CA-2015-139192	Lena Creighton	Consumer	West	Technology	TEC-AC-10001606		$38	1	$100
					TEC-PH-10000486		$125	12	$1,114
CA-2015-139283	Bobby Trafton	Consumer	Central	Office Supplies	OFF-BI-10002049		$7	3	$15
CA-2015-139423	Deirdre Greer	Corporate	East	Office Supplies	OFF-AP-10004708			2	$76
CA-2015-139451	Duane Noonan	Consumer	West	Office Supplies	OFF-AR-10002053			5	$15
					OFF-ST-10002370			1	$21
CA-2015-139542	Evan Henry	Consumer	East	Office Supplies	OFF-BI-10000309			3	$14
				Technology	TEC-AC-10001553			3	$41
CA-2015-139598	Maureen Gnade	Consumer	East	Office Supplies	OFF-AP-10002998			2	$35
					OFF-AP-10003287			2	$82
					OFF-PA-10004569		$6	3	$18
					OFF-ST-10001370		-$43	4	$227
CA-2015-139633	Erin Creighton	Consumer	East	Office Supplies	OFF-BI-10002954		-$4	4	$5
CA-2015-139857	Cynthia Delaney	Home Office	West	Office Supplies	OFF-FA-10001843		$6	5	$12
CA-2015-139892	Becky Martin	Consumer	Central	Furniture	FUR-CH-10004287		-$25	9	$1,740
				Office Supplies	OFF-AP-10002618		-$454	5	$178
					OFF-AR-10002656		$7	6	$32
					OFF-AR-10004441		$3	3	$10
					OFF-ST-10000991		-$59	3	$276
				Technology	TEC-MA-10000822		-$1,360	8	$8,160
					TEC-PH-10003931		$9	3	$144
CA-2015-140004	Cassandra Brandow	Consumer	East	Office Supplies	OFF-AR-10004027		$2	3	$6
					OFF-AR-10004685		$1	2	$7
CA-2015-140032	Toby Swindell	Consumer	West	Office Supplies	OFF-BI-10000822		$3	2	$9
CA-2015-140039	Odella Nelson	Corporate	West	Office Supplies	OFF-ST-10001034		$6	5	$79
CA-2015-140165	Erica Hernandez	Home Office	South	Office Supplies	OFF-BI-10004519		-$332	8	$398
					OFF-FA-10002815		$2	2	$7
CA-2015-140228	George Bell	Corporate	East	Office Supplies	OFF-LA-10001613		$3	3	$7
					OFF-ST-10001128		-$38	2	$178
					OFF-ST-10002214		$2	3	$27
CA-2015-140396	Katharine Harms	Corporate	East	Office Supplies	OFF-BI-10003669		$5	3	$13
					OFF-EN-10002592		$17	3	$35
					OFF-PA-10000223		$12	4	$26

Category: Technology
Customer Name: Lena Creighton
Order ID: CA-2015-139192
Product ID: TEC-PH-10000486
Product Name: Plantronics HL10 Handset Lifter
Region: West
Segment: Consumer

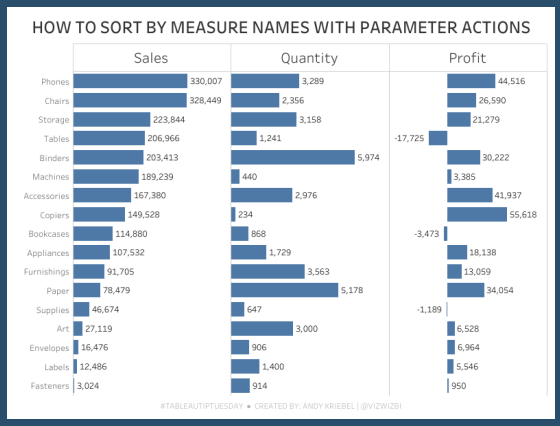
Let's say you want to give your audience detailed data in form of a table. At the same time, you want to add colour but also and information button, which makes it obvious that you can hover over it for more details. In short, you want something like this:

To have the names of the fields present in the table, you'll need to do a bit of trick, but I'll walk you through it step-by-step. In this example, I'm using Sample Superstore available with Tableau Desktop.

Go To Blog

81) How to Sort by Measure Names with Parameter Actions
By Andy Kriebel

Parameter actions are as powerful feature in Tableau. In this tip, I show you how you can update a parameter with the Measure Names field. In that past, you could never use Measure Names in a calculation, but parameters are now an exception because of parameter actions.



Go To Blog

82) Dynamic Number Formatting
By Rody Zacovich

```
//Determine if the value is negative
IF SUM([Value]) < 0 THEN '-' ELSE '' END
+
'$' //Dolar Symbol
+
//Get Int Amount by Dividing the Value by its' Base 1000 Value
STR(INT(ROUND(ABS(SUM([Value]))/POWER(1000,INT(LOG(  ROUND(ABS(SUM([Value]))/10,0)*10 ,1000))),1)))
+
//Determine if you need to show a decimal
//If the Modulo is zero, we just want to show blank (Ex 159.0K = 159K)
//Else we want to show the decimal value (Ex 159.4K)
IF (ROUND(ABS(SUM([Value]))/POWER(1000,INT(LOG(ABS(SUM([Value])),1000))),1)*10)%10 = 0 THEN ''
ELSE '.' + STR((ROUND(ABS(SUM([Value]))/POWER(1000,INT(LOG(ABS(SUM([Value])),1000))),1)*10)%10)
END
```

Recently I saw some examples of Dynamic Number Formatting on Twitter, so I though I'd share a solution I came up with a few years ago.

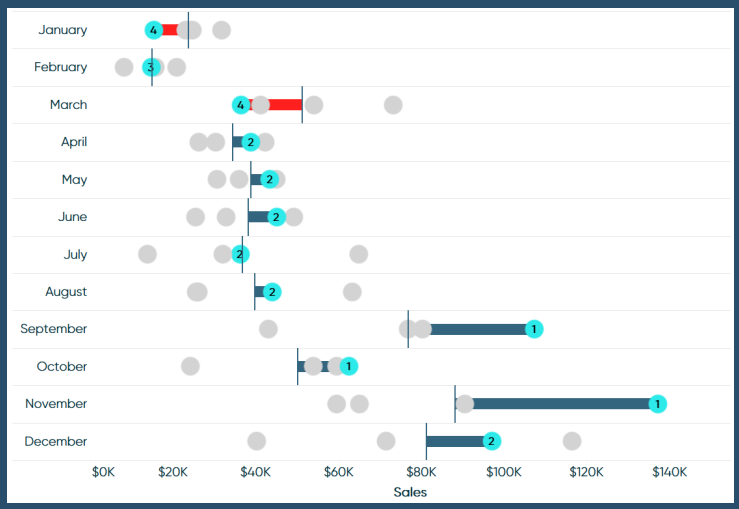
This solution uses some simple math to determine the base 10 of a number. Using that base 10 we can determine how to round it, and which numeric symbol it should have. Solution also removes 0 decimals, and handles negatives.

Copy/Paste this calc and change [Value] to the field you want to have dynamically formatted. NOTE* we are aggregating in the calc, so if you want to dynamically display a value that is MAX/MIN/AVG/ETC, change the aggregation in the formula.

Go To Blog

83) Introducing Leapfrog Charts in Tableau
By Ryan Sleeper

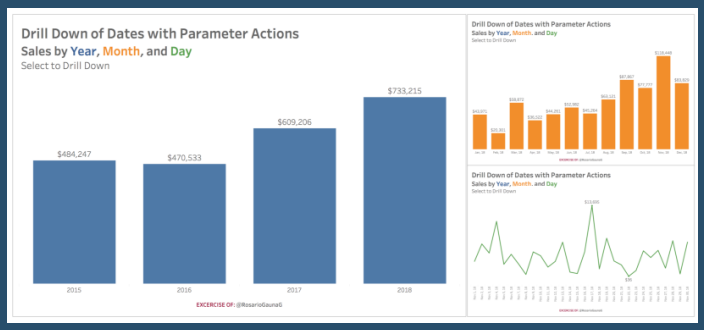
Leapfrog charts are a variation on a minimalist dot plot and can be used when the primary objective is to show the relative performance of a specific dimension member to a comparison point or points – or what it would take for that dimension member to 'leapfrog' over another, if you will. The dot plot is combined with a Gantt chart to illustrate the difference between a selected dimension member and a specific target or the average, median, minimum, or maximum for a measure across the business.



This chart was developed in conjunction with Playfair Data Information Designer, Jason Penrod. Keep reading to see how the chart looks and learn how to make it!

Go To Blog

84) Drill Down of Date with Parameter Actions
By Rosario Gauna



With Tableau 2019.2 the interactions with a visualization became more powerful, since the new functionality of Parameter Actions allows users to modify the value of a parameter through direct interaction with a visualization, such as clicking or selecting a "mark".

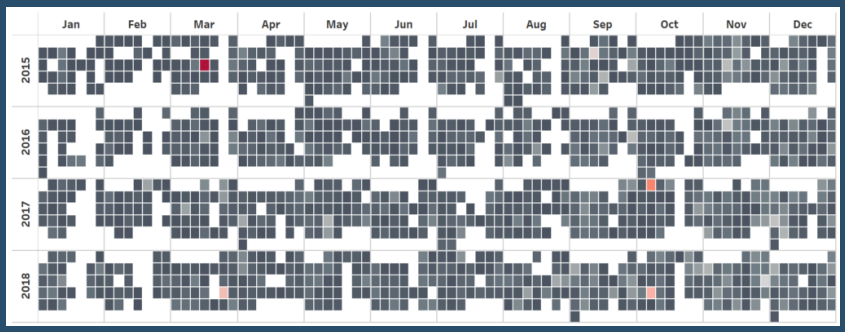
Go To Blog

85) How to Make Connected Scatter Plots in Tableau
By Ryan Sleeper

As I mentioned in the post, 3 Ways to Make Stunning Scatter Plots, this chart type is already my third favorite for its innate ability to visualize many records at once, reveal correlations and outliers, and create a natural four-quadrant segmentation. One weakness of scatter plots, however, is that they don't clearly show how a dimension member's position is changing over time. Fortunately, Tableau's flexibility allows us to go way beyond the defaults and Show Me options, and this in case, will help us literally connect the dots on a scatter plot.

Go To Blog

86) Tableau QT: Calendar Table
By Toan Hoang

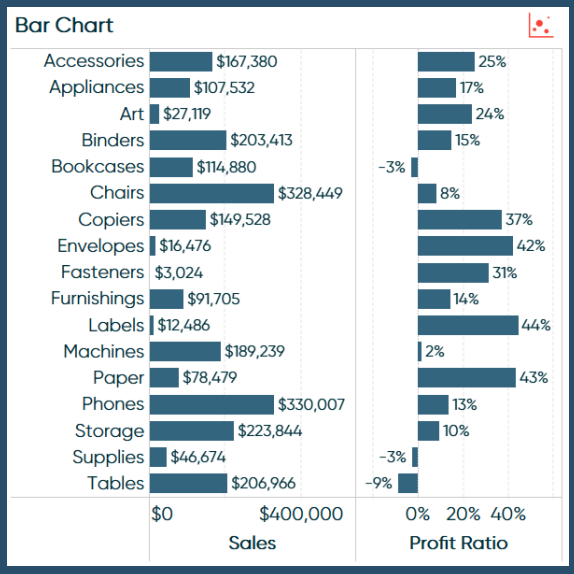


This is a Quick Tip on how to build Calendar Table in Tableau, so less reading and more jumping in. We are going to spend 5 minutes or less building our Calendar Table in Tableau.

Go To Blog

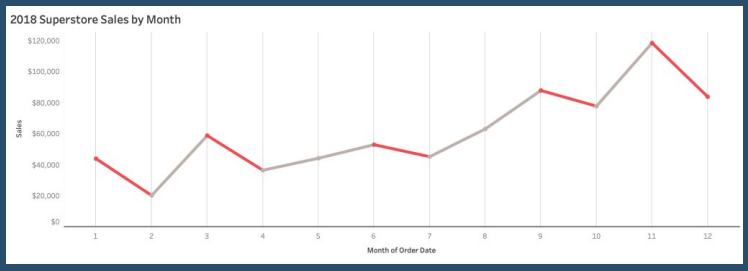
87) How to do Better Sheet Swapping
By Ryan Sleeper

I've shared before how to allow your audience to decide which chart type is being shown on a view. This is a well-known tactic known as 'sheet swapping' because you use parameters to control which sheet is being 'swapped' into the view. This approach is still valid and has been made better with the introduction of parameter actions but is relatively tedious to set up.



Go To Blog

88) Encoding Change in Tableau Line Charts
By Klaus Schulte



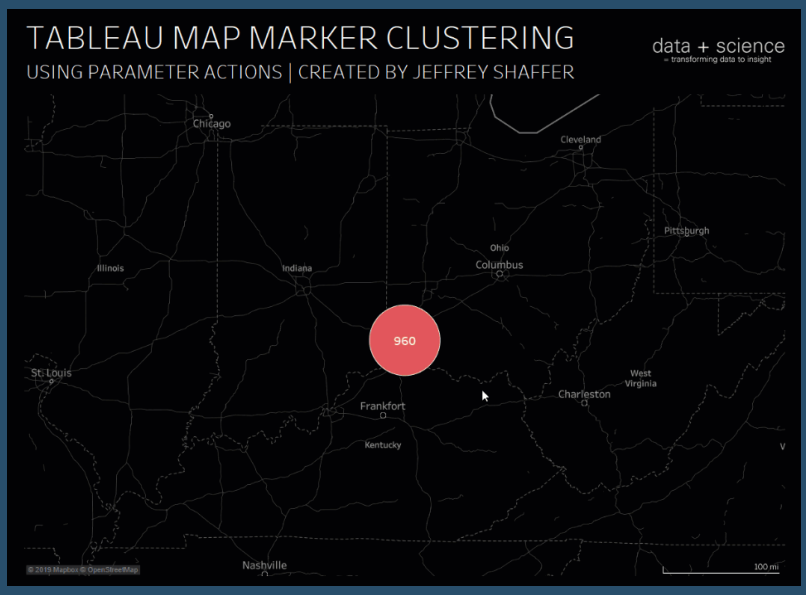
Ok, this is probably not a big thing, but I have been thinking about it for quite a while now: How can I encode change in line charts accurately?

Wait: Encoding change in line charts?

Change is of course already encoded in line charts. For example, when we look at Superstore sales by month we can see the change: when the line goes down, we have a negative change compared to the previous month and when the line goes up, we have a positive change.

Go To Blog

89) Map Marker Clustering Using Parameter Actions
By Jeffrey Shaffer

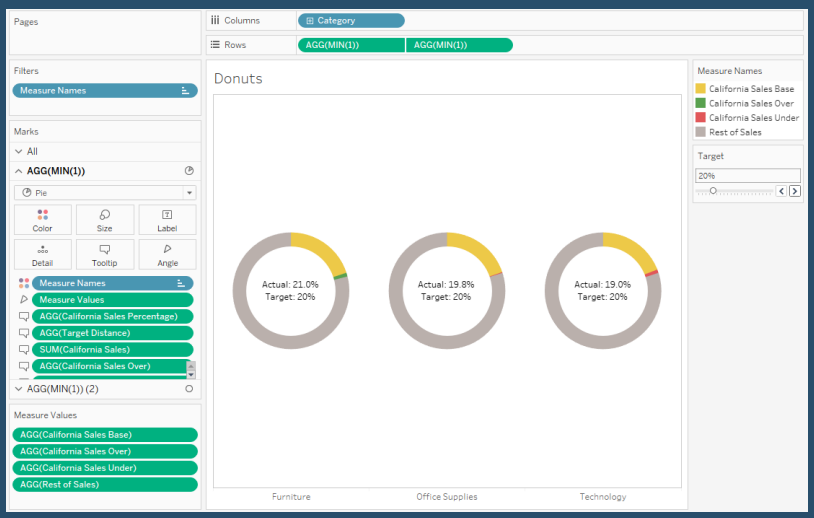


Last month I posted on how to create a **map zoom with a radial distance circle and increasing mark size**. In this blog post, I will demonstrate how to do marker clustering in Tableau using parameter actions. When plotting hundreds or thousands of points on a map, the map can get very cluttered. One technique that can be useful is clustering the points into one marker. The size of the marker can indicate the number of points in that area.

