

Tips and Tricks

A step by step guide to boost your BI skills

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TIP #1

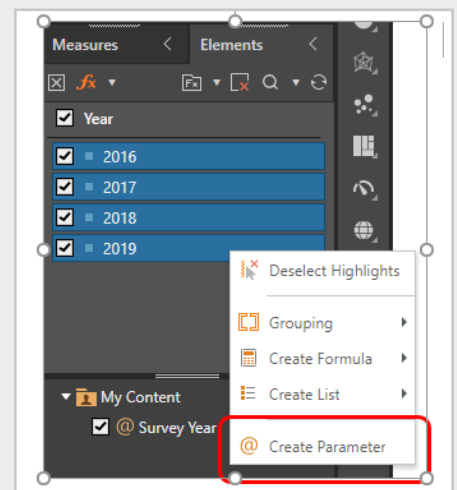
Create a Growth % calculation using a Parameter

In the following scenario the requirement is to calculate the year on year growth % based on the selected year. In the following Discover report the Survey Year is display both as a filter and a column in the grid view. In this example the Survey Year is a Formulate – Parameter.

The Growth % calculation is based on the selected survey year and the previous survey year.

Country	2019	% Growth
Australia	25,365,571	↑ 1.49%
Canada	37,593,384	↑ 1.43%
France	67,158,585	↑ 0.23%
Germany	83,005,244	↑ 0.27%
United Kingdom	64,748,862	↓ -2.28%
United States	331,433,217	↑ 0.32%

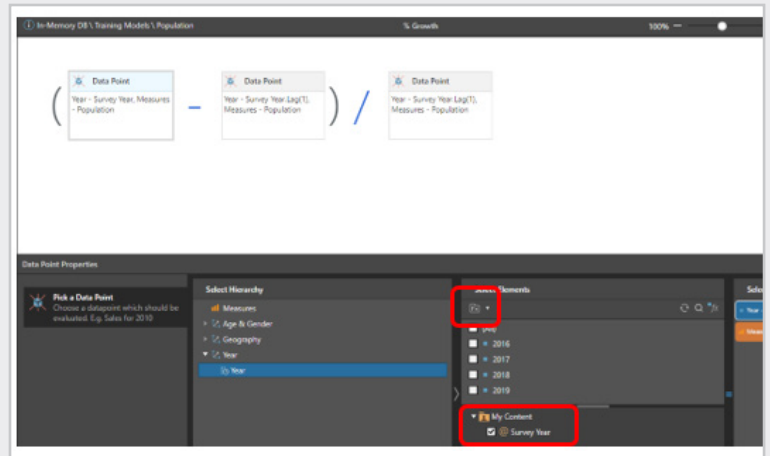
- 1 The first step is to create a parameter based on the survey years. Select the required year and use the right-click menu option to create a Parameter. Select the created Parameter and use the right-click menu option to make the parameter Shareable – this mean you can re-use the same parameter in other Discover reports based on the same model.



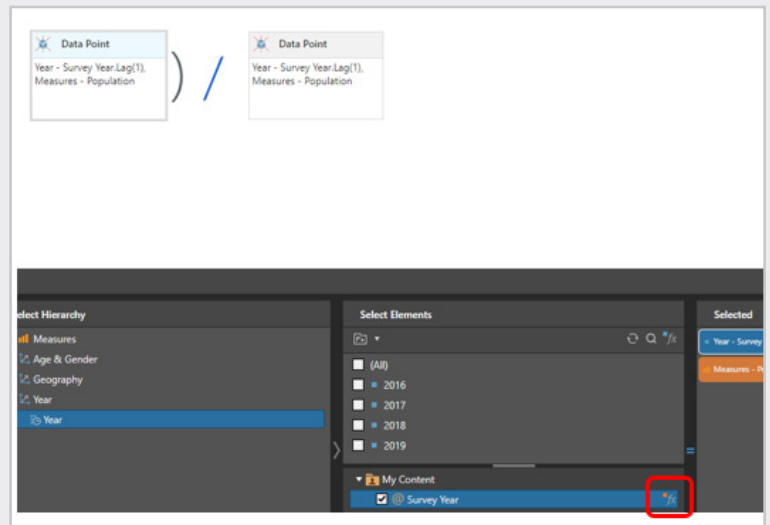
- 2 The next step is to create the Growth % calculation. Create a new Formulate – Formula object and select the appropriate data model.

