

SAP Lumira Discovery – Measures and Dimensions

Version 1.0

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Purpose

This document covers the concept of “Calculated Measures and Dimensions” in SAP Lumira Discovery. This is high level document assumes resource has basic knowledge of SAP Lumira Discovery concepts.

Measures

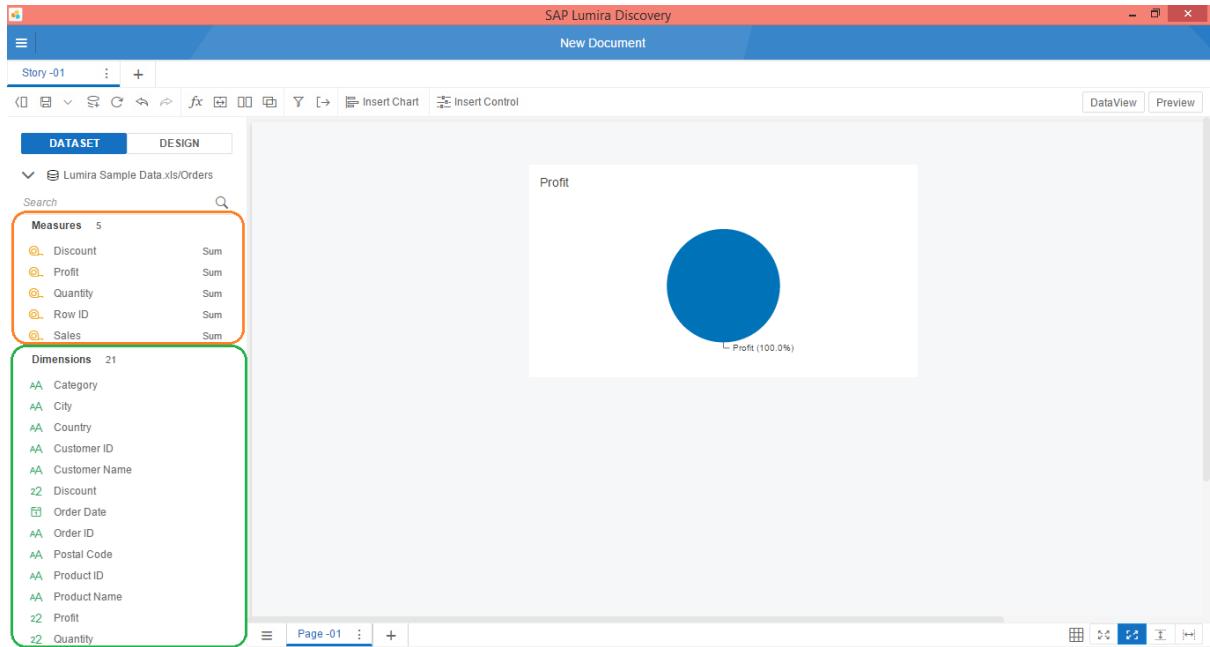
Measures are the numeric values that support mathematical calculations based on aggregation such as sum or average. These contain quantitative data which we can measure like average, revenue, cost, quantity of items and gross margin. Basically, these are the facts which tell us how our business is performing.

Dimensions

Dimensions are the qualitative data elements that can be text or numeric such as dates (Year, quarter, month or day), locations (Country, postal code or city). These can represent aspects of your organisations like executive, manager and employees or can represent business aspects like strategic entities or individual products. These are also useful for indicating customer information. Dimension data cannot be summed up so basically, these provide context to the measure and help us to “categorize” the data to understand it in better way.

Symbolisation of “Measures and Dimensions” in SAP Lumira Discovery

When acquiring the data, Lumira automatically recognizes and sorts Measures and Dimensions. Measures are symbolized by “**Tape measure**” icon. On the other hand, dimensions are represented by a “**Letter**” if they are text based, a “**Number**” if they are numeric in nature, a “**Date icon**” if its related to time or a “**Globe icon**” in case of location information. Both are listed alphabetically as seen below:



Why should we use “Measures and Dimensions” in “SAP Lumira Discovery”?

We can leverage these “**Measures and Dimensions**” in SAP Lumira Discovery to make stunning visualizations as it permits addition of calculated measures and dimensions in the form of methods. Those methods support 5 different functions which are listed below:

- Character
- Date and Time
- Misc
- Numeric
- Operator

The screenshot shows the SAP Lumira formula editor. The 'Functions' dropdown is open, and the 'Measures' section is selected. A blue box highlights the 'Character' section, which contains the following functions: Concatenate(<str1>, <str2>), ExceptFirstWord(<str>, <sep>), ExceptLastWord(<str>, <sep>), FirstWord(<str>, <sep>), LastWord(<str>, <sep>), Length(<str>), and LowerCase(<str>). To the right of the functions, their descriptions and examples are provided. For 'Concatenate', it says: 'Concatenates one specified string (<str1>) with another specified string (<str2>) to form a single string.' An example is given: 'Concatenate("Mr", "Brown") returns "MrBrown"'. For 'FirstWord', it says: 'For Example:'. An example is given: 'Concatenate("Mr", "Brown") returns "MrBrown"'.

Tutorial to guide us on how to use formula

These functions will help us to create calculated “Measures and Dimensions” at design time. For instance, if we want to show “Cost Price” and the data source doesn’t have that measure, then there is no need to alter the query, we can create that measure in SAP Lumira Discovery during the design time.