This technique requires a few calculations and a parameter action, but it is pretty straight forward. I will use the same dataset that I used in my previous post, without the extra fields. You can **download the dataset here** to follow along. This dataset has some three fields for some points in Cincinnati, Ohio. We will map these points using Latitude and Longitude in the dataset.

Go To Blog

90) Donut charts and dynamic reference banding
By Gwilym Lockwood



Donut charts aren't everybody's cup of tea, but I quite like them for showing a percentage against a total which has to be 100%. Things like the percentage of tickets answered within an hour, or an industrial test pass rate as a percentage, or an on time percentage.

The problem is that percentages often come with targets. If you're measuring a rate, you're probably measuring it to check that you're on target. For example, if you've got 19.8% of tickets being answered within an hour, you've probably also got a target of 15% or 20% or something, and you'd probably want to show that on your donut chart for context, like this:

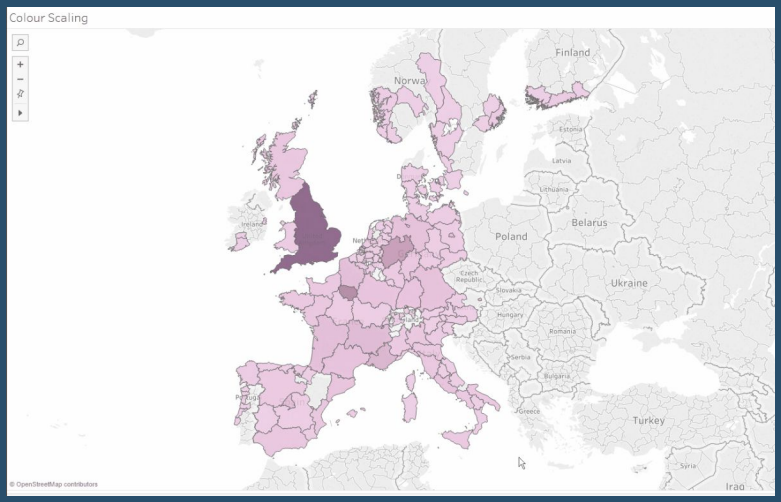
Go To Blog

91) Tableau QT: Thermometer Chart By Toan Hoang

This is a Quick Tip on how to build a Thermometer Chart in Tableau, so less reading and more jumping in. We are going to spend 5 minutes or less building our Thermometer Chart in Tableau.

Go To Blog

92) How to Colour Scale a Map Using Set Actions! By Louise Le



I thought my Best of DS11 blog would be my final blog post on the Data School website but no, I have one quick blog post left. Set Actions. They're new and exciting, right? Today at the Data School, Harry of DS11 taught us (and the coaches) set actions as he was assigned to teach the public this topic a few weeks ago. He has two blog posts on set actions which will delve much deeper than my blog post right now, check them out here and here. Andrew has also written one on proportional brushing here.

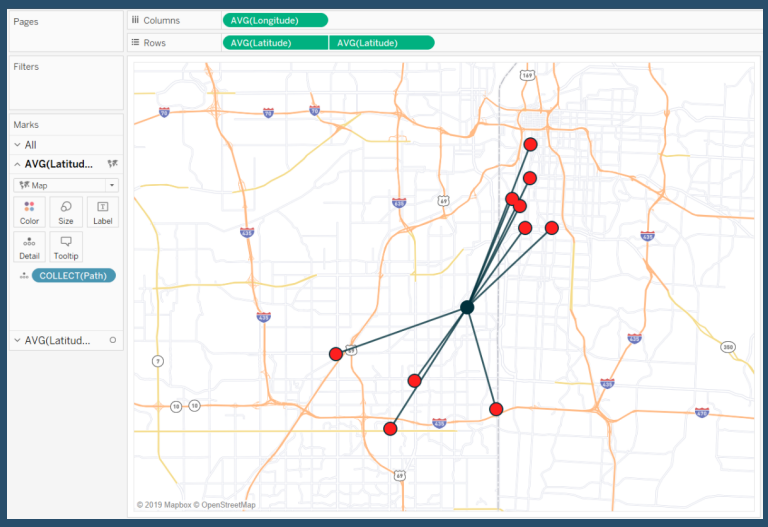
In this blog post, I will show you how to use set actions to change the colour scale of your filled maps depending on the locations you choose to lasso.

Go To Blog

93) How to Make Hub and Spoke Maps in Tableau
By Ryan Sleeper

Hub and spoke maps not only plot locations on a map, but they draw connecting lines between the origin and one or more destinations. This type of map can be used to visualize connecting flight routes, travel schedules, migration patterns – or in the following case – the path between our office and my ten favorite barbecue restaurants!

This type of map has become remarkably easy to create with the introduction of the MakePoint and MakeLine functions available as of Tableau 2019.2. I've shared before 3 Ways to Make Magnificent Maps, but Tableau keeps innovating, so I'm adding to the series.



Go To Blog

94) Advance with Assist: Nested IF Calculations in
By Dustin Wyers

Segment	Ship Mode	FLAG	
Consumer	First Class	NO FLAG	769
	Same Day	FLAG	317
	Second Class	NO FLAG	1,020
	Standard Class	NO FLAG	3,085
Corporate	First Class	NO FLAG	485
	Same Day	NO FLAG	114
	Second Class	NO FLAG	609
	Standard Class	NO FLAG	1,812
Home Office	First Class	NO FLAG	284
	Same Day	NO FLAG	112
	Second Class	NO FLAG	316
	Standard Class	NO FLAG	1,071

Logical calculations take on many forms, and each of us probably has habits that affect the way we write out calculations. This client's question has several possible solutions, but what we'll focus on in this blog is nested IF logical statements.

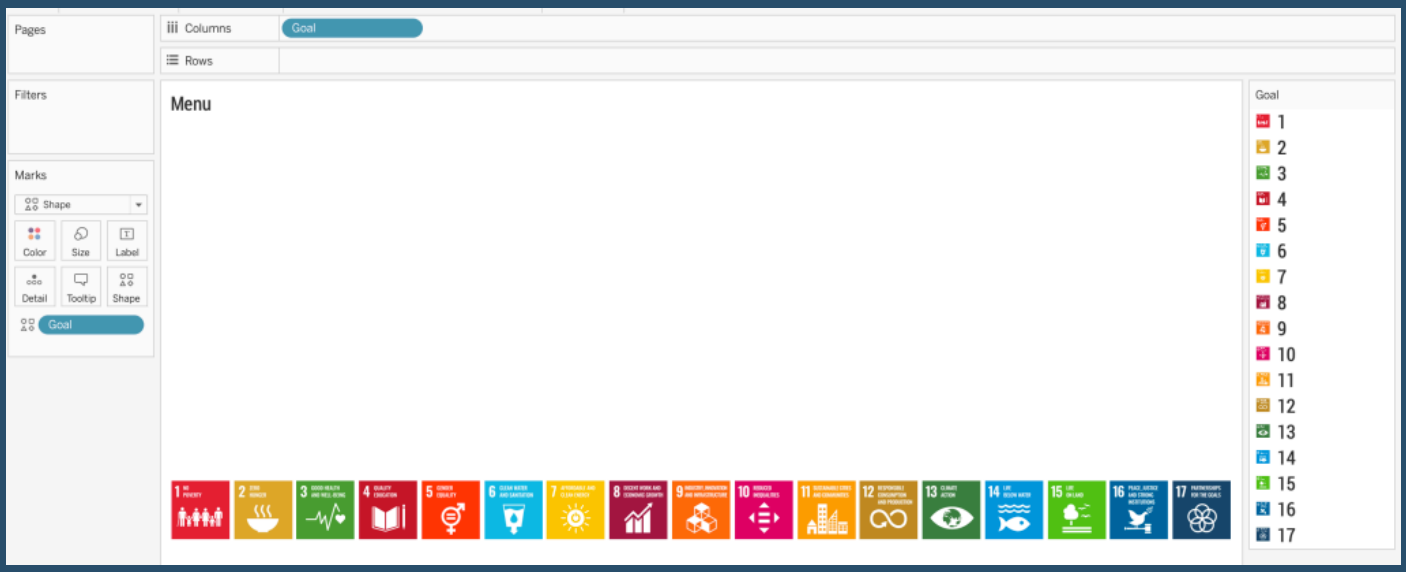
Go To Blog

95) Using Measure Names to Update a Parameter By Andy Kriebel

Before parameter actions, we've never been able to use Measure Names in a calculation. This week, I show you how to make a dynamic scatterplot and dynamic line chart by leveraging the power of parameter actions to pass the Measure Names field to a parameter, and thus a calculation.

Go To Blog

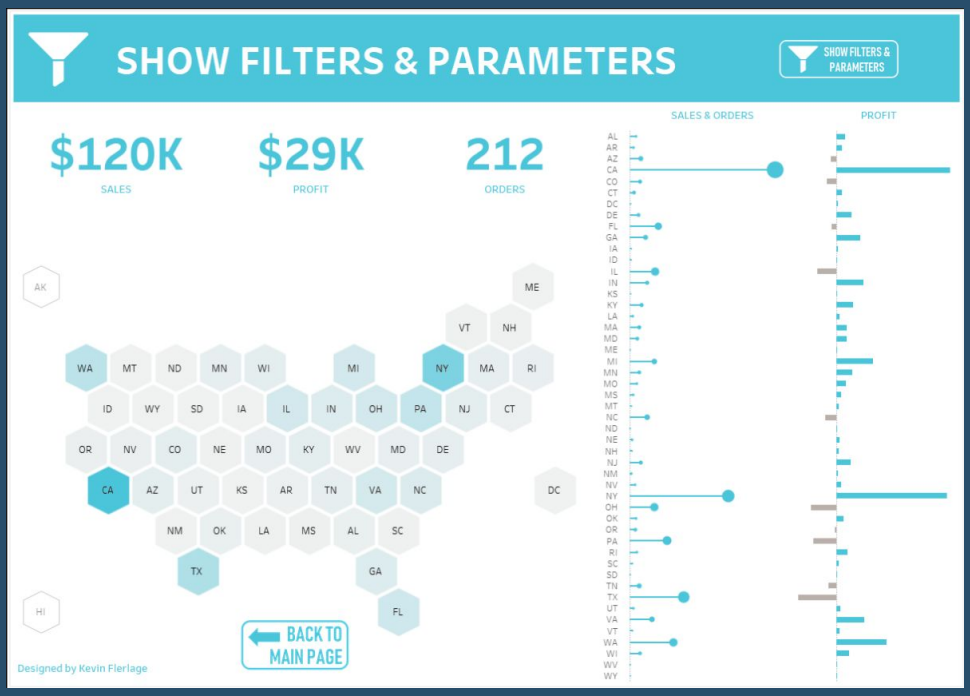
96) Tabbed Navigation With Parameter Actions By Rodrigo Calloni



For last week's #makeovermonday dataset, the challenge was to improve a visualization from the UN related to a survey for the Sustainable Development Goals (UN SDGs). I was very pleased by having accomplished the following outcome:

Go To Blog

97) Cases for Collapsible Containers
By Kevin Flerlage



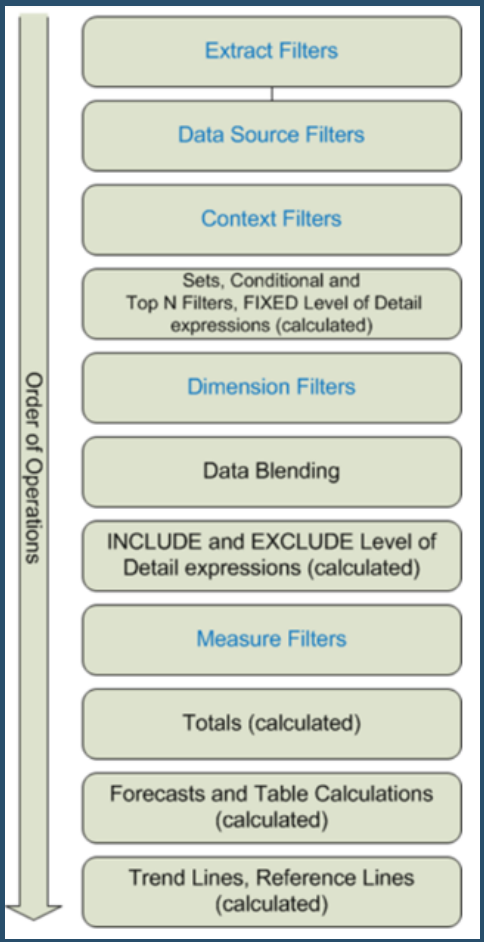
In May 2019, Tableau released version 2019.2. This version was chock-full of great new features including parameter actions and vector mapping. One feature that has not received nearly as much press is collapsible containers. In my opinion, collapsible containers have the potential to **completely change** the user experience and change the way we design dashboards.

Go To Blog

98) Removing values from quick filters using Order of Operations
By Nick Jastrzebski

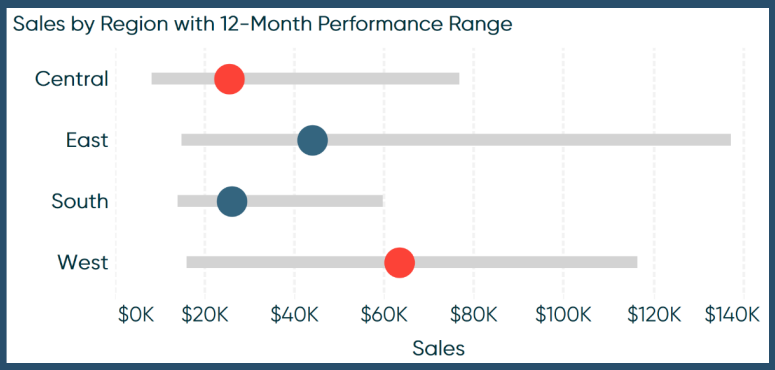
Sometimes you want to hide certain values from filters on your dashboards. There are a few tricks you can use to make this happen, all you need is a little knowledge of Tableau's Order of Operations.

To remove options from filter menus you need to add an extra layer to your filtering, using an earlier stage of the order of operations. Here are a few tricks to make this happen, and why they work.



Go To Blog

99) How to Make Ranged Dot Plots
By Ryan Sleeper



Ranged dot plots display not only a circle mark representing the current performance for a specific dimension member, but a full range of how that 'dot' has moved over time. You can also add even more context by coloring the dot and/or changing the mark type of the circle to up or down triangles, based on period over period performance.

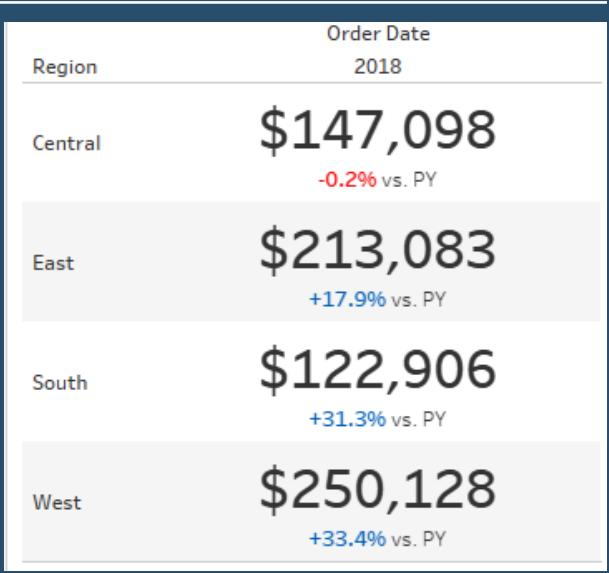
Both of these additions to a traditional dot plot help provide comparisons that paint a clearer picture of whether changes in performance are notable. This post shows you how to add a performance range for each dimension member represented in a dot plot.