The Growth % calculation is;

(Population [Measure] for the selected Survey Year [Year Parameter]) – ((Population [Measure] for the selected Survey Year [Year Parameter - 1]) / ((Population [Measure] for the selected Survey Year [Year Parameter - 1]))

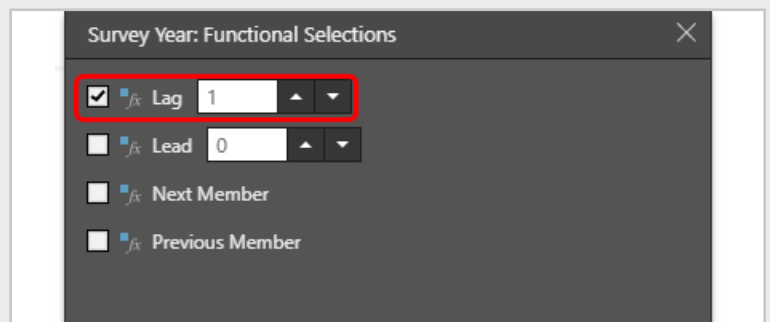


- 3 Add a Data Point and select the following:
- Measure = Population
 - Year = Survey Year parameter



- 4 Subtract a second Data Point based on the following selections:
- Measure = Population
 - Year = Survey Year parameter. Lag(1)
- Use the fx selection button to select Lag (1)

- 5 Test and save the % Growth formulate object.



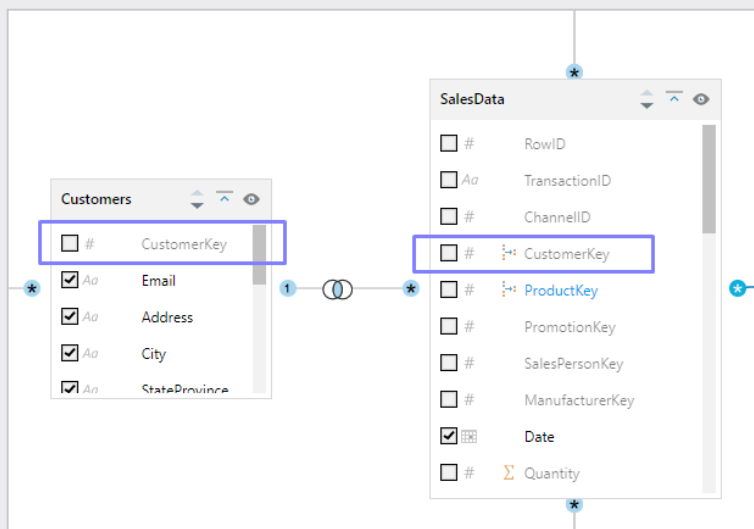
- 6 Add the % Growth measure to the Discover report. Since the calculation is based on the Survey Year parameter the parameter will automatically be added to the Discover report as a filter.

Adding a “Distinct Count” measure against a “Dimension” key in “Model”

In this scenario we will provide a method to create a “Distinct Count” measure within a “Model” based upon a column used for a dimensional relationship. This method allows for the measure to be created with a “business friendly” naming convention without affecting the column name used by the key relationship within the model.

In this example we will create a “Customer Count” measure. Our model contains a number of tables, the central “Fact” tables named “SalesData” contains our sales based metric data, in addition it has “key” fields that are used for the dimensional breakdown of the metrics.

- 1 One of these is called “CustomerKey” that is used to link to the “Customer” dimension table



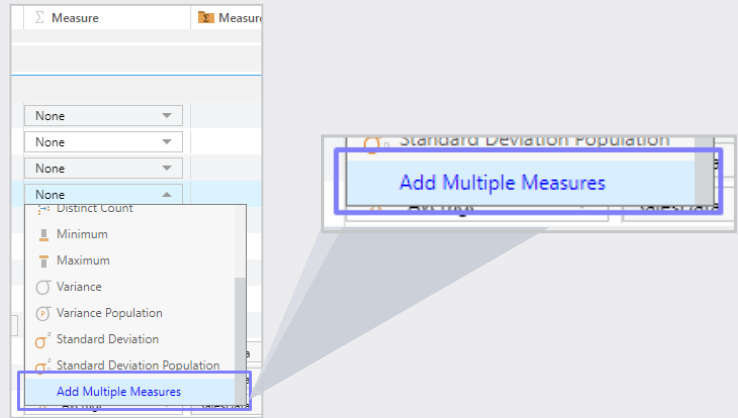
- 2 Our requirement is to have a count of customers based upon the “SalesData” fact table.

The most natural (and simplest) way to do this would be to go into “Columns” in the “Model” definition and select “Distinct Count” in the measure column against the “CustomerKey” column. This would create the measure required **BUT** it would have the business unfriendly name of “CustomerKey”, it is possible to rename the column to the measure name **BUT** this would then make the model less intuitive as the Key column names would no longer match.

