# Getting Started with Tableau <br> Lab\#8 Replacing a Data Source 

## Description:

BISP is committed to provide BEST learning material to the beginners and advance learners. In the same series, we have prepared a complete end-to end Hands-on Beginner's Guide for Tableau. The document focuses on replacing data source runtime. Join our professional training program and learn from experts.

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## Replacing a Data Source

Replacing the data source used in a Tableau workbook allows you to point your workbook to a new data source and re-compute all your results using the new data. This method, however, works only if the new data source shares the same format as the original data source. If the format of the new data source is different than the current data source, you may see changes to custom sets, groups, and calculated fields that depend on the fields in the original data source.
For the clarification we can take a example. Here we the data model in which the SalesTax till year 2000 is charged different and after year 2000 the sales tax Increased. We are going to prepare the common report for both the data because almost we have to do the same calculations so, what will be the sense of making same report twice. For this type of purposes tableau gives the facility to replace a data source.
Step 1)Import the excel sheet product_Till2000 from the excel data source.


Step 3: Does the data include field names in the first row?
(O) Yes, the first row has field names in it.
( No, automatically generate names for the fields.

Step 4: Give the connection a name for use in Tableau:
Product_Till2000 (Product of 2012.xlsx)


Cancel

Step 2)Now all the fields will get imported in the worksheet.


Step 3) Then drag and drop the productname and introductiondate from measures to rows shelf.

| \#Rows | ProductName | MDY(IntroductionDat.. |
| :--- | :--- | :--- |

Step 4)Now we have to calculate the selling price of the product which will be calculated by including sales tax charged on each product individually.

Step 5)Add the expression as given below


Calculated Field [SellingPrice]
ㅁ

Name: SellingPrice
Formula:
(sum $([$ ProductionCost $])+((\operatorname{sum}([$ ProductionCost])*sum $([$ SalesTax] $)) / 100))$
(sum(productioncost)+(sum(salestax)*sum(productioncost))/100) this will calculate the selling price and an separate field as named Selling price.

Step 6)In order to add this calculated field in the sheet, add right click on the SellingPrice and choose the option add to sheet.

|  | Add to Sheet |
| :---: | :---: |
|  | Show Quick Filter |
|  | Cut |
|  | Copy |
|  | Paste |
|  | Edit... |
|  | Duplicate |
| - | Rename... |
| \# SellingPrice | Hide |
|  | Delete |
|  | Group by * |
|  | Create Folder (use Group by Folder) |
|  | Create Calculated Field... |
|  | Create Parameter... |
|  | Convert to Discrete |
|  | Geographic Role * |
|  | Default Properties * |
|  | Replace References... |
|  | Describe... |

Step 7)This will add the calculation of sellingprice in the sheet.
The same procedure will done with the production cost. Click right on the productioncost and choose the option add to sheet.

| Add to Sheet |
| :--- | :--- |
| Show Quick Filter |
| Cut |
| Copy |
| Paste |
| Edit... |
| Duplicate |
| Rename... |


| Measures |
| :--- |
| \# Margin |
| \# ProductionCost |
| \# SalesTax |
| \#\# SellingPrice |

Step 8)Now the table will be created which including the Productname, introductiondate, Production cost and sellingprice. Till year 2000 the company charging the sale tax on product
results this chart. From year 2000 company decrease the sales tax on the products. Here is the sheet displaying the selling price , production cost and introduction year.
Title Selling price Included With Tax(Till Year 2000)