Go To Blog

100) Style your KPIs – Displaying positive or negative change
By Joe Stokes

Using colour is one of the most powerful ways to bring attention to key details within a visualization. Using big numbers is a favourite within the business world and adding a colour to denote positive or negative change is a quick and easy way to quickly communicate the important information.

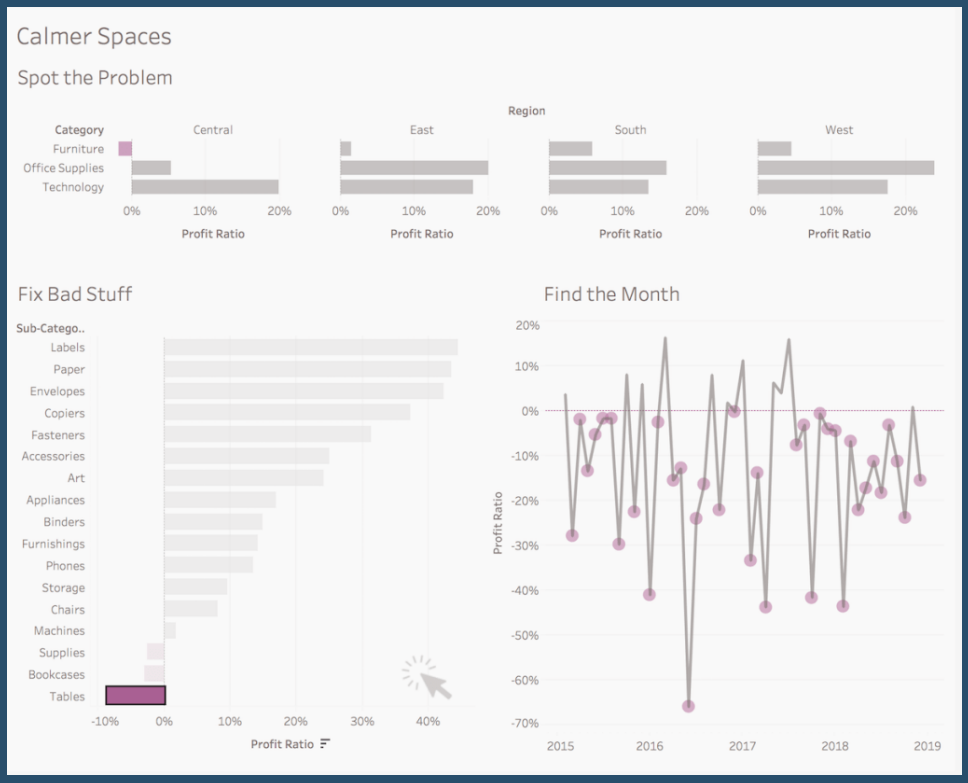
I'll show you a really quick and easy way to show two different colours depending on whether the change compared to a previous year (or whatever metric) is a positive or negative number.



Go To Blog

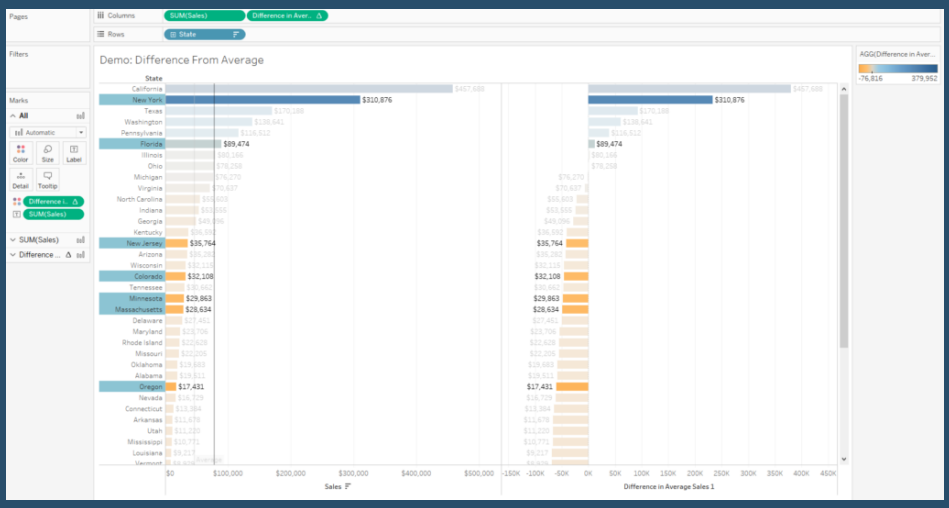
101) Designing Dashboards in the Age of Digital Distraction
By Bridget Winds Cogley

Somedays, I wonder when the internet became a massive park dedicated to billboards. Call me old, grumpy, or whatever else you must, but these bits and bytes have become far less hospitable.



Go To Blog

102) Difference From Average Set Action
By Georgie Ggrec

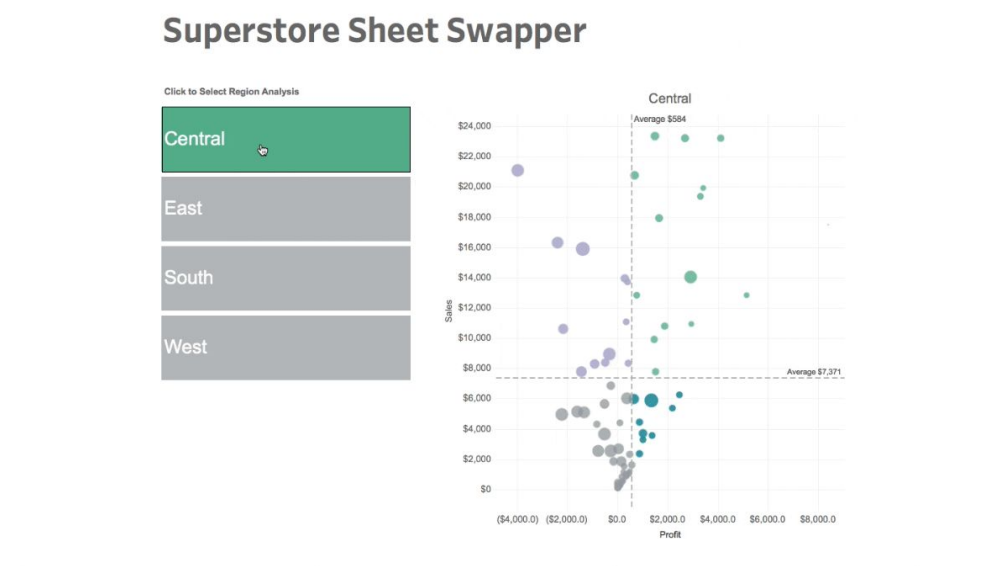


Set actions are a great way to add interactivity into your dashboard. I recently learnt how you could use a set action to show the difference from the average and thought this would be useful in a lot of visualisations.

Go To Blog

103) How To: Sheet Selector Using Set Actions in Tableau
By Matt Chambers

For some time now, I have been thinking about how to use Set Actions to create a sheet selector. In previous tutorials, I walked you through how to create sheet selectors using a join and level of detail calculations. Then, I saw a tutorial by Lindsey Poulter on how to dynamically switch metrics or dimensions, and I noticed a calculation that she had used:



Go To Blog

104) 5 Categories of Tableau Deliverables
By Toan Hoang

I have designed and delivered Tableau Solutions for a variety of clients, and while each client requirements differ, I generally fit them into 5 different categories; in this article, I will discuss the characteristics of each of the 5 categories, my main ideas and considerations.

Presentation and Print

Interactive Dashboards

Infographics

Data Extracts

Embedded Analytics

Go To Blog

105) Using LODs to Compare Max/Min Year Values
By Lindsay Betzendahl

May's ProjectHealthViz data set was from the OECD on tobacco consumption to bring awareness to smoking habits from many countries around the world. May 31st, according to the World Health Organization, is World No Tobacco Day.

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Australia		19.60			17.80			16.90			15.40			13.00			12.40	
Austria							23.20								24.30			
Belgium		24.10			23.70				20.50					18.90				
Brazil				17.60			15.70	15.60	14.80	14.30	14.10	13.40	12.10	11.30	8.70	7.20		
Canada		22.40		18.70		17.30		18.20	17.50	16.20	16.30	15.70	16.10	14.90	14.00	13.10	12.50	
Chile				33.00						29.80							24.50	
China (People's R..	29.70					27.90				26.50	26.20		25.50			24.70		
Colombia									17.10					16.20				
Costa Rica	20.80					17.70					15.40		14.50			13.40		
Czech Republic			24.10	27.20	25.40	24.30	23.40	24.00	21.80	23.80	22.80	21.70	22.90	22.20	22.30	18.20	19.60	
Denmark	30.50	29.50	28.00	28.00	26.00	26.00	25.00	24.00	23.00	19.00	20.90			17.00				16.90
Estonia	30.30		28.30		32.80		27.80		26.20		26.20		26.00		22.10		21.30	
Finland	23.40	23.80	23.40	22.20	23.00	21.80	21.40	20.60	20.40	18.60	19.00	17.80	17.00	15.80	15.40	17.40	15.00	
France	27.00	27.00	26.00		23.40		25.90		26.20		23.30		24.10		22.40			
Germany				24.30		23.20				21.90				20.90				18.80
Greece	35.00				38.60		40.00		39.70	31.90					27.30			
Hungary	30.20			30.40						26.50					25.80			
Iceland	22.40	22.90	21.10	21.90	19.80	19.20	18.80	19.00	17.60	15.40	14.20	14.30	13.80	11.40	12.60	10.90	10.20	9.40

Go To Blog

106) Parameter Actions
By David Pires

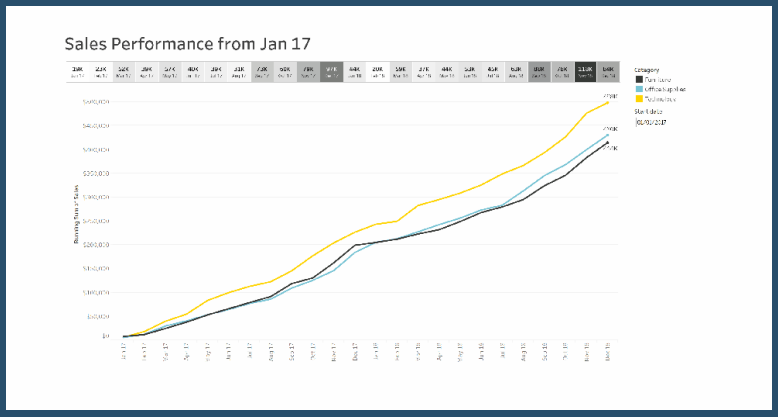
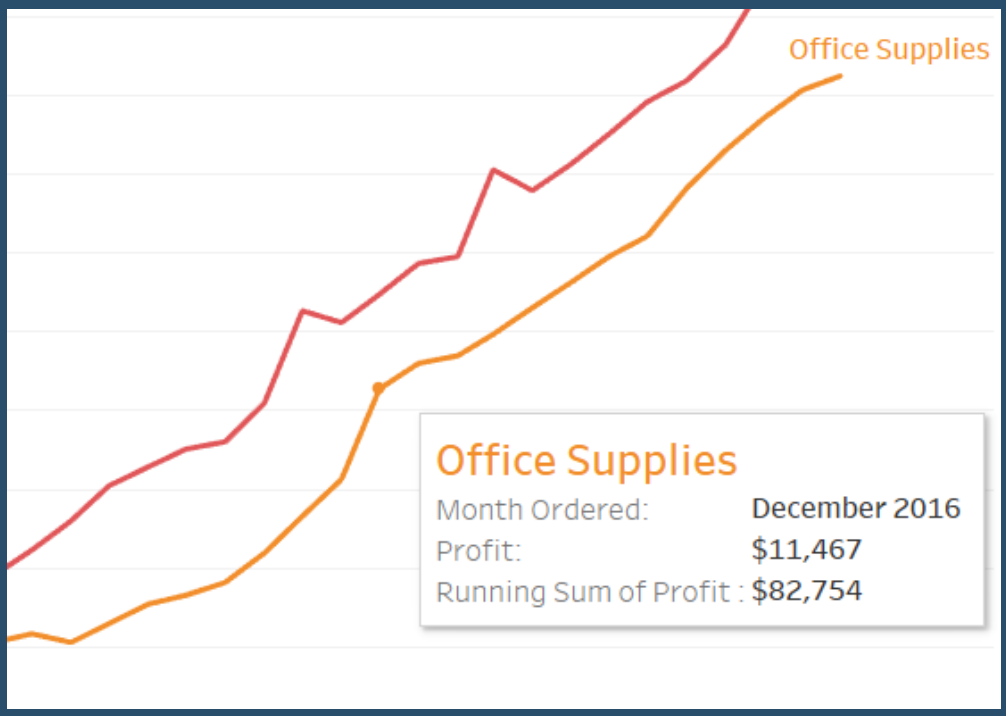


Tableau 2019.2 brings with it an amazing new featured called Parameter Actions. For me it's without a doubt one of the best new features in a long time and one that allows for some amazing new things in Tableau as well as some great time savers and better user experience in Tableau. What are Parameter Actions? Filippos Lymperopoulos has a nice explanation.

Go To Blog

107) How to Dynamically Colour Tooltip Text
By Sarah Bartlett

As much as I love Tableau I'm not a fan of the standard tooltips. These are the bog-standard tooltips which Tableau automatically builds for you that look something like this:



Go To Blog

108) How to build a candlestick chart
By Anna Prosvetova

It is believed that candlestick charts originated in Japan in the 18th century as a form of visual analysis for rice traders. The chart shows the market's open, high, low, and close prices for each time period (usually for a trading day). Using different colours, the chart shows the size of price moves (rising or falling prices). It also helps to make trading decisions based on the repetition of patterns that in turn help to forecast the short-term direction of the price.

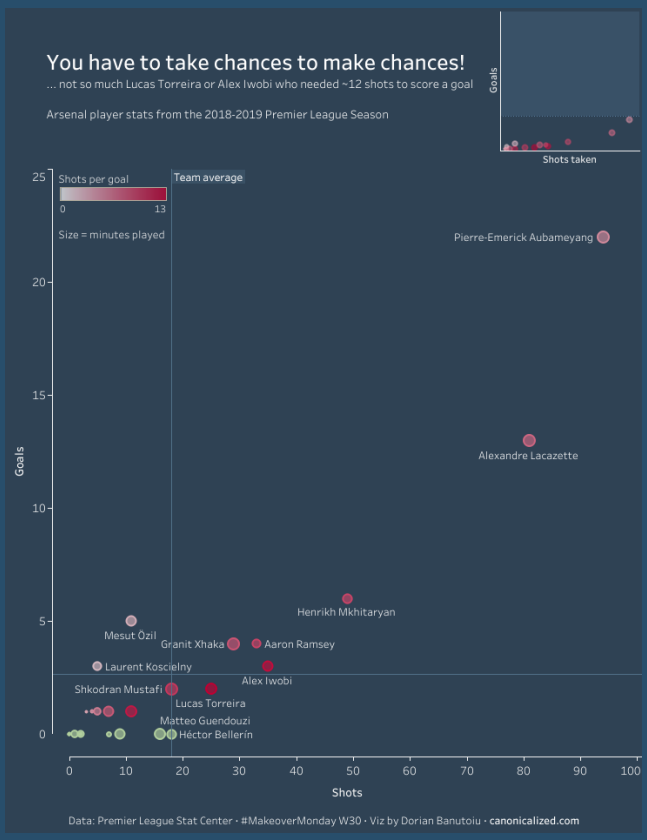
Go To Blog

109) Dealing with common Scatter Plot issues
By Dorian Banutoiu

I have the bad habit of revisiting things I've built with a critical eye. What I love about Tableau Public is that we can let visualizations fly and observe how people react to them.