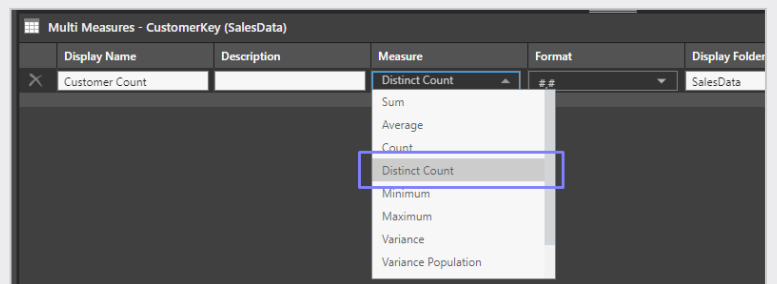
Table	Column	Measure	Aggregation	Filter	Visual	Format
RowID	RowID	None	None	None		
TransactionID	TransactionID	None	None	None		
ChannellID	ChannellID	None	None	None		
CustomerKey	CustomerKey	Distinct Count	None	None	Multi Measures	#, #
ProductKey	ProductKey	None	None	None		
PromotionKey	PromotionKey	None	None	None		
SalesPersonKey	SalesPersonKey	None	None	None		
ManufacturerKey	ManufacturerKey	None	None	None		

- 3 To address this we can use the “Multiple Measures” feature of the “Model” tool,

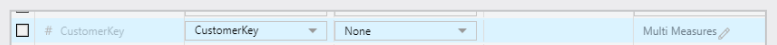
Against the column we wish to create a distinct count for we go into the “Measure” drop down and select “Add Multiple Measures”



- 4 In the “Multiple Measures” dialog, within “Display Name” type your business friendly measure name (in this case “Customer Count”) select “Distinct Count” in the “Measure” drop down and then click on the minimize button (do **NOT** click “Add Measure” as this is used for adding an additional measure not saving the measure you have just added... :)



- 5 This has now added the measure with the friendly name without changing the column name in the data model.



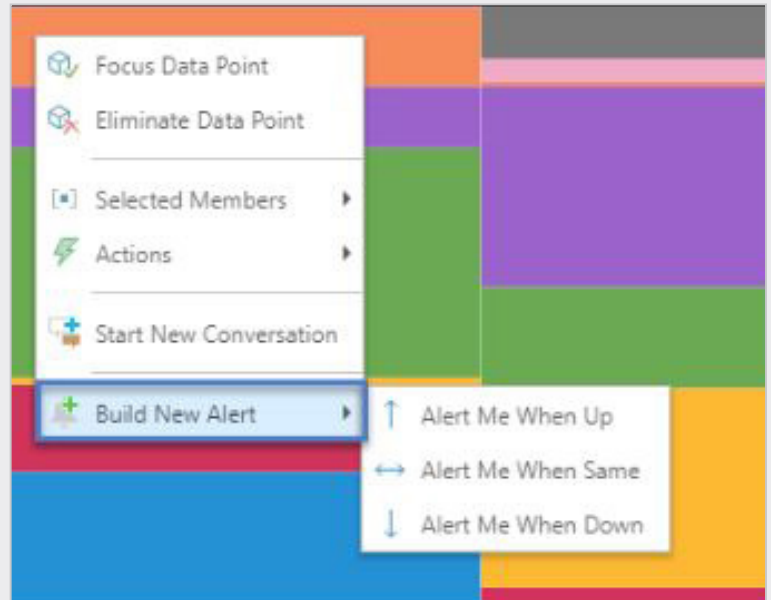
How to Build an Alert

- 1 To build an alert, right click on the relevant data point. From the context menu, go to Build New Alert, and select one of three options:

Alert Me When Up: receive an alert when the value of the selected data point increases.

Alert Me When Down: receive an alert when the value of the selected data point stays the same.

Alert Me When Same: receive an alert when the value of the selected data point decreases.



The Alert Wizard will open, where you can configure the alert.

2 Alerts Wizard

- Name:** by default, the alert is named according to the selected data point, but you can change it.
- When:** set the conditions for what will happen when the selected data point is up, down, or the same.
- Is:** choose Up, Down, or Same.
- Alert Me:** select the icon that should represent the status of the alert when the given conditions are met. For instance, if Sales go up, select the green check mark; if Costs go up, select the red X.
- Run Time:** choose the time and frequency at which the alert job should run.
- Send To:** have the alert sent to the bulletin board or to email.

Click the save button to commit the alerts job.