| ProductName | Year of Introdu.. | ProductionCost | SellingPrice with Sales T.. |  |
| :---: | :---: | :---: | :---: | :---: |
| Bear Edge | 1990 | \$23.53 | \$24.00 | - |
| Bear Survival Edge | 1995 | \$45.00 | \$46.80 |  |
| Blue Steel Max Putter | 1998 | \$81.80 | \$85.07 |  |
| Blue Steel Putter | 1998 | \$60.00 | \$61.20 | 三 |
| Calamine Relief | 1990 | \$3.00 | \$3.12 |  |
| Canyon Mule Carryall | 1992 | \$41.18 | \$42.83 |  |
| Canyon Mule Climber .. | 1992 | \$62.50 | \$65.63 |  |
| Canyon Mule Cooler | 1990 | \$24.00 | \$24.72 |  |
| Canyon Mule Extreme .. | 1992 | \$238.88 | \$246.05 |  |
| Canyon Mule Journey .. | 1990 | \$213.33 | \$217.60 |  |
| Canyon Mule Weekend.. | 1990 | \$166.66 | \$169.99 |  |
| Compact Relief Kit | 1990 | \$16.43 | \$16.92 |  |
| Course Pro Gloves | 1998 | \$5.00 | \$5.10 |  |
| Course Pro Golf and T.. | 1999 | \$6.00 | \$6.18 |  |
| Course Pro Golf Bag | 1998 | \$80.00 | \$84.00 |  |
| Course Pro Putter | 1998 | \$35.00 | \$36.05 |  |
| Course Pro Umbrella | 1999 | \$6.00 | \$6.24 |  |
| Deluxe Family Relief Kit | 1992 | \$25.00 | \$25.50 |  |
| Double Edge | 1990 | \$11.43 | \$11.89 |  |
| Edge Extreme | 1995 | \$80.00 | \$84.00 |  |
| EverGlow Butane | 1992 | \$40.63 | \$41.85 |  |
| EverGlow Double | 1992 | \$28.75 | \$29.61 |  |
| EverGlow Kerosene | 1992 | \$20.00 | \$20.80 |  |
| Emortlaw 1 amn | 1000 | *1707 | -1009 | - |

Step 9 )Now we require the data which having entry after the year 2000 which is in the data source MS SQL Server. Select the database Server test1 and select the table Product_from2000 then click ok.


Step 10) Now choose the option connect live.

| Data Connection |
| :--- |
| Select how you want to connect to your data. |

## Connect live <br> Connect directly to your data. The speed of your data source will determine performance.

## Import all data

Import all of your data into Tableau's fast data engine.


Import some data
Select a subset of your data to import into Tableau's fast data engine.
$\square$ Always do this for Microsoft SQL Server Learn More

Step 11)This is the data till 2000, now we have to replace this data source from the Sql Server data source containing the data from the year 2000. We use the data replacing feature of the tableau.F or replacing the data source go to the data and choose the option Replace Data

| File | Data | Worksheet | Dashboard |
| :--- | :--- | :--- | :--- |
| Connect to Data... | Analysis | Map | Formi |
| Caste Data | CtrI +D |  |  |
|  | Refresh All Extracts... | Ctrl +V |  |

Edit Relationships...
Replace Data Source...
Step 12) In the option, current sheet on which we had made the report of sales tax will be replaced with the report containing the data from the year 2000. This will only replace the data all the design will be similar.
Then press ok.

Step 13)Now see the chart the sellingprice and year of introduction varied. This sheet is displaying the

## Replace Data Source

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The data source will be replaced in all worksheets and dashboards.

Current:

Replacement:


OK selling price with the increasing salesprice.

Title Selling price Included With Tax(From Year 2000)