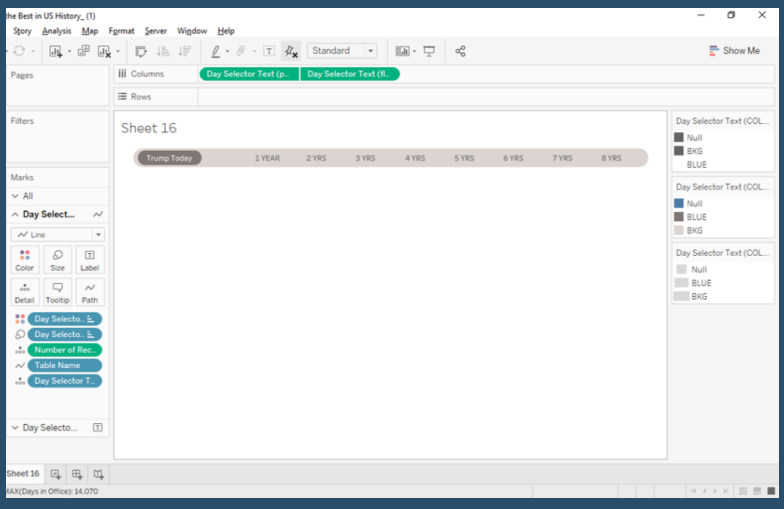
The key thing for me is perspective. The ability to not take feedback personally is essential!

I believe we should try to collect relevant ideas from other people's opinions and use them to improve.



Go To Blog

110) Using Parameter Actions to Compare Time Periods
By Spencer Bauke



First off, I wanted to thank everyone who viewed or gave feedback on the Presidential Stocks viz that Luke Stanke and I published on Tableau Public that won Viz of the Day on October 15th. Secondly, I wanted to give a huge thank you to Luke Stanke for putting up with me during the creation of this viz. I'm not the easiest person to work with, so thanks for giving me just the right amount of push back and insightful feedback to fuel my creativity.

This blog post is going to cover one aspect of our viz, and that is the Parameter Action we used to select the Presidential comparison time frames at the bottom of the viz. By clicking on the year values above the running line chart, the lines are highlighted up until that year point.

Go To Blog

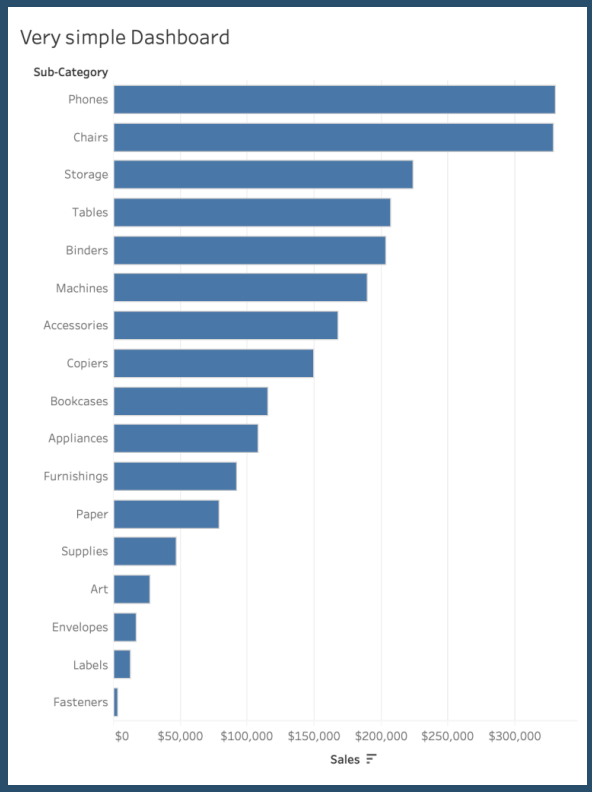
111) How to Track the Usage of Dashboards via URL Actions By Rodrigo Calloni

Today a colleague of mine (who I kindly call my Tableau apprentice) asked me the following question:

"do you know if it's possible to analyze clicks in a Tableau Dashboard?"

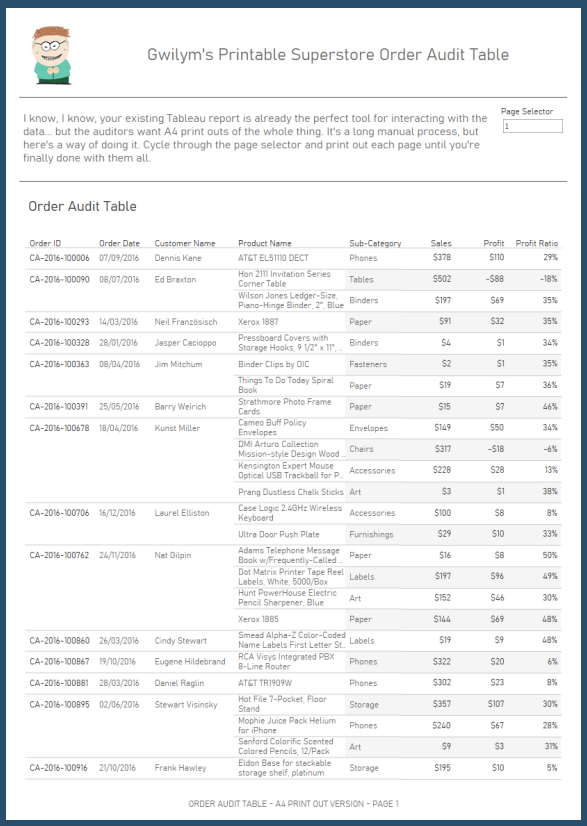
My immediate inner thought was… What?!? So I responded:

"I don't think so :("



Go To Blog

112) How to create a printable table with multiple pages By Gwilym Lockwood



This isn't my favourite use of Tableau by any stretch of the imagination, but it's something that comes up now and again when doing Tableau consulting:

"I've got a massive table, which is fine to scroll through online, but I can't print it. How can I print out this table over multiple pages while keeping all the dashboard formatting and the column headers?".

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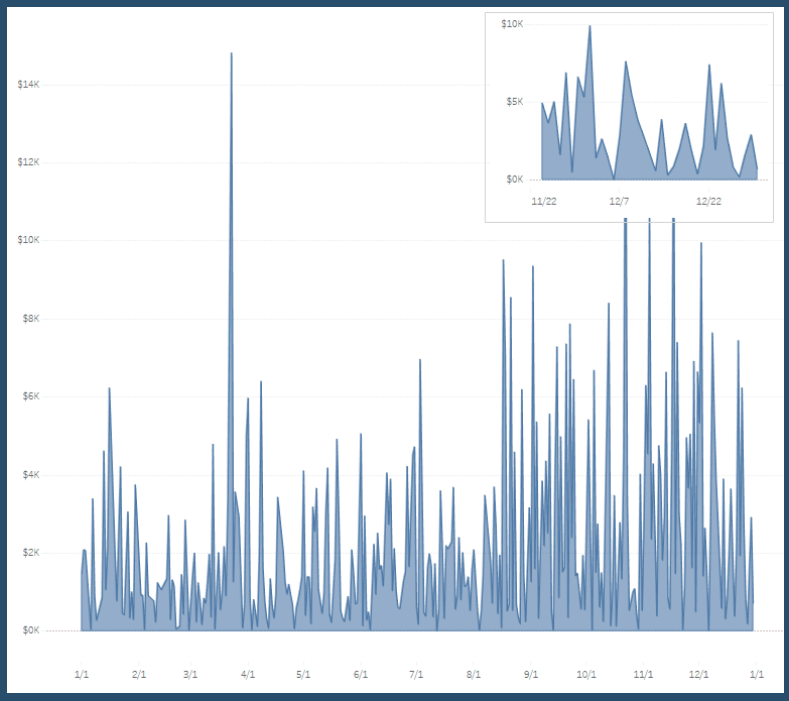
113) Zoomable Charts
By Ken Flerlage

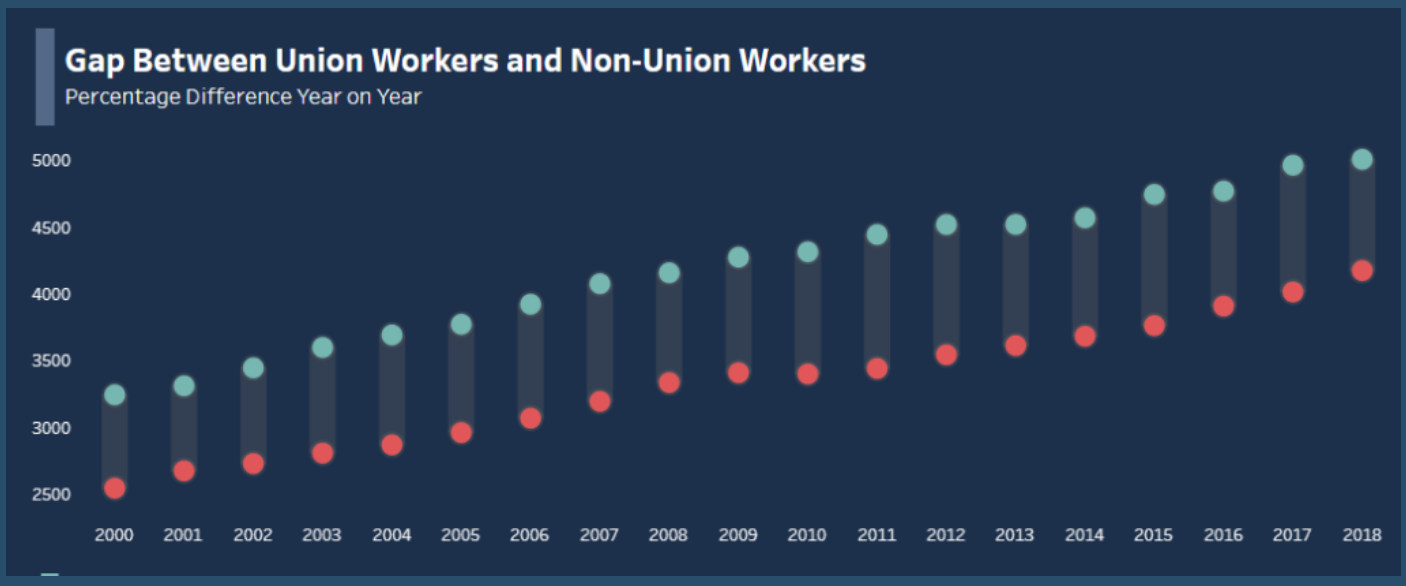
Last year, Zen Master Chris Love posted this visualization analyzing the Labour Party's plan for a new tax bracket (click on the image to view the interactive version).

As always with Chris's work, there was a lot to like about this, but the thing that most drew my attention was the small zoom window he created. I just thought it was such a great way to show dense data then focus in on some specific element of that data.



Go To Blog

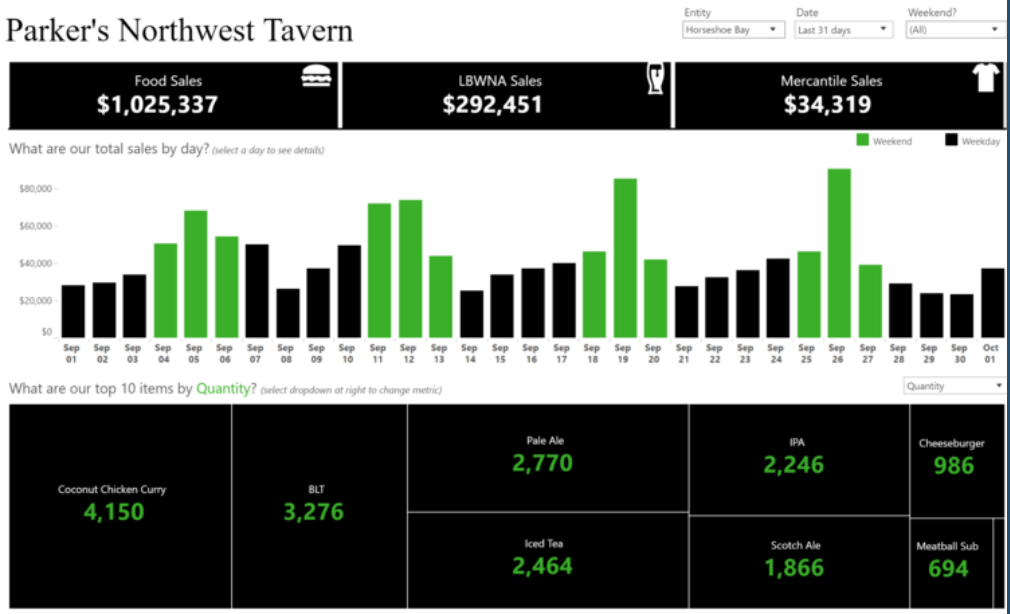
114) How to make a span chart
By Christopher Marland



Rule number one in Data School is that if Andy teaches you a new trick, you have to blog about it straight away. As a stickler to the rules, here's my blog about this surprisingly simple chart type.

Go To Blog

115) How to Create a Subtitle that Highlights Which Fields Have Been Filtered
By Eric Parker



One of the challenges of busy dashboards in Tableau is that it can be hard to tell if a filter has been applied. Consider a dashboard like this where the filters are subtle and in the top-right corner.

An inexperienced user might easily miss which filters are applied.

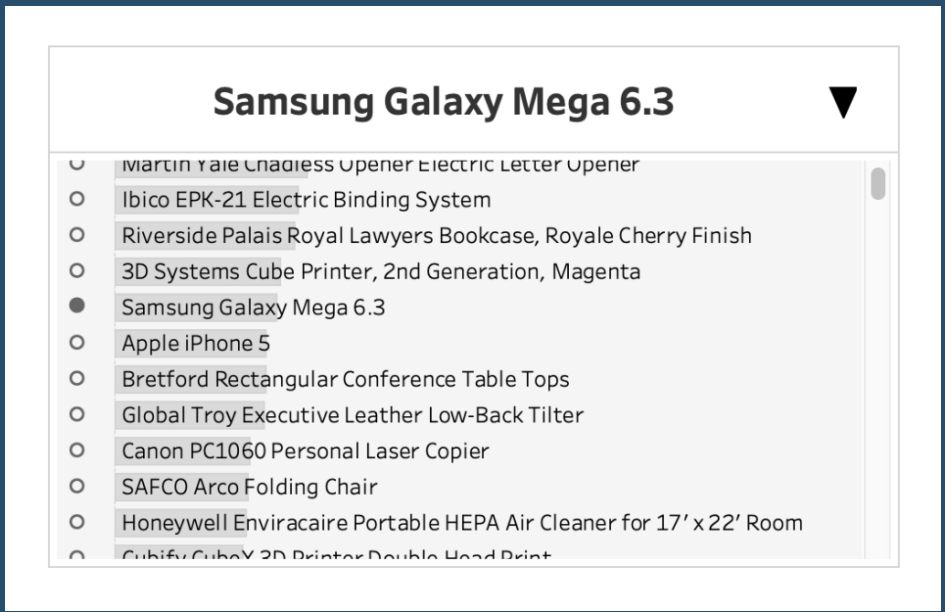
One way to make that more obvious is through the use of dynamic subtitles.