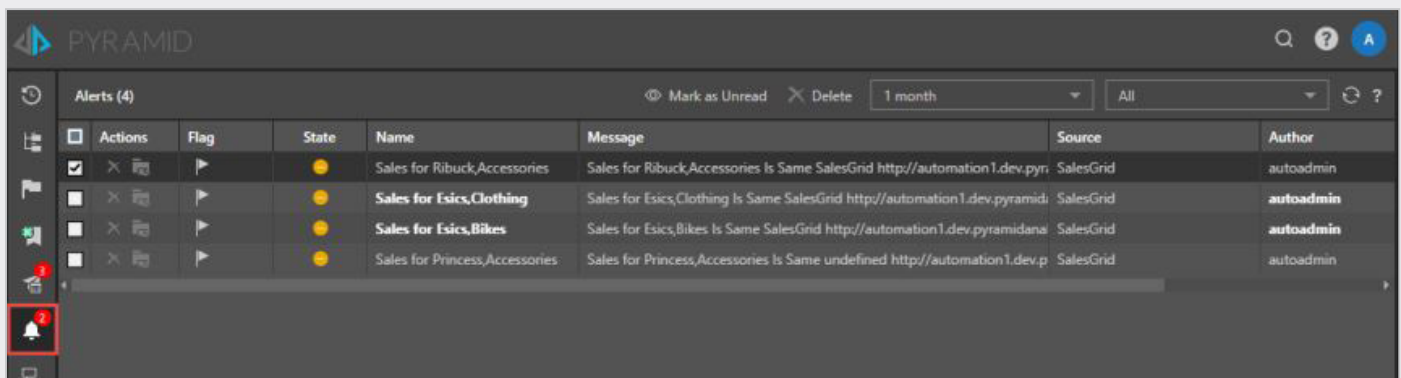
3 Alerts Feed

View your alerts from the Alerts Feed. Each alert listed will display the following information:

- Actions:** from the Actions column, delete the alert or go to the discovery's item location.
- Flag:** flag an alert to remind yourself to take an action.
- State:** displays the status of the given data point; whether the value was up, down, or the same at the time the alert job was run.
- Message:** displays the status of the alert job.
- Source:** the name of the data discovery where the alert was built.
- Author:** the user who built the alert.
- Name:** the name of the alert job. If the alert is unread, the name is displayed in bold.
- Run-Time:** the date and time that the alert job was run.

When you select an alert's checkbox, two buttons will be enabled along the top of the page: Mark as Read/Unread, and Delete. This allows you to perform the same action for multiple selected publications.

To mark an alert as read, click on it or select its checkbox and click 'Mark as Read'.



4 Filter

Filter the list of alerts by time and status.

Time filter: filter the list according to a time period or a custom date range. To filter by a custom date range, click Custom, then enter the From and To dates.

Status filter: filter the list to see all alerts, or only those that were read, unread, flagged, or unflagged.

Dynamic Text with Markup functions

In this scenario we're going to show how to mark-up dynamically created dynamic text in a Publication document.

- 1 Add a Text field and from the Component ribbon select Dynamic Text
- 2 In the Content panel, find and select the grid you want to base your dynamic text on. You must select a grid, as dynamic text is supported for grids only.
- 3 We are going to add a dynamic text to inform what's the top seller product, adding the sales amount. The markup functions will be used in the formula to change the font color and size for the product name; underline the sales amounts and add a line break.
- 4 In the formula panel select the Top N Product report, this is the one to be used to compose the formula.

Regional Summary

The Top Selling Product is **Touring-2000 Blue, 60** with Total Sales of \$197,796.06
 And the Boton Seller Product is Road-650 Black, 44 with Sales of \$101,083.42
 Delta between MAX and Min is **\$96,713**

Top 10 Products					
2020					
Product	Sales	Margin	Quantity	Transaction Count	Cost
Touring-2000 Blue, 60	\$197,796.06	18.83%	40	13	52,176.28
Touring-1000 Yellow, 60	\$170,751.09	25.64%	39	12	39,067.92
Touring-1000 Blue, 54	\$168,800.63	28.26%	42	18	51,895.62
Road-650 Red, 48	\$154,454.80	27.24%	91	32	39,421.12
Mountain-500 Silver, 42	\$119,079.80	26.52%	58	22	33,188.10
Road-650 Red, 44	\$116,330.71	20.99%	73	30	37,367.64
Road-550-W Yellow, 44	\$107,108.10	22.36%	76	29	31,733.15
Touring-3000 Yellow, 44	\$106,110.30	27.06%	21	10	36,853.90
Mountain-200 Black, 38	\$101,636.02	28.27%	63	27	31,123.69
Road-650 Black, 44	\$101,083.42	21.50%	60	18	23,474.61
Grand Totals	\$1,343,150.93	24.72%	563	211	376,302.03

