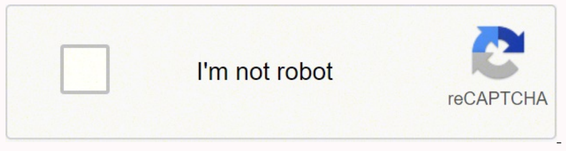


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# Tableau calculated field examples pdf file downloads online

To help you become more efficient with creating and editing calculated fields in Tableau, this article lists several tips for working in the calculation editor. Drag and drop fields into the calculation editor When creating fields in the calculation editor, you can drag existing fields from the Data pane into the editor at any time. Drag and drop formulas from the calculation editor to the Data pane When typing a calculation in the calculation editor, you can highlight all or part of the formula and drag it to the Data pane to create a new calculated field. You can then rename the field by typing a name. For more information, see Ad-Hoc Calculations(Link opens in a new window). Use the functions reference in the calculation editor When typing a calculation in the calculation editor, you can use the functions reference to browse all the functions available in Tableau. To open the functions reference: In the calculation editor, click the triangle icon on the right-side of the editor. To add a function from the reference to a formula: In the function reference, double-click a function. Take advantage of auto-complete for formulas As you type a formula in the calculation editor, Tableau suggests options to complete items in your formula. Tableau suggests functions, fields in your data source, parameters, sets, and bins that begin with or contain the string you type. The list of suggestions update as you type. To add an item from auto-complete to a formula: Press Enter on your keyboard to select the highlighted suggestion. Note: You can use the up and down arrows on your keyboard to move between items in the auto-complete list. Drag table calculations into the calculation editor to edit them When you create a table calculation, you can drag it into the calculation editor to review or make changes to the formula. To edit a table calculation in the calculation editor: Click the Data pane drop-down and select Create Calculated Field. From the worksheet, drag the table calculation into the calculation editor. When finished, click OK. Resize text in the calculation editor You can adjust the size of the text in the calculation editor as you create or edit calculations. To increase text size in the calculation editor: Press the CTRL and + keys on your keyboard (Command + on a Mac) To decrease text size in the calculation editor: Press the CTRL and - keys on your keyboard (Command - on a Mac). Note: Text size persists until you close the editor. The next time you open the editor, text is at the default size. See which sheets are using a calculated field As you edit a calculated field, you can click Sheets Affected to see which other sheets are using the field. These sheets will also be updated when you commit your changes. Applies to: Tableau Desktop, Tableau Online, Tableau Public, Tableau Server This article describes how to create and use calculated fields in Tableau using an example. You'll learn Tableau calculation concepts, as well as how to create and edit a calculated field. You will also learn how to work with the calculation editor, and use a calculated field in the view. If you're new to Tableau calculations or to creating calculated fields in Tableau, this is a good place to start. Why Use Calculated Fields Calculated fields allow you to create new data from data that already exists in your data source. When you create a calculated field, you are essentially creating a new field (or column) in your data source, the values or members of which are determined by a calculation that you control. This new calculated field is saved to your data source in Tableau, and can be used to create more robust visualizations. But don't worry: your original data remains untouched. You can use calculated fields for many, many reasons. Some examples might include: To segment data To convert the data type of a field, such as converting a string to a date. To aggregate data To filter results To calculate ratios Types of calculations You create calculated fields using calculations. There are three main types of calculations you can use to create calculated fields in Tableau: Basic calculations - Basic calculations allow you to transform values or members at the data source level of detail (a row-level calculation) or at the visualization level of detail (an aggregate calculation). Level of Detail (LOD) expressions - Just like basic calculations, LOD calculations allow you to compute values at the data source level and the visualization level. However, LOD calculations give you even more control on the level of granularity you want to compute. They can be performed at a more granular level (INCLUDE), a less granular level (EXCLUDE), or an entirely independent level (FIXED) with respect to the granularity of the visualization. For more information, see Create Level of Detail Expressions in Tableau(Link opens in a new window). Table calculations - Table calculations allow you to transform values at the level of detail of the visualization only. For more information, see Transform Values with Table Calculations(Link opens in a new window). The type of calculation you choose depends on the needs of your analysis and the question you want to answer. Create a calculated field Once you have determined the type of calculation you want to use, it's time to create a calculated field. This example uses a basic calculation. Note: The example in this article uses the Sample-Superstore data source that comes with Tableau Desktop. To follow along with the steps in this article, connect to the Sample-Superstore saved data source and navigate to Sheet 1. In Tableau, select Analysis > Create Calculated Field. In the Calculation Editor that opens, do the following: Enter a name for the calculated field. In this example, the field is called, Discount Ratio. Enter a formula. This example uses the following formula: IIF([Sales] !=0, [Discount]/[Sales],0) This formula checks if sales is not equal to zero. If true, it returns the discount ratio (Discount/Sales); if false, it returns zero. Tip: To see a list of available functions, click the triangle icon on the right-side of the Calculation Editor. Each function includes syntax, a description, and an example for your reference. Double-click a function in the list to add it to the formula. For more tips, see Tips for Working with Calculated Fields in Tableau. When finished, click OK. The new calculated field is added to Measures in the Data pane because it returns a number. An equal sign (=) appears next to the data type icon. All calculated fields have equal signs (=) next to them in the Data pane. Use a calculated field in the view Step 1: Build the view From Dimensions, drag Region to the Columns shelf. From Dimensions, drag Category to the Rows shelf. On the Rows shelf, click the plus icon (+) on the Category field to drill-down to Subcategory. The view updates to look like this: Step 2: Add the calculated field to the view From