

Numeric Calculations

Connect to New data set for numeric calculation –“Numeric Calculation”

Example 1: How to convert Null values to Zeros using calculated field

- Drag State to Rows
- Targets to Columns. Show labels.
- Notice blanks
 - Create calculated field `zn([Targets])` Call it Corrected targets

Example 2: To view budget Vs sales for each state –using bullet graph

- Step 1: Create Calculated field: `sum([Sales]) - sum([Corrected Targets])` call it “Salesless targets”
- Step 2: Create bullet chart –CNTRL (Sales, Corrected targets & state)
- Step 3: Swap Axis if required
- Step 4: Drag Calculated field “Salesless targets” to Colors

String Calculations:

Connect to Data Set: Sample - Superstore Subset (Excel)

Select - Orders Sheet

Example 1: (Adding 2 strings fields)

- Step 1: `[Customer Name] + ' ' + [Customer Segment]`
 - Drag this to Rows to test if the calculation works

Example 2: (Adding 2 String fields and a numeric field)

- Step 1: `[Customer Name] + ' ' + [Customer Segment] + ' ' + [Order ID]`
Notice error in calculated field. Need to convert numeric value [Order ID] to string by using Type conversions
- Step 2: `[Customer Name] + ' ' + [Customer Segment] + ' ' + str([Order ID])`
 - Drag and drop this to the Rows to test it

Example 3: (How to Separate first name from last name) –By using the space

Step 1: Drag Customer Name to Rows. Understand how Space differentiates the first from last names

Step 2: To find the character value that will take you to the space. Create calculated field “Finding Space”:

- `find([Customer Name], ' ')`

Step 3: Create another calculated field “First name”:

- `LEFT([Customer Name],[Finding Space]-1)`

Date Calculations:

Example 1: How to convert a string into a date field

Connect to excel file “Date Calculation” and select Sheet “Date as Integer”

- Step 1: Drag and drop Date to rows and understand the way it is arranged
- Step 2: Logic applied:
 - To convert the Integer into a string
 - Break the string into three using, left, Mid & Right function
 - Reconstruct the three parts of the date as integer Using Makedate() function, arrange them as proper dates
- Step 3: Create Calculated field “Date V1” : str([Date])
- Step 4: Create Calculated field “Year”: (left([Date V1],4)
- Step 5: Create Calculated field “Month”: (mid([Date V1],5,2)
- Step 6: Create Calculated field “Day”: (right([Date V1],2)
- Step 7: Convert all the three fields into integers again using Type conversion
 - int(Year),
 - int(Month)
 - int(Day)
- Step 8: Reorganize the three fields using the MAKEDATE function. Calculated field: MAKEDATE([Year],[month],[Day])
- Step 9: Test and see if the calculation is valid and you have a valid date field.

Example 2: Question is how many days does it take to ship orders my order?? Idea is to subtract two date fields Order date & ship date and get the output in terms of no of days.

Connect to Data Set: Sample - Superstore Subset (Excel)

Select - Orders Sheet

- Step 1: Create a Filled map using “State or Province”
- Step 2: Create calculated field datediff('day',[Ship Date], [Order Date])
- Step 3: Drag and drop calculated field to color
- Step 4: Now it shows Sum (Calculated field). Change it to Avg(Calculated field)
- Step 4: Edit Color to “Red to green “and reverse it.

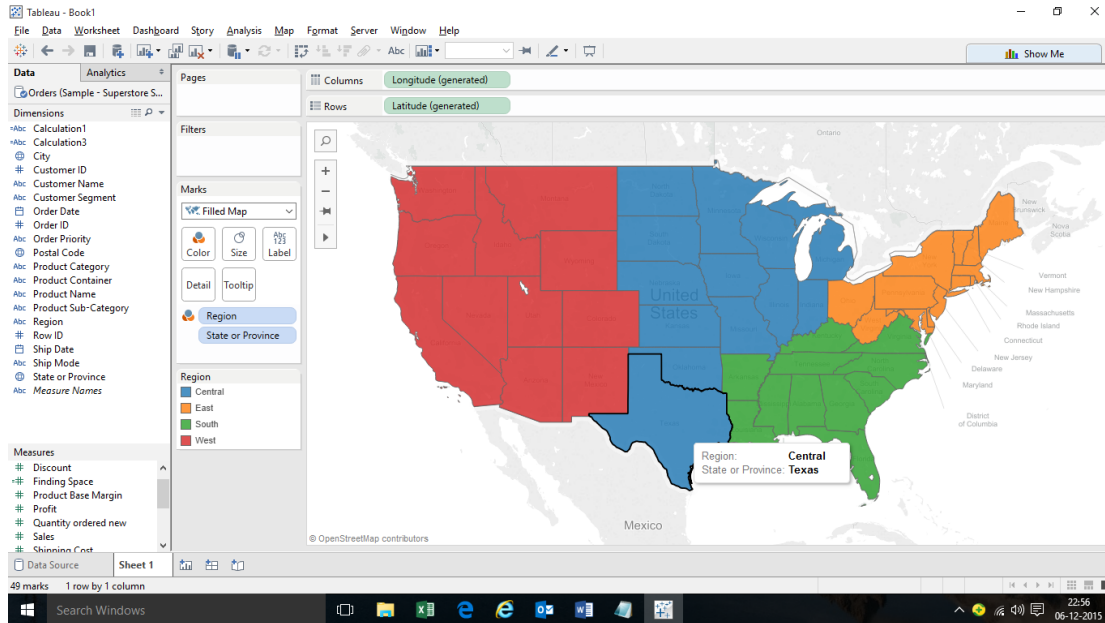
Logical Calculation:

Example 1: How to reclassify states with regions (Using CASE Function)

Step 1: Create filled map using “State or Province”

Step 2: Drag “Region” to Colors

Step 3: To convert Texas from “Central” to “South” ; Michigan from “Central” to “East”



Step 4: CASE [State] when "Texas" then "South" when "Michigan" then "East" else [Region] end

Step 5: Drag this calculated field to Colors

Example 2: How to reclassify states with regions (Using IF Function)

Step 1: Create filled map using "State or Province"

Step 2: Drag "Region" to Colors

Step 3: To convert Texas from "Central" to "South" ; Indiana from "Central" to "East"

Step 4: IF [State] = 'Texas' Then 'South'

ELSEIF [State] = 'Indiana' then 'East'

ELSE [Region]

End

Step 5: Drag this Calculation to Colors