Tableau Tips and Tricks

Embedding Dynamic Web Pages into a Dashboard

1. Start by **opening up *Tableau Desktop*** by clicking on its icon on the Desktop (looks like a white square with plus symbols in it).
2. We are going to work with a built-in dataset. Under **Saved Data Sources**, **select Sample - Superstore.**
3. Let's create a quick choropleth map of states colour coded by profit to use in our dashboard. First, **right-click on Sheet 1** at the bottom, **select rename**, and **give it the name "Map"** and **press Enter.**
4. Let's use the Show Me option. **Hold down the Ctrl key** and **select the Profit variable** (**Measures**) and the **State variable** (**Dimensions**), and then **click on Show Me** to expand the tab. **Select the choropleth map option** (i.e., the map with shaded areas). Then **click on Show Me again** to close the tab.
5. Next, we need a dashboard. **Click on the create new dashboard icon at the bottom, next to the new worksheet icon.**
6. For our dashboard, **under Size** on the left, **change Fixed size to Automatic** to give us more space to work with.
7. **Drag the Map sheet into the dashboard**.
8. **Drag the Web Page object into the dashboard underneath the Map sheet, so that the grey box expands to the full width of the dashboard.**
9. **In the pop-up, put https://en.wikipedia.org/wiki/United_States**, to set this page as the default you see when you first go the dashboard.
10. Next, near the top left of the Web Page container, **click on the drop-down arrow for more options. Select Add URL Action...**
11. **Change Run Action to Select. For the URL put https://en.wikipedia.org/wiki/<State>. For URL Target, make sure our Web Page Object is selected.**
12. Now, when someone clicks on a state in the map, the web page container loads the Wikipedia page for that particular state.
13. Save the workbook. **Go to the File menu and select Save as. Give it a name and pick a folder to save your file**, such as the Desktop or My Documents.

Using Customized Colour Palettes

14. First, let's create a line graph to work with. **Click on the new worksheet icon at the bottom of the screen. Rename this one to "Line".**

15. **Drag the Order Date variable** (**Dimensions**, under **Order**) **next to columns** and the **Sales variable** (**Measures**) **next to rows**.

16. Then **drag the Region variable** (**Dimensions**) on to the **Colour** box in the **Marks** card. This creates four coloured lines to represent the Sales of each region to compare them.

17. From the top ribbon **where it says Standard, use the drop-down to select Entire View.**

18. **Click on the Colour** box in the **Marks** card and **select Edit Colours...** From the Select Colour Palette drop-down you can see a list of various colour palettes you could select for your graph, but let's create our own colour palette to add to this list. **Click on Cancel for now.**

19. First, we need to come up with a new colour palette. A great resource is to use the ColorBrewer website: http://colorbrewer2.org Open up your browser and go to this website.

20. For **Number of data classes (top left) select 4**. **For Nature of your data, select qualitative**. Then **select a colour scheme** you like from the options. Below, you will see the HEX values (i.e., # followed by a unique set of letters and numbers to represent a particular colour). We are going to use these hex values in the next step, so keep this window open.

21. Next, we have to edit the Preferences.tps file that is installed with Tableau. On a PC by default, the file is found in **My Documents/My Tableau Repository folder. Go there.** (If you are unsure where your repository folder is on your computer, in Tableau, go to the File menu, and then select Repository Location... to find the path.)

22. **Right click on the Preferences.tps file and select Edit with Notepad++** (if you have Notepad++ installed or open it in a text editor of your choice).

23. Right after <workbook> in the file (i.e., between the workbook tags), add the following text (filling in the HEX values for the colour palette you picked from the ColorBrewer website):

```
<preferences>
<color-palette name='My_Colour_Palette' type='regular'>
<color>#66c2a5</color>
<color>#fc8d62</color>
<color>#8da0cb</color>
<color>#e78ac3</color>
<color>#a6d854</color>
</color-palette>
</preferences>
```

24. **Save the file and close it.**

25. Back in Tableau, **go to the File menu, and click on Save** to save your workbook.

26. **Close Tableau and then restart it. Select your recent project from the Tableau start screen under Open** to go back to your current project.