| ProductName | Year of Introdu.. | ProductionCost | SellingPrice with Sales T.. |  |
| :--- | ---: | ---: | ---: | ---: |
| Bear Edge | 2001 | $\$ 23.53$ | $\$ 24.47$ |  |
| Bear Survival Edge | 2003 | $\$ 45.00$ | $\$ 47.70$ |  |
| Blue Steel Max Putter | 2004 | $\$ 81.80$ | $\$ 86.71$ |  |
| Blue Steel Putter | 2004 | $\$ 60.00$ | $\$ 62.40$ |  |
| Calamine Relief | 2001 | $\$ 3.00$ | $\$ 3.18$ |  |
| Canyon Mule Carryall | 2002 | $\$ 41.18$ | $\$ 43.65$ |  |
| Canyon Mule Climber .. | 2002 | $\$ 62.50$ | $\$ 66.88$ |  |
| Canyon Mule Cooler | 2001 | $\$ 24.00$ | $\$ 25.20$ |  |
| Canyon Mule Extreme .. | 2002 | $\$ 238.88$ | $\$ 250.82$ |  |
| Canyon Mule Journey .. | 2001 | $\$ 213.33$ | $\$ 221.86$ |  |
| Canyon Mule Weekend.. | 2001 | $\$ 166.66$ | $\$ 173.33$ |  |
| Compact Relief Kit | 2001 | $\$ 16.43$ | $\$ 17.25$ |  |
| Course Pro Gloves | 2004 | $\$ 5.00$ | $\$ 5.20$ |  |
| Course Pro Golf and T.. | 2004 | $\$ 6.00$ | $\$ 6.30$ |  |
| Course Pro Golf Bag | 2004 | $\$ 80.00$ | $\$ 85.60$ |  |
| Course Pro Putter | 2004 | $\$ 35.00$ | $\$ 36.75$ |  |
| Course Pro Umbrella | 2004 | $\$ 6.00$ | $\$ 6.36$ |  |
| Deluxe Family Relief Kit | 2002 | $\$ 25.00$ | $\$ 11.43$ | $\$ 80.00$ |
| Double Edge | 2001 | $\$ 40.63$ | $\$ 12.12$ |  |
| Edge Extreme | 2003 | 2002 |  | $\$ 85.60$ |
| EverGlow Butane |  |  |  |  |

Step 14) If we want to see the change the variation on the selling price of the both data till year 2000 and from year 2000 you can draw a graph for both in a single sheet.
Step 15) For this firstly we have to create the
Relation between the both data sources's Data.

| Data | Worksheet Dashboard | Analysis | Map | Format |
| :---: | :---: | :---: | :---: | :---: |
|  | Connect to Data... <br> Paste Data |  |  | Ctrl+D |
|  |  |  |  | Ctrl + V |
|  | Refresh All Extracts... |  |  |  |
|  | Edit Relationships... |  |  |  |
|  | Replace Data Source... |  |  |  |
|  | ConversionRate+ (GoSales1 | accdb) |  | - |
|  | ConversionRate+ (GoSales1 | ccdb) (co |  | * |
| $\checkmark$ | ConversionRate+ (GoSales1.accdb) (copy) |  |  |  |

Step 16) This will explore a window which ask for primary and secondary data source. Here Product_Till2000 will be our primary data source and Product_from2000 will be our secondary datasource. The join will be created using the productname which is same in both tables.


Step 17) Now the join will
Created here between the two places.


Step 18)Drag and drop productname from measure to column shelf.

## : Rows ProductName

Step 19) Then create a calculate field by right click on the sheet and choose the option create calculated field.

## Add to Sheet

Show Quick Filter
Copy
Paste
Duplicate
Rename...
Hide
Create Folder...
Create Calculated Field...
Create Group...
Create Bins...
Create Parameter...
Convert to Discrete
Convert to Dimension
Change Data Type
Geographic Role
Default Properties
Step 20)For selling price add the expression and give the name productioncosttill2000

(sum(productioncost)+(sum(salestax)*sum(productioncost))/100) this will calculate the selling price and an separate field as named Selling price.then apply and then ok.
Step 21) Do the same procedure with the field salestax of the product from 2000.


Step 22)The both calculated fields are created here.

## =\# ProductionCostFrom2000 <br> =\# ProductionCostTill2000

Step 23) By pressing cntrl key select both and right click on the measure shelf and choose the option add to sheet.

| Add to Sheet |  |
| :--- | :--- |
| Show Quick Filter |  |
| Cut |  |
| Copy |  |
| Paste |  |
| Edit... |  |
| Duplicate |  |
| Rename... |  |
| Hide |  |
| Delete |  |
| Group by |  |
| Create Folder (use Group by Folder) |  |
| Create Calculated Field... |  |
| Create Parameter... |  |
|  | Convert to Discrete |
| Geographic Role |  |
| Default Properties |  |
|  | Replace References... |



Step 25)The below chats shows data taken from Excel and SQL Server, Selling price revised due to increase in Sales Tax.