Measures, drag Discount Ratio to Color on the Marks card. The view updates to highlight table. You can see that Binders are heavily discounted in the Central region. Notice that Discount Ratio is automatically aggregated as a sum. On the Rows shelf, right-click SUM(Discount Ratio) and select Measure (Sum) > Average. The view updates with the average of discount ratio shown. Edit a Calculated Field If at any time you need to change a calculation, you can edit the calculated field and it will update across your entire workbook. To edit a calculated field: In the Data pane, right-click the calculated field and select Edit. In the Calculation Editor that opens, you can do the following: Edit the name of the calculated field. Update the formula. For this example, the formula is changed to return a discount ratio for orders over 2000 USD in sales: IIF([Sales] > 2000, [Discount]/[Sales],0) Click OK. The view updates to reflect the changes automatically. You do not need to re-add the updated calculated field to the view. See Also Understanding Calculations in Tableau(Link opens in a new window) Formatting Calculations in Tableau(Link opens in a new window) Functions in Tableau(Link opens in a new window) Create Level of Detail Expressions in Tableau(Link opens in a new window) Transform Values with Table Calculations(Link opens in a new window) Thanks for your feedback! Published: 30 Nov 2015 Last Modified Date: 25 Jun 2020 How to filter one or more fields without filtering the entire view. Tableau Desktop Create a logic calculation by using an IF / THEN statement to return a measure for only certain dimension values. The dimension value could be hard-coded or could be dynamically defined with a parameter or set.The directions below start from the worksheet "Original" in the workbook "", which is downloadable from the right-hand pane of this article. Directions for creating the worksheet "Original" and demonstrations of all of the variations are also included in the workbook. Select Analysis > Create Calculated FieldIn the Calculated Field dialog box that opens, do the following, and then click OK: Name the calculated field. In this example, the calculated field is named "Sales Label (variation 1)"In the formula field, create a calculation similar to the following: IF DATEPART('year', [Order Date]) = 2019 THEN [Sales] END The above calculation will return the measure [Sales] if the [Order Date] is in the year 2019. Otherwise the calculation will return NULL. An "ELSE 0" could be added before the "END" to return zero instead of NULL. Other conditions could be used such as [Order Date] = #1/1/2019# to filter to a specifc date, or [Segment] = "Consumer" to filter to a specifc text value. The important part is to make sure the value after the equal sign is the same type of data as the dimension. Replace [Sales] on Label with [Sales Label (variation 1)] Select Analysis > Create Calculated FieldIn the Calculated Field dialog box that opens, do the following, and then click OK: Name the calculated field. In this example, the calculated field is named "Year of Order Date"In the formula field, create a calculation similar to the following: DATEPART('year', [Order Date]) Steps 1 & 2 create a field that contains only the year date part of [Order Date] as an integer value. The [Year of Order Date] field makes it easier to create a parameter, but otherwise is not necessary In the data pane, right-click the [Year of Order Date] field and select Create > Parameter…In the Create Parameter dialog box do the following and click OK In the Name text box, type a name. In this example I will call the parameter "Select a year"Under Properties, in the Data type list, select integerUnder Allowable values, select ListIn the Display Format dropdown, select Number (custom) and set the format to 0 decimal places and uncheck include thousands separators Starting in Tableau Desktop 2020.1 parameters can pull list values from a field in the data source by selecting a field in the When workbook opens dropdown. Right-click [Select a year] in the data pane and select Show Parameter ControlCreate a calculated field with a name like "Sales Label (variation 2)" with a calculation similar to the following: IF DATEPART('year', [Order Date]) = [Parameters].[Select a year] THEN [Sales] END Note: The syntax "[Parameters]." is automatically added when a parameter has the same name as another field in the data source.Replace [Sales] on Label with [Sales Label (variation 2)] Starting in Tableau Desktop 2020.2, set controls can be shown to allow end users to change the values in sets. Select Analysis > Create Calculated FieldIn the Calculated Field dialog box that opens, do the following, and then click OK: Name the calculated field. In this example, the calculated field is named "Year of Order Date"In the formula field, create a calculation similar to the following: DATEPART('year', [Order Date]) Right-click [Year of Order Date] and select Convert to Dimension Steps 1-3 create a dimension that contains only the year date part of [Order Date] as an integer value. The [Year of Order Date] field is required to make a set of years because sets must be built off of fields in the data source.In the data pane, right-click the [Year of Order Date] field and select Create > Set…Give the set a name and click OK. In this example, the set is named "Select a year"Create a calculated field with a name like "Sales Label (variation 3)" with a calculation similar to the following: IF [Select a year] THEN [Sales] END The above calculation will return the measure [Sales] if the [Order Date] is in a user selected year. Otherwise the calculation will return NULL. An "ELSE 0" could be added before the "END" to return zero instead of NULL. Sets are Boolean fields that return either TRUE or FALSE. Therefore the set by itself is the entire condition.Replace [Sales] on Label with [Sales Label (variation 3)]Right-click the set [Select a year] in the data pane and check Show Set Parameters can only hold a single value, whereas set controls allow for multi-select.Parameters can hold any arbitrary values, whereas sets are always tied to a field in the data source. Although those field values can be re-aliased.Parameters can be used to filter across data sources that have no relationship. See Filtering Across Multiple Data Sources Using a Parameter Sets can only filter across data sources when there is a relationship set up between data sources. See Filter Data Across Multiple Data SourcesParameters can be used in dashboard text objects or titles, whereas sets (or calculated fields using sets) can only be used in worksheets elements because sets are part of the data source.Sets will always update when new data is brought into the data source. Parameters can be set up to bring in new data. See step 5 in Create Parameters This solution can be nested inside of other calculations. For example, it might be included in level of detail (LOD) calculation like{INCLUDE [Dimension]: SUM(IF [Dimension] = 'FilterValue' THEN [Non-Aggregated Measure] END)}Discuss this article… Feedback Forum