Go To Blog

116) Custom Dropdown with Parameter Actions & Show/Hide Container
By Lindsey Poulter

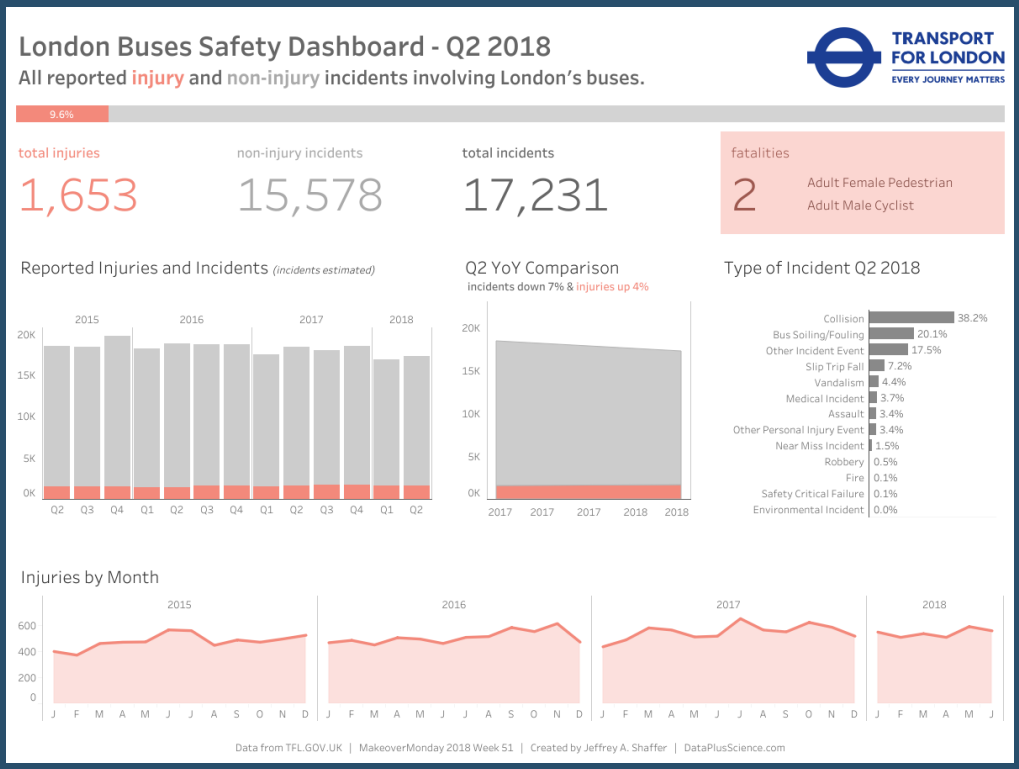
In my 2019 Tableau Iron Viz entry, I wanted the end user to be able to select a brand to understand its particular location strategy.

I also wanted the ability to compare the selected brand to its rivals. The best way to achieve this was through using a parameter. However, the dataset included 922 unique brand names. If I set the parameter to list and then added all the brand names, they would have appeared in alphabetical order.



Go To Blog

117) Text Alignment on Dashboards
By Jeffrey Shaffer



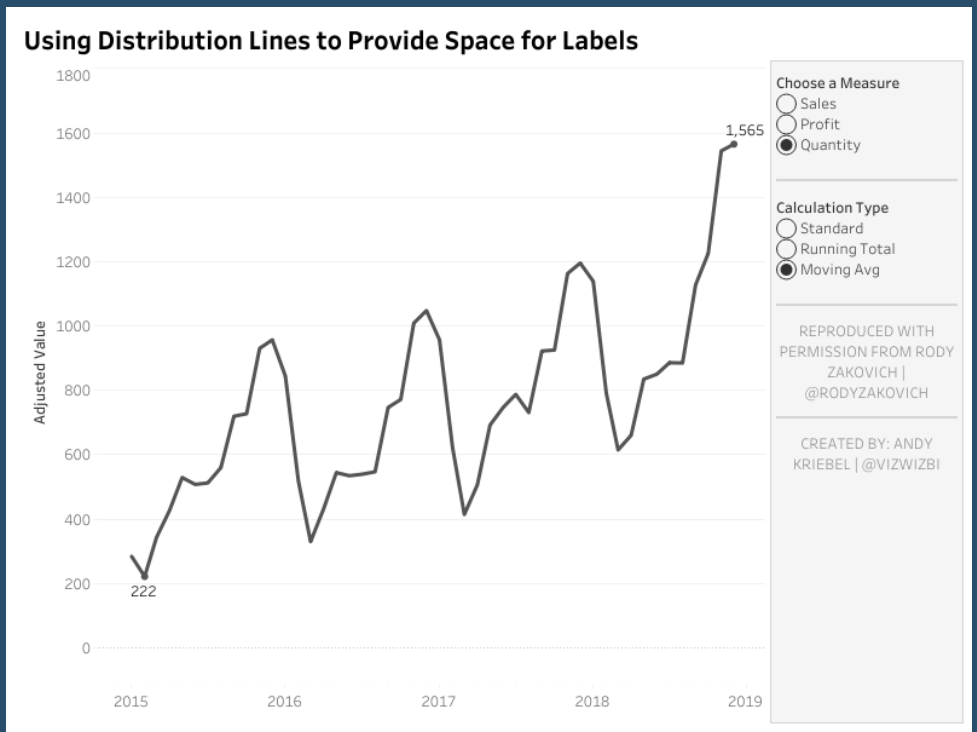
Yesterday, Steve Wexler posted a new blog post DON'T center, right-align, or justify text on a dashboard. Steve makes a case that only left-aligned text should be used on a dashboard. While Steve states in his blog post, "Or at least have a very good reason for doing so.", he doesn't include many examples of this.

Go To Blog

118) Using Distribution Lines to Provide Space for Labels
By Andy Kriebel

Credit for this tip goes to Rody Zakovich (@RodyZakovich). In the past, I've always created complicated table calcs to give labels room above the max and below the min of a line chart.

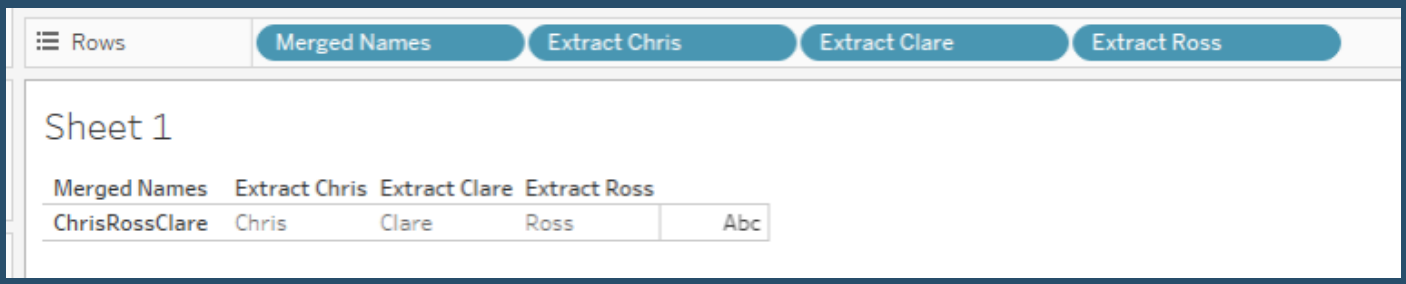
With distribution lines, you no longer need to do that. Simply set a percentage offset and you're good to go! So simple!



Go To Blog

119) An Intro to Basic String Calculations: Left, Mid and Right functions
By Ross Easton

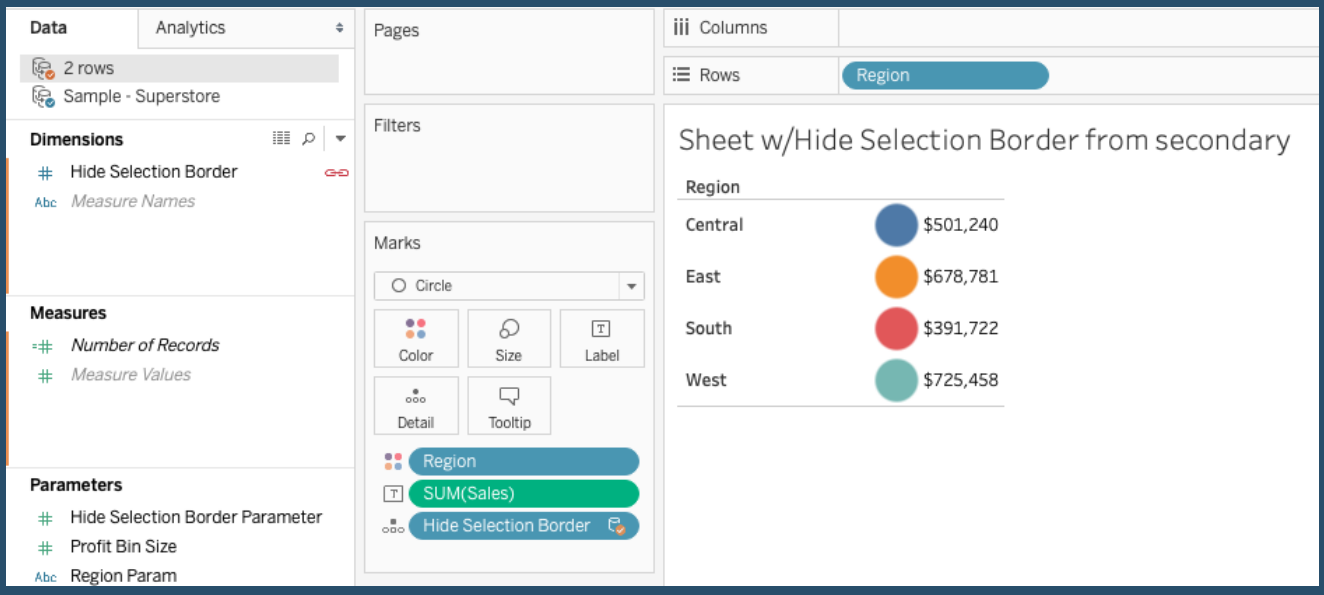
As someone who had never encountered formulas in any capacity before beginning to use Tableau, I often find myself encountering a problem and thinking 'I bet there is a really simple way of solving this'.



Go To Blog

120) Hiding Selection Borders
By Jonathan Drummey

A few days ago Anya A'Hearn sent me an image and a request:

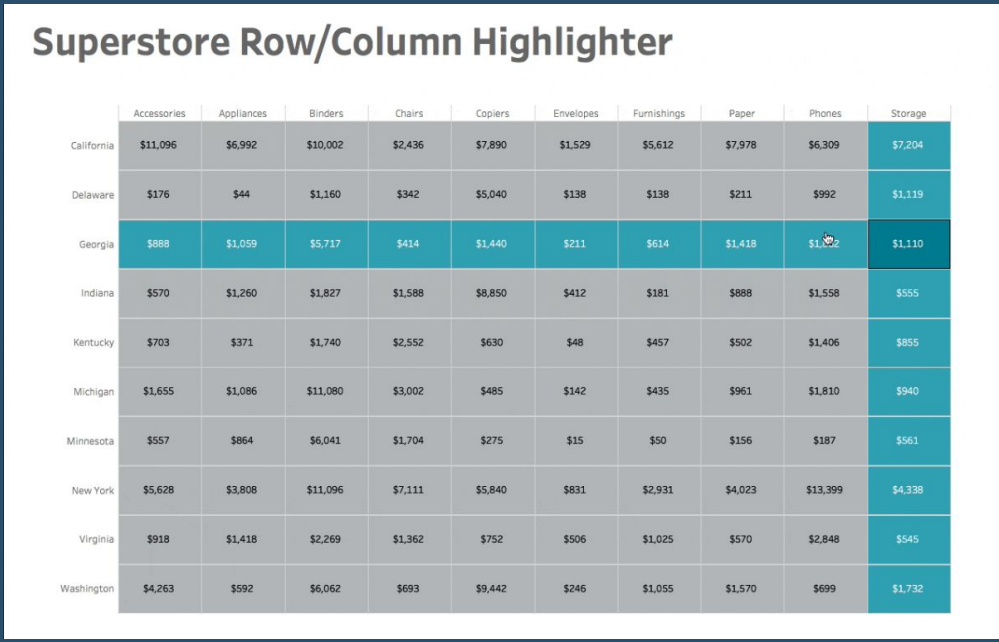


In the dashboard the user can tap on one of the rectangles (like the Dropped calls sheet) and then it'll "expand" to show the area chart for that particular measure. Anya wanted to remove the selected mark on the Dropped Calls sheet (the little black mark above the triangle). You can see her completed viz in her post: Mobile Accordion: easy access to details

So how did we get rid of that black stain on those lovely gradient backgrounds? With a parameter action, calculated field, and data blending, of course! Read on to find out!

Go To Blog

121) Row and Column Highlighter using Set Actions
By Matt Chambers

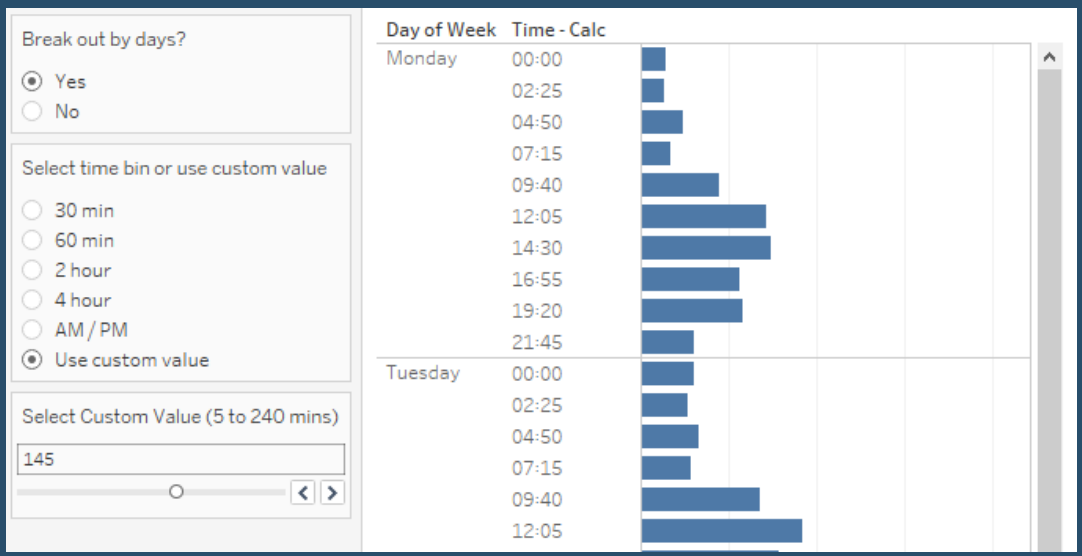


With set actions in Tableau 2018.3, we have the ability to create all sorts of new user interactions. One thing that I thought would be helpful for users is to be able to see the rows and columns highlighted as well as designate which cell a user is specifically hovering on. In this tutorial, I'll show you how to build a cross tab with row and column highlighting.

Go To Blog

122) Grouping Data into Custom Time Bins
By Marc Reid

For a recent project I had to group my data in to custom time bins, for example, 30 mins, 60 mins, 240 mins etc. In this blog I show two methods in which you can do this:



Using predefined Tableau groups

Using a calculation

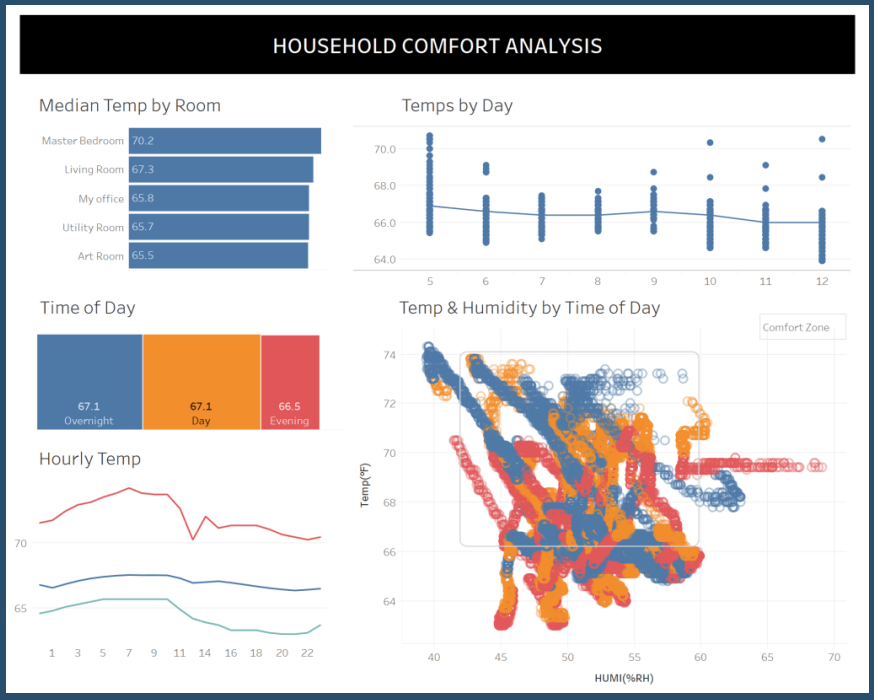
I also also look at how you can also split the data out into different days or combining all days. The example below will use tweet data that includes a date time field of the tweet, the bars are number of records. The data is not important, however, as I just needed a time field to work with.