These are the Top 3 Products:

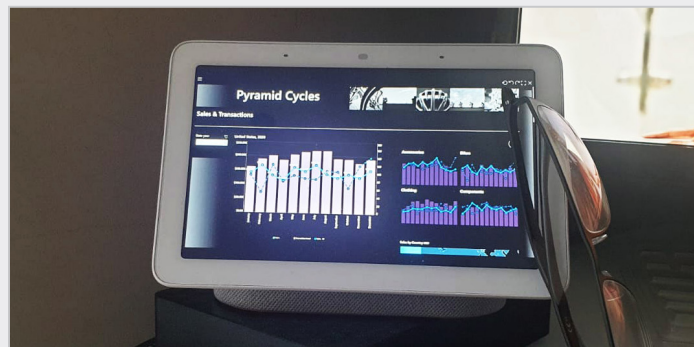
1. Touring-2000 Blue, 60
2. Touring-1000 Yellow, 60
3. Touring-1000 Blue, 54

- 5 Enter the following formula:
 "The Top Selling Product is " + Bold(FontFormat(label(1,0,0), "red", "", 20, "Trebuchet MS")) + " with Total Sales of"
 + Bold(Underline(Format(data(0,0), "\$%,.2f"))) + LineBreak() +"And the Boton Seller Product is " + label(1,0, look-
 upMinRow(0)) +" with Sales of " + Underline(Bold(Format(min(dataSetColumn(0)), "\$%,.2f"))) + LineBreak() + "Delta
 between MAX and Min is " + FontFormat(Format((data(0,0)-data(9,0)), "\$%,.0f"), "black", "", 20, "Arial")
- 6 Next we will add the bullet list with the Top 3 product, using another dynamic text field.; with this formula:
 FontFormat("These are the Top 3 Products: ", "black", "", 18, "Verdana")+LineBreak() + FontFormat(Or-
 deredList(label(1,0,0),label(1,0,1),label(1,0,2)), "black", "", 18, "Verdana")

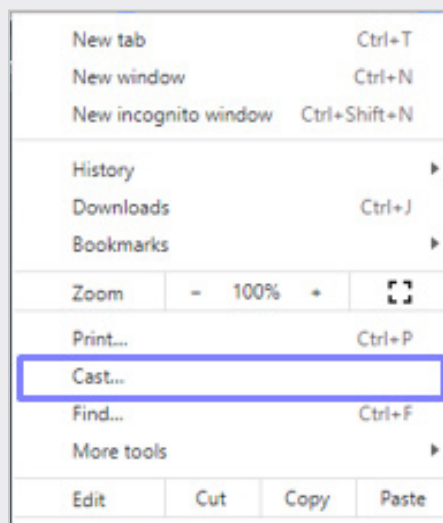
TIP #5

“Chromecast” Pyramid to a “Cast” enabled device

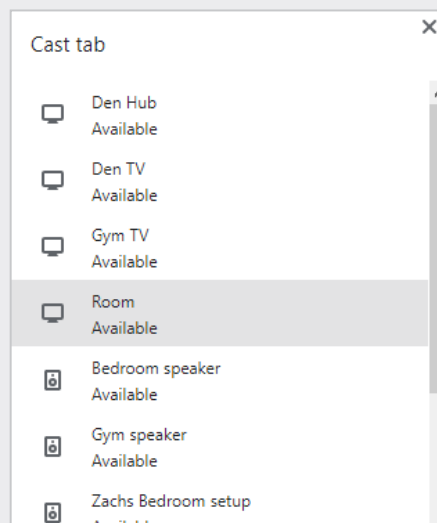
As Pyramids client software can run within Google Chrome this allows for it to be “Cast” (remotely displayed) to a Chromecast enabled device. This could be a large screen TV using a Chromecast dongle in a boardroom (we have this in the Pyramid UK Office) or a smaller device like my Google Hub on my desk at home.



- 1 While in the “Pyramid” content you wish to send to another device (i.e. a dashboard) , go to the “options” (designated by 3 dots on the upper right of Google Chrome) and select “Cast”



- 2 Then select the device you wish to “Cast” to (these need to be on the same network as the PC running Chrome)



TIP #6

Creating a Rank Calculation

Please view this YouTube video to learn about Creating a Rank Calculation

 <https://www.youtube.com/watch?v=OTONSVS4cRM>