27. **Go to the Line Worksheet**, if not selected**.**

28. **Click on the Colour** box in the **Marks** card and **select Edit Colours...** From the Select Colour Palette drop-down, you should see your new customized colour palette. **Select it and then click on Assign Palette.** Then **click on OK.** Your new customized colour palette should be applied to the graph.

Dynamically Change Visualizations in a Dashboard Based on User-Input

29. Let's create a couple of bar graphs to use in our dashboard. The first one is Sales by Sub-Category. **Click on the new worksheet icon at the bottom of the screen. Rename this one to "Sales".**

30. **Drag the Sales variable** (**Measures**) **next to columns** and the **Sub-category variable** (**Dimensions**, under **Product**) **next to rows**.

31. From the top ribbon **where it says Standard, use the drop-down to select Entire View.**

32. Now let's create a second bar graph, Profit by Sub-Category. **Click on the new worksheet icon at the bottom of the screen. Rename this one to "Profit".**

33. **Drag the Profit variable** (**Measures**) **next to columns** and the **Sub-category variable** (**Dimensions**, under **Product**) **next to rows**.

34. Also, **drag the Profit variable** (**Measures**) on to the **Colour** box in the **Marks** card to colour-code the bars, highlighting gains and losses.

35. Again, from the top ribbon **where it says Standard, use the drop-down to select Entire View.**

36. Next, we need to create a parameter to ask the user which bar graph they want to see in our dashboard. **Right click on white space in the Dimensions or Measures section** (if there is no white space, drag the top edge of the Measures section to create some), and **select Create Parameter...**

37. **Name it "Preference". Change Data type to String.**

38. **For Allowable values, select List. Add two items: Sales and Profit, by typing them into the cells below in the Value column. Then click on OK.**

39. Next, we need to have the control display to ask for user input. **Right click on the Preference parameter from the Parameters section** (below the Dimensions and Measures sections on the left), and **select Show Parameter Control.** You should see it on the far right. **Change it to Profit** for now.

40. Next, we need to create a variable that holds the value of the user's preference. **Right click on white space in the Dimensions or Measures section**, and **select Create Calculated Field...**
41. **Name the field "Preference". Drag the Preference parameter from the Parameters section into the text box for the calculation**.
42. **Click on OK** to save the new field. It should show up under Dimensions.
43. Next, we use that field to act as a filter to only display a certain bar graph that the user wants to see. **Drag the Preference field** (**Dimensions**) **to the Filters shelf.**
44. **Select Profit** from the list of options, as we are currently in the Profit worksheet, and **click on OK**.
45. Next, go to the Sales worksheet to set up the parameter controls and filter there as well. **Right click on the Preference parameter from the Parameters section** (below the Dimensions and Measures sections on the left), and **select Show Parameter Control.** You should see it on the far right. **Change it to Sales**.
46. Next, **drag the Preference field** (**Dimensions**) **to the Filters shelf.**
47. **Select Sales** from the list of options, as we are currently in the Sales worksheet, and **click on OK**.
48. Now we are ready to create our dashboard. **Click on the create new dashboard icon at the bottom, next to the new worksheet icon.**
49. **Drag Horizontal from under Objects into the dashboard**. This is a container to help us lay out the elements in our dashboard.
50. Then **drag the Sales sheet into the container on the dashboard**.
51. Then **drag the Profit sheet to the top of the Sales graph on the dashboard**.
52. **For the Profit sheet, click on the down arrow** to the top right of the box for more options, and **de-select Title** to hide it. **Do the same for the Sales sheet.**
53. You can also **click on the x at the top right of the Profit legend** on the right to get rid of it.
54. Now, when you change the parameter, the appropriate bar graph should appear.

And that's it! If you need more help using Tableau there are links in the Data Viz Guide to Tableau's online tutorials to help you go further: https://mdl.library.utoronto.ca/dataviz/tools-tutorials#generalvisualizationtools.