Go To Blog

123) 5 Secrets to Improve Color Use in your Dashboards
By Bridget Winds Cogley

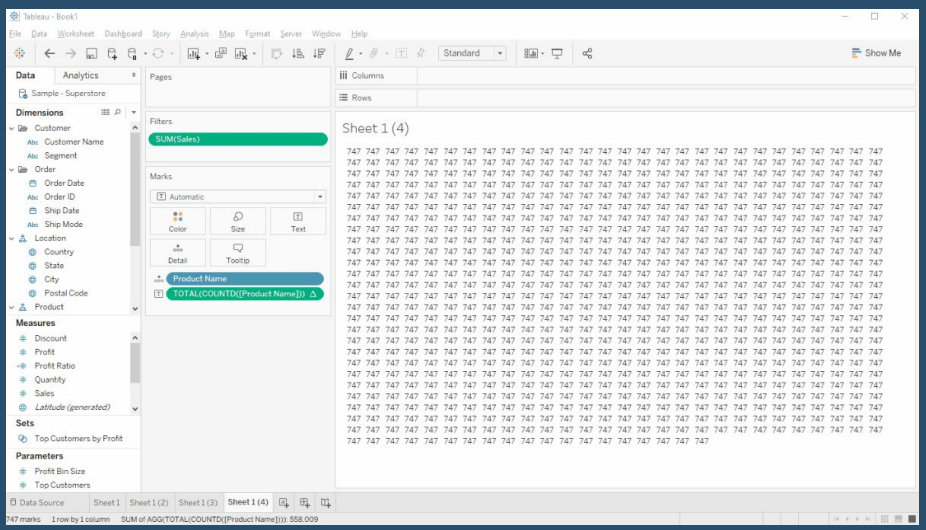
Color is often cited as one of the hardest pieces to master in Tableau design. There's a reason: conventional wisdom and trainings fail to be explicit enough. Believe it or not, there is a way to use color effectively without all the headaches.

Tableau has already done a ton of color science work, from creating color palettes that are balanced to developing diverging palettes that work with our ability to discern color variance. It's not for lack of color…it's often that's there's too much of it. Worse, many of us have been trained to think about color all wrong.



Go To Blog

124) Tableau Tip: the INDEX trick
By Hanna Nykowska



It is the last day of 2019 and I wanted to share something that I have found very useful in the past year. What I have in mind, is something I call 'the Index trick'. Before I start, I wanted to give a shout to Charlie Daffern as she suggested it to me when I first needed it but then I have found many other use cases for this technique.

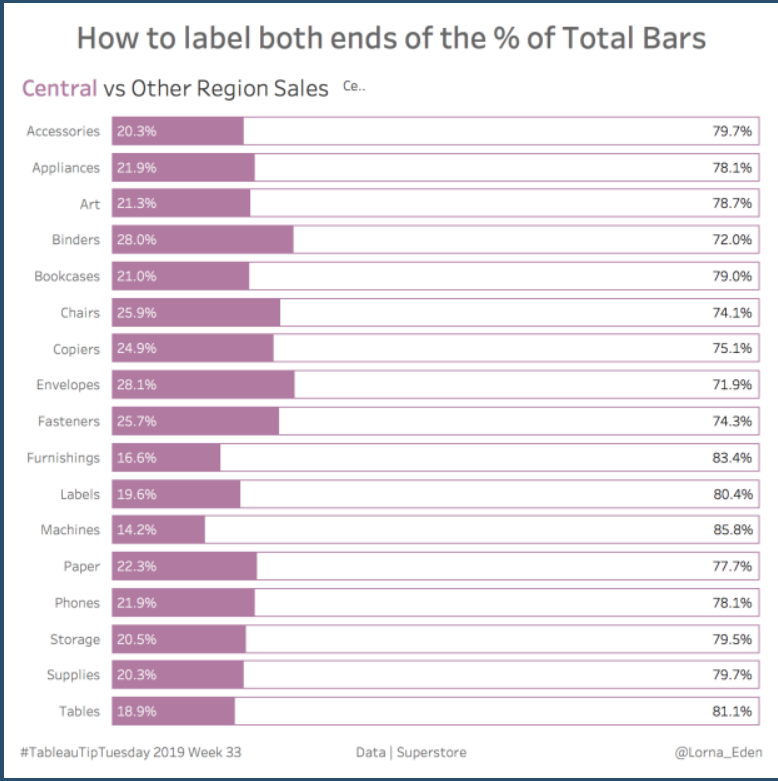
The Index trick is using the INDEX() function as a filter. It is often rather easy to use. However, the configuration of the table calculation can be tricky (something to keep in mind).

I'll first explain the index trick on an example and then will show a few ways of setting it up, and give more use cases. If you're interested in the last bit, jump to the end of this post.

Go To Blog

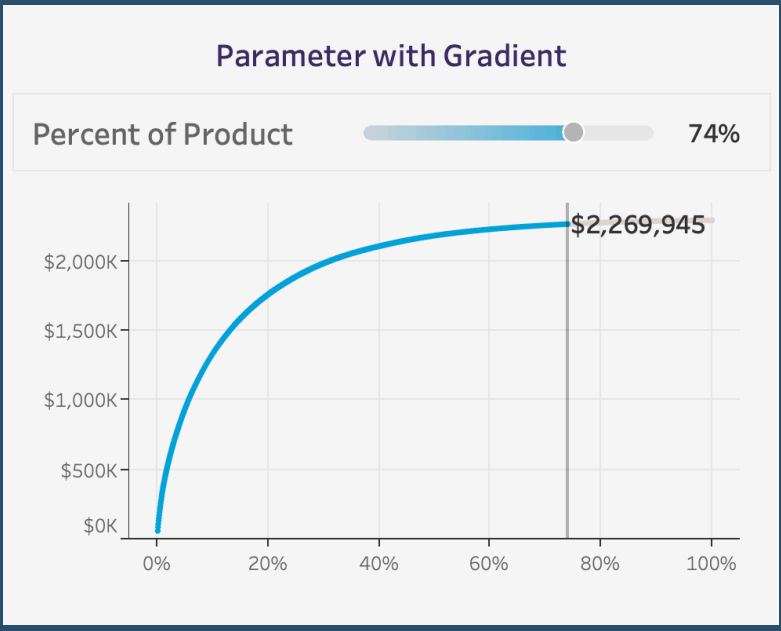
125) How to Label Both Ends of the % of Total Bars
By Lorna Brown

This week is a tip that I used to create last weeks guest #WorkoutWednesday2019 by Corey Jones. He did it slightly differently as I couldn't get the labels to line up where they needed to be.



Go To Blog

126) Rethinking Slider Parameter Formatting in Tableau
By Luke Stanke



In this post we discuss how we can create sheets that look like formatted sliders.

We've more-or-less always been stuck with this same parameter slider look-and-feel.

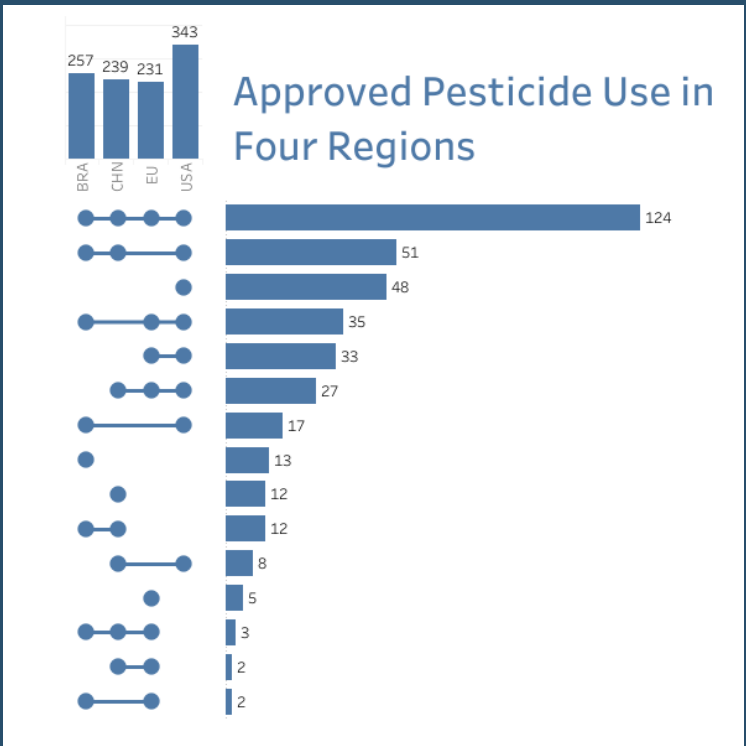
However, I want a different look! Once again, we can do this by using a separate sheet and formatting it to look like a parameter and applying parameter actions to that sheet.

Go To Blog

127) Creating UpSet Plots in Tableau
By Chris Love

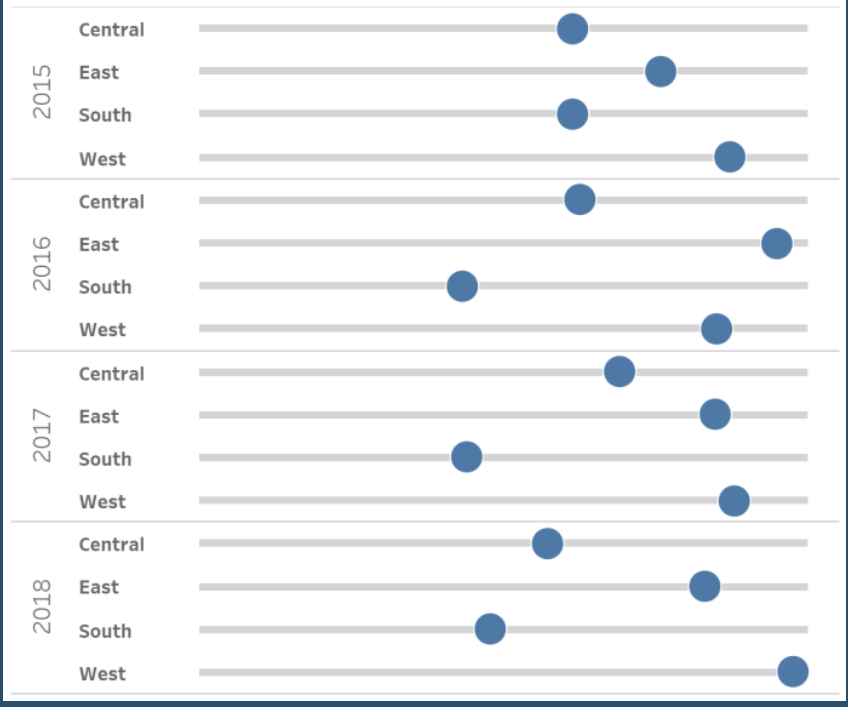
Looking through #MakeoverMonday I noticed a couple of Venn Diagrams this week. Venn diagrams are very popular, and audiences will be familiar with them, but are difficult to build in Tableau. What is more there are some great alternatives – especially when trying to build plots with more than 3 combination states.

UpSet plots are a great alternative to a Venn. While they may require some explaining to an audience they can quickly provide much more insight in a much smaller space and are relatively simple to build in Tableau.



Go To Blog

128) Tableau QT: Volume Dial Chart in Tableau
By Toan Hoang



Ok, yes, I call these volume dials as that is what it reminds me off, but this is also known as Cleveland Dot Charts, but in any case, please enjoy this Tableau Quick Tip (QT) which you can do in 5 mins.

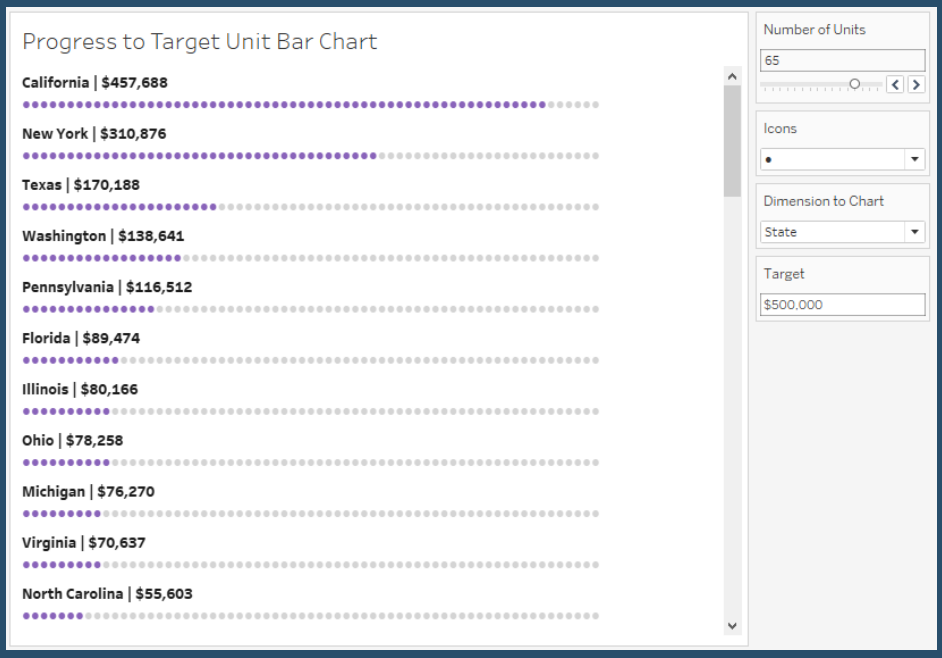
Go To Blog

129) Unit Bar Charts that aren't
By Adolfo Hernandez

Hey datafam, I'm back with a new blog post that is long overdue!

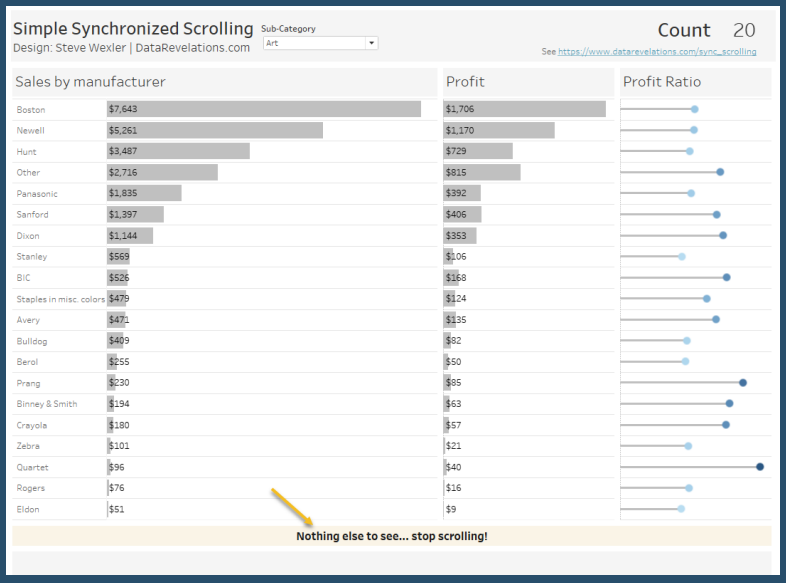
Some weeks ago, I noticed that my Tableau buddy, Rodrigo Calloni, asked how to do a Unit Chart with the category labels on top of the bars. There a couple of great tutorials on how to do this by Jeffrey Shaffer and Rajeev Pandey, you can read them here and here.

I took a different approach where I draw unit bar charts that aren't bar charts. I adapted this method from the #workoutwednesday challenge 2018 week 11.



[Go To Blog]

130) Simple Synchronized Scrolling in Tableau
By Steve Wexler



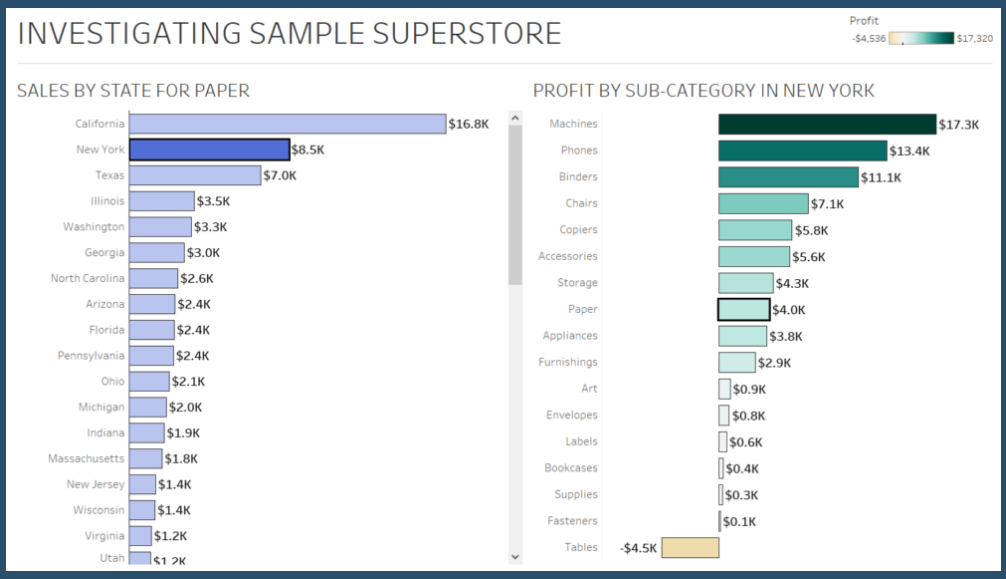
Going back to 2013 I've had a "wish list" that Tableau has either addressed (navigation buttons, collapsible / expandable containers) or is about to address (dynamic parameters and server-side animation).

One feature request that still remains unmet is being able to change the width of individual columns on a worksheet. This is something that's very easy to do in Excel but if you want to have charts with different widths in Tableau you need to stitch together one or more sheets on a dashboard, as shown below.

[Go To Blog]

131) Filter action fields to update sheet titles
By Seffana Mohamed-Ajaz

In this blog I will go through how I use fields generated from a dashboard filter action to update sheet titles as seen in Fig. 1 below using Sample Superstore data.



The dashboard above shows that when I filter for a single state or sub-category (depending which chart), the adjacent chart title will update to say what entry it has been filtered for.

For example, if I filter for Binders in the PROFIT BY SUB-CATEGORY chart, then the SALES BY STATE sheet will update to say SALES BY STATE FOR BINDERS.

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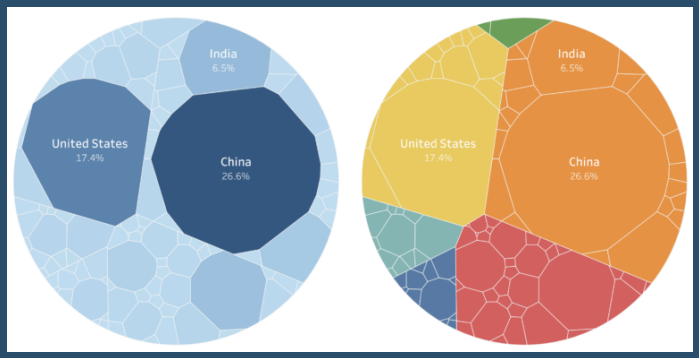
132) Build a Voronoi Treemap in Tableau with two steps
By Tristan Guillevin

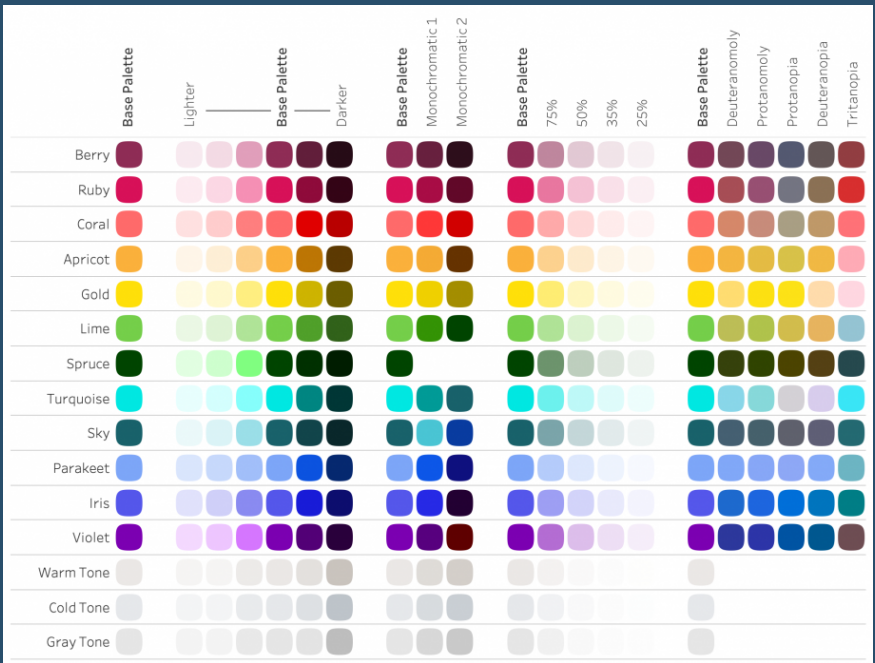


A few weeks ago, I discovered that you can convert any SVG element into a polygon. This means that you can convert any crazy visualization generated by web libraries, like d3.js, into a simple list of X and Y coordinates, perfect to use in Tableau. Quite exciting, right? If you are not excited by this, I am for both of us.

Almost at the same time, I came across the beautiful work of Victoria Rose. And where most people will only see wonderful mini field aerial landscape, it also reminded me of a Voronoi Treemap, and Frank Lebeau's work to generate them using d3.js.

Go To Blog

133) Building a custom colour palette
By Luke Stanke



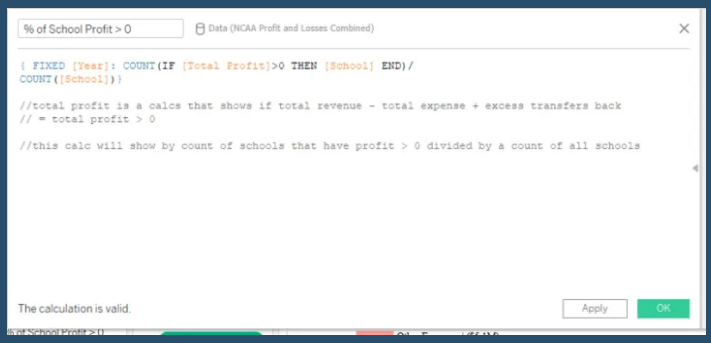
So you want to build a color palette for Tableau? This post isn't going to show you how to add a custom color palette. You can read about that here. This post also isn't going to go in depth with color theory and doesn't allow you pick colors based on some of those ideas.

This post will take you through a process of how color palettes are built for our clients by discussing the recent palette created for #WorkoutWednesday.

Go To Blog

134) 4 Tips for Organizing Your Tableau Workbooks
By Spencer Bauke

Here are some tips for organizing your dashboard that you can use while in the middle of that three hour design session when you have everything rolling but are being a little sloppy with your naming and organization in your workbook. Use these three tips to help keep yourself organized!



- Tip 1: Use Comments
- Tip 2: Use Folders
- Tip 3: Annotate Your Calcs
- Tip 4: Use Default Formatting

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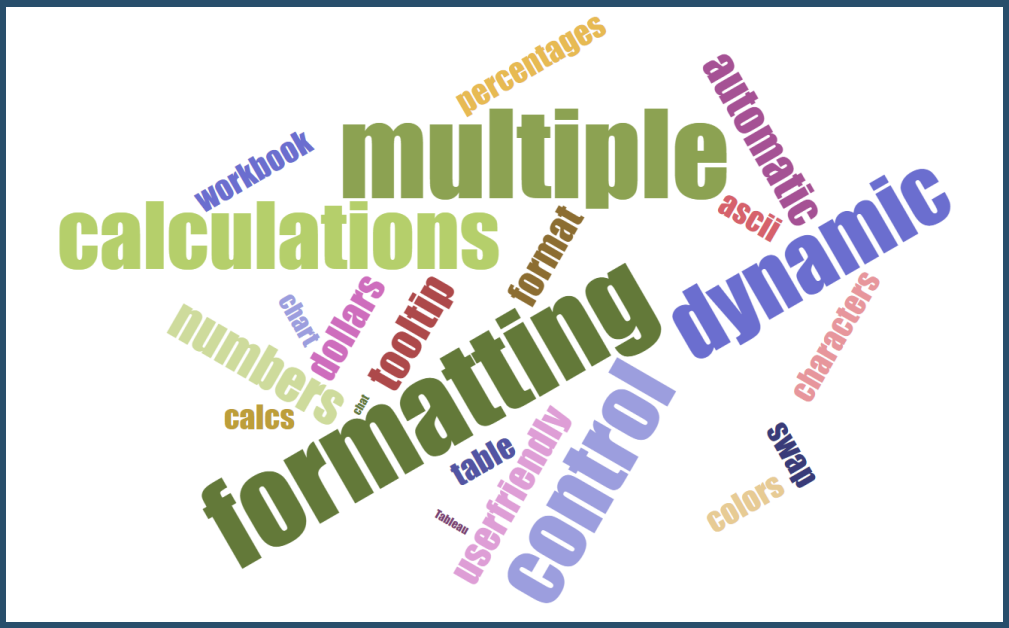
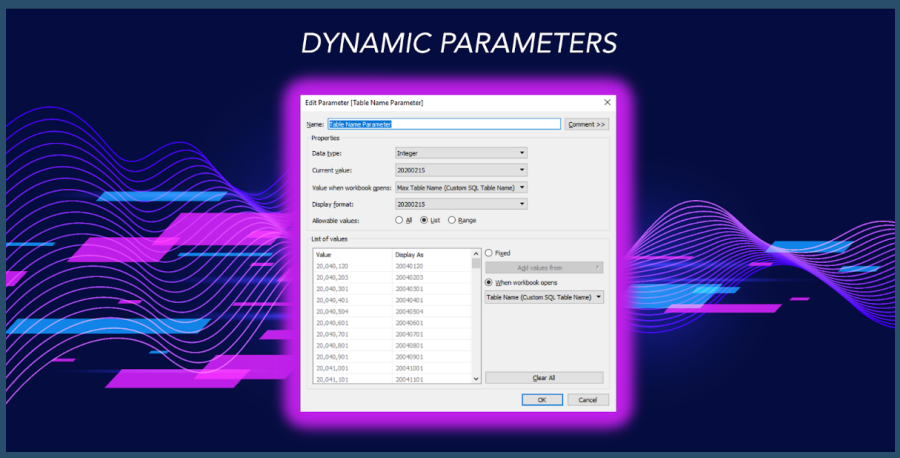
135) Dynamically Control Formatting Using Multiple Calcs
By Kevin Flerlage

In this blog post, I focus on a technique where you create multiple measures using calculated fields, to control the formatting of a single measure. What do I mean by this? Well, assume you are showing the sum of sales in a BAN. For large numbers in the millions, you may want to show the BAN in display units of M with one decimal point, $2.3 M for example. However, what if you allow the user to filter the data and that number is reduced to a very small number, say $42,000? Presenting this figure in the same format would yield $0.0 M. This is a very common obstacle when building interactive dashboards.



Go To Blog

136) The Key to Dynamic Parameters & Some Good Use Cases
By Kevin Flerlage



In the history of the Tableau ideas forum, dynamic parameters (often referred to as Hooperized Parameters, named after original Zen Chuck Hooper) is the most upvoted feature request. Lucky for all of us, the Tableau dev team has delivered this feature to us in Desktop version 2020.1, which was released late last night!!!! I recently spent some time testing them out. I personally got tripped up in one area, so let me take a few minutes to tell you about their purpose, how they work, the key to making them work, then provide you with a few good use cases.

Go To Blog

137) Buffer Spatial Calculations
By Marc Reid

In 2019, Tableau introduced three spatial calculations: Makepoint and Makeline (in 2019.2) and then Distance (in 2019.3). In version 2020.1, Tableau has introduced another spatial calculation, Buffer, which allows you to visualise the distance around a point location.

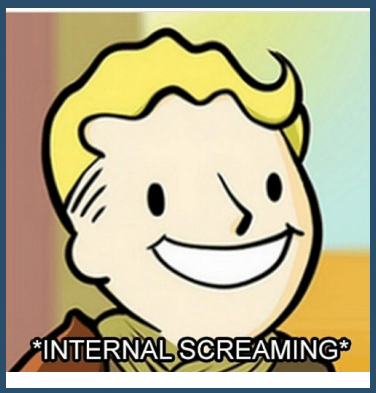
The Buffer calculation returns a spatial object that, when rendered on a map, looks like a circle mark, as shown below:

However, a buffer is not a circle mark. When you resize circle marks in Tableau you are essential giving it an arbitrary size (using the slider bar shown below) and not a specific size defined by a unit of measure:

Go To Blog

138) The Dashboard Requirements Worst-Case Survival Handbook
By Mark Bradbourne

It's always a good laugh to joke about some of the crazy requests we get in regards to requirements, but it's also good to have a plan when these "jokes" arise. Here are a few things I've learned over the years.



We've all been there! You are sitting at your desk innocently working away when all of a sudden a meeting invite arrives with the subject line "Dashboard Requirements Meeting". Your first instinct may be "awesome, a new project AND they have requirements, or at least want to talk about them! Better than the last time when they just gave me a dataset with no requirements and say 'make a dashboard' right?"

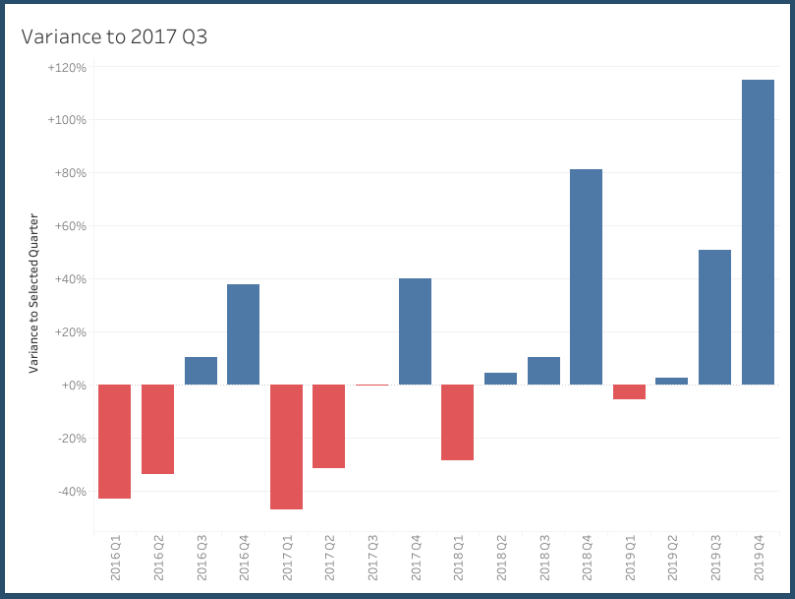
Go To Blog

139) Deselect Marks with a Highlight Action
By Andy Kriebel

In this video, I show you how to deselect marks with a highlight action. I take you through two use cases:

Using a set action to click on a region and sort a stacked bar chart based on that region, then use a highlight action to deselect the region selected.

Using a set action to compare quarterly sales to the sales of a selected quarter. Then use a highlight action to deselect the quarter selected.



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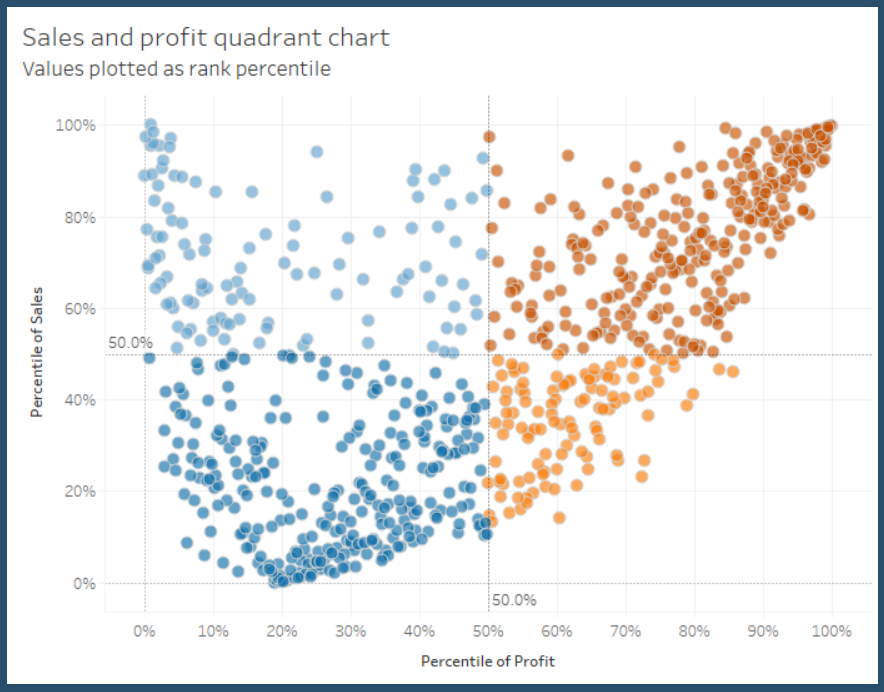
140) Filter between blended data sources using Set Actions
By Andrew Lehm



Filtering across blended data sources in Tableau can be a bit tricky – especially when you want to filter by a field that isn't contained in your secondary data source. I recently came up against this issue and found a neat solution to my problem and thought I'd share.

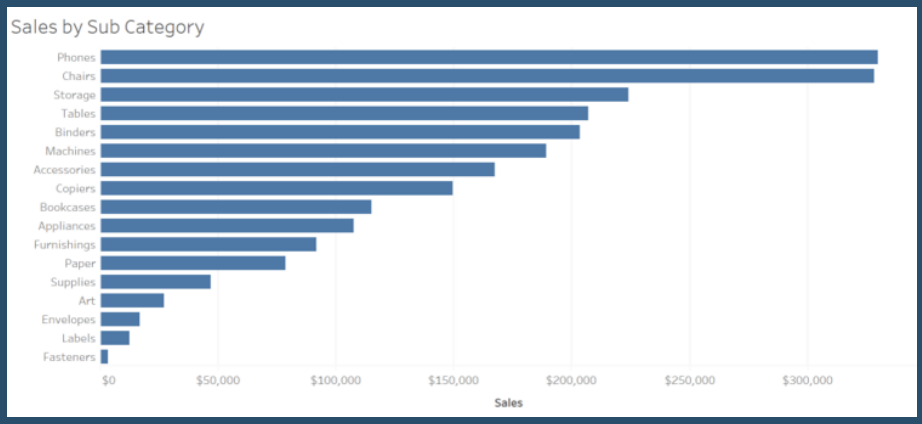
I had created a quadrant chart showing how each customer was performing in two metrics and had created a calculated field to colour each of the quadrants by.

I then wanted to click on a customer, and filter a separate sheet on the dashboard to all of the customers in this quadrant. Normally this would be achievable by filtering on specific fields, but unfortunately, the data source feeding the second sheet came from a secondary data source.

Go To Blog

141) Grouping Options in Tableau
By Eric Parker

There are three distinct methods for creating groups in Tableau. The differences and features of the differences aren't well understood. We'll take the time to review those three methods throughout this post. Those three methods are; header grouping, visual grouping and geographic grouping. See the below table for a quick reference.



Header Grouping

Visual Grouping

Geographic Grouping

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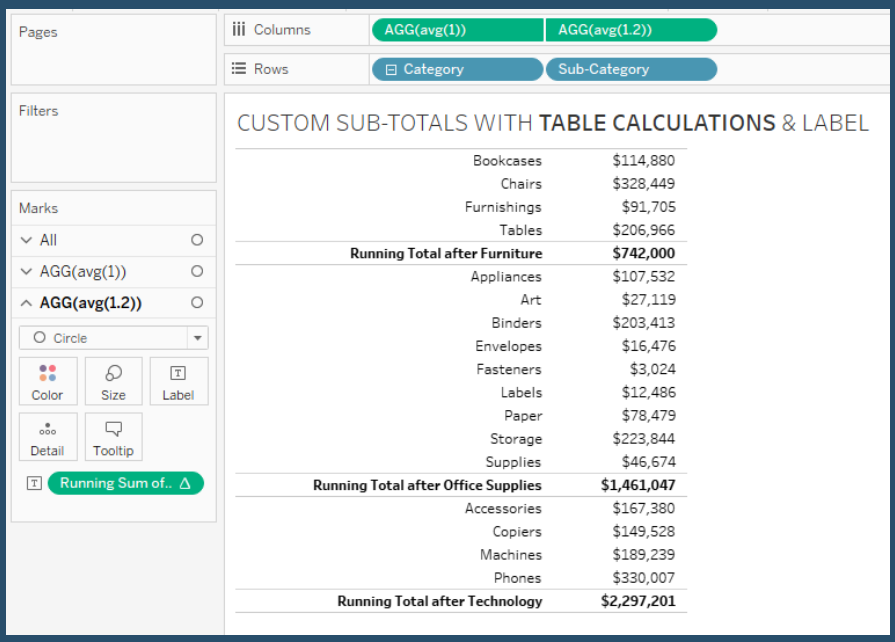
142) A Journey to Custom Subtotals with Table Calculations
By Jeffrey Shaffer

This past weekend Tableau Zen Master Klaus Schulte published a great blog post showing four different ways of Adding Custom Sub-Totals in Tableau. In this blog post, he demonstrates how to do this with data densification and table calculations. I posted my own solution later that evening, which I will describe below, but I wanted to discuss the journey to get to the solution.



We often see finished visualizations or technical blog posts relating to Tableau, but when we see the end result, we don't see the hours of iteration that it can take to get there. Those iterations can include dead ends, mistakes and sometimes overlooking the simplest of solutions. So in an effort to show this process more, I thought I would walk through the process that I took. Keep in mind that I didn't record every step along the way, but I will highlight my process as best I can.

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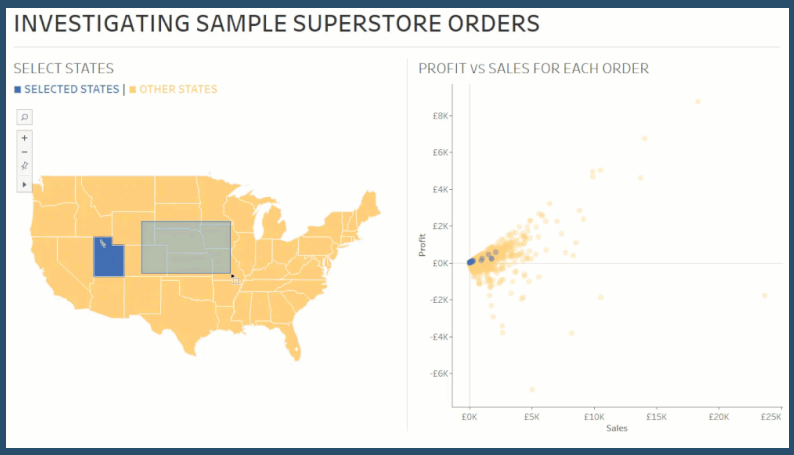
143) Colouring marks using Highlight, Set and Parameter Actions
By Seffana Mohamed-Ajaz



Ever clicked on a mark on a Tableau worksheet or dashboard and notice the other (unselected) marks would fade out? Well, I personally am not a fan of this default feature because I would still like the other marks to be visible. You can see the fade out that I am referring to in Fig. 1 below.

I was recently directly to Brian Moore's blog on how to counter this issue. I will be detailing the steps below to consolidate my learning, and hopefully this may help someone else as well.

There are three methods you can use to achieve this with Tableau's worksheet and dashboard actions. The actions being: highlight, set, and parameter actions. I will be using Tableau's Sample Superstore data.

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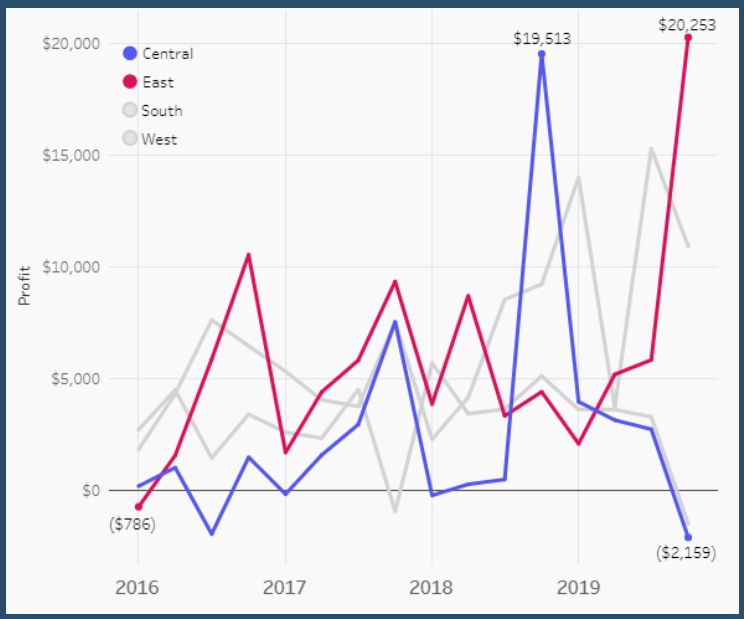
144) How to create an interactive legend
By Luke Stanke

For this blog post I wanted to extend our post on multiple-select parameters and apply the same use case to legends on a dashboard. Right now legends are pretty static in Tableau. Unless you edit the base xml of the file you are always going to end up with a square with a description of the value to the right.



While the legend is serving it's purpose, I believe that it can be significantly improved on using parameter actions. I think the legend should be more interactive. We should have the ability to turn a set of marks on or off with a click of a button. Note: Currently selecting a value highlights that value–this is a nice feature, but it's still a little clunky with the black outline around the selected values, in my opinion.

In this tutorial we will build the following parameter-driven legend that will allow to select or deselect any value in the "legend".

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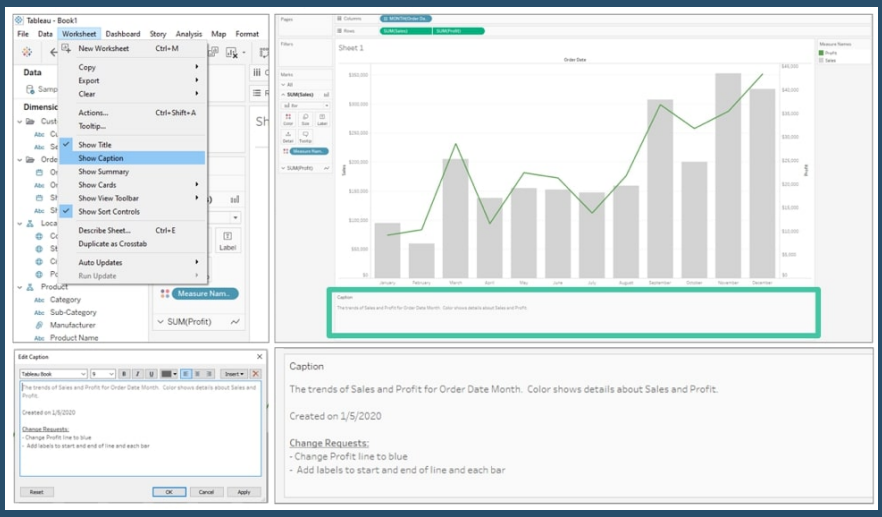
145) How to Improve Your Tableau Work with Documentation By Kendra Allenspach



When I first started out as a Tableau developer, I was just trying to make sure my calculations didn't result in errors and the dashboard rendered properly on Server. But as time went on, the caliber of dashboards became more complex and the number of developers on a project increased; I soon realized I needed a way to keep track of the inner workings behind the visualizations.

Here are a few best practices I have found to be beneficial when building dashboards so that others (and future me) can understand what's going on behind the scenes.

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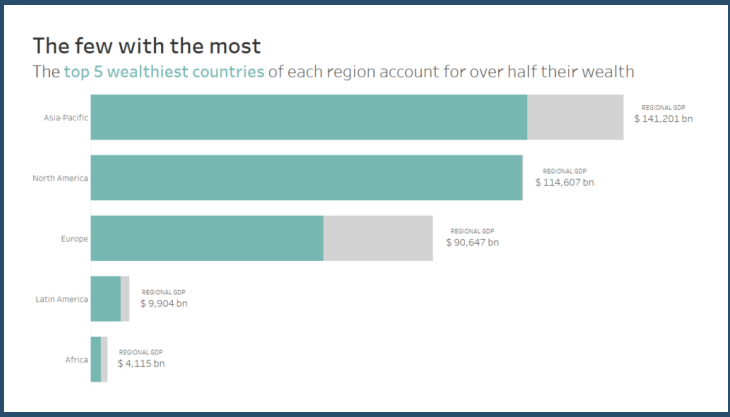
146) Bar Charts: Colour-Coding the Top X using the Index Function By Jess Hancock



So there I was: a cup of tea in one hand, a mouse in the other, sat in front of the latest Makeover Monday with some apprehension. 'Global Wealth by Country', sitting pretty with just 3 fields, seemed deceptively simple. Nonetheless, I had a hypothesis: the top 5 countries in each of the specified regions account for a significant proportion of that region's wealth.

It's worth prefacing this post with the fact that my example is bad. To kick things off, the dataset provided for Week 7 seemed inconsistent in its grouping of countries by region ('India' and 'China' had their own regional category, for example, which were ultimately integrated into 'Asia-Pacific' for ease of use). Going forward, I'd probably scrap regional considerations altogether, and focus on comparisons on the country level.

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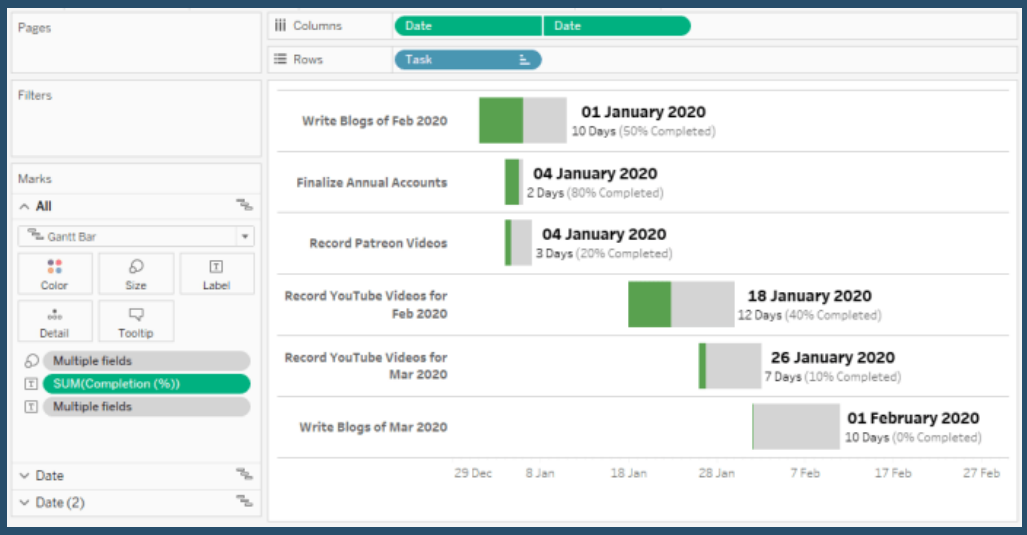
147) Tableau QT: Completion Gantt Charts
By Toan Hoang

In this Tableau quick tip, we are going to walk through the creation of a Completion Gantt Chart in Tableau in 10 minutes or less.



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