How do we accomplish this?

1. Open “SAP Lumira Discovery” and select data source as per our requirement.

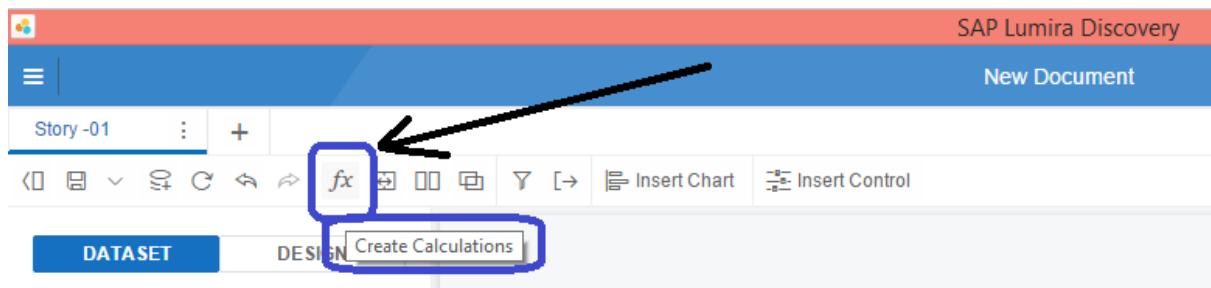


2. We have begun with, “Excel” data source “Orders” for which we want to calculate “Cost Price”.

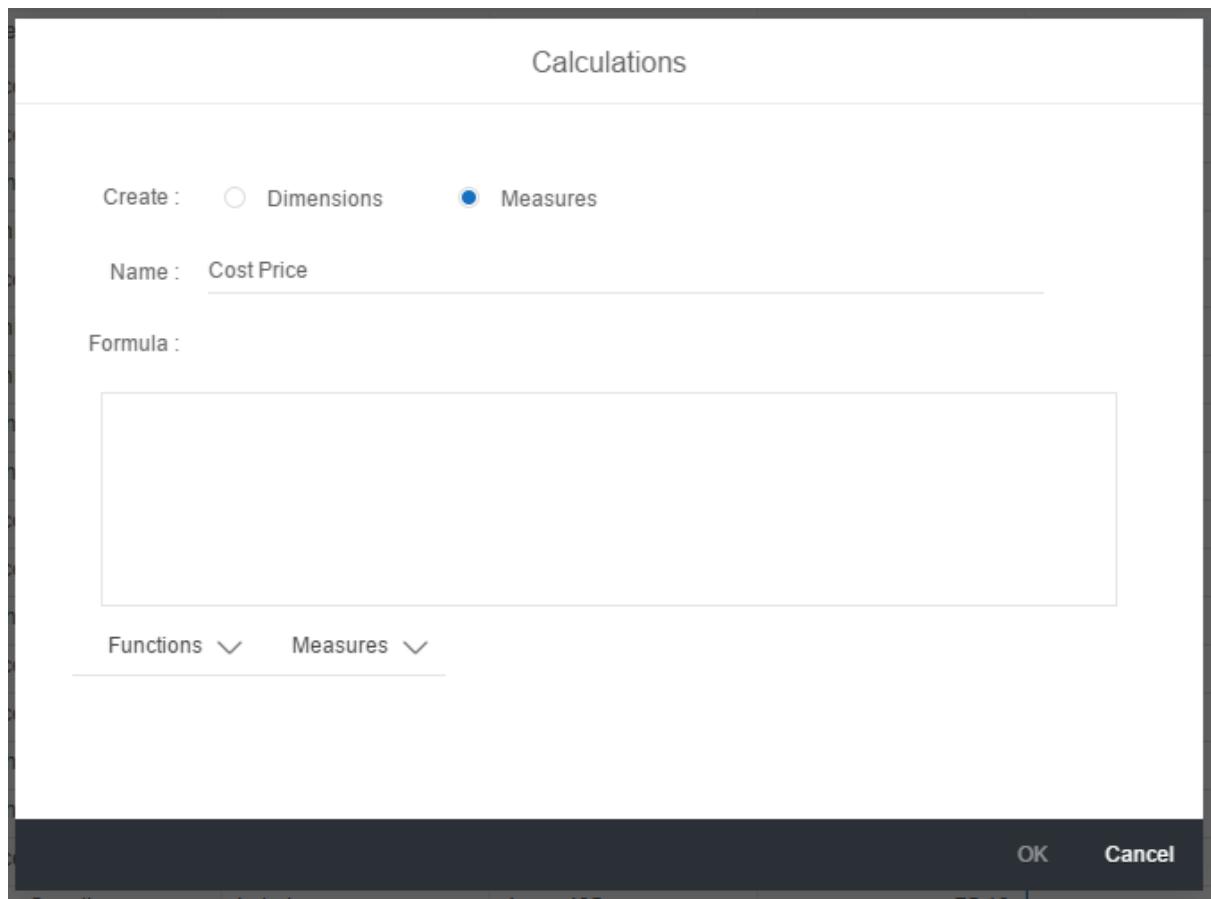
The screenshot shows the SAP Lumira Discovery interface with a "New Document" title. On the left, there is a sidebar with sections for "Dataset", "Summary", "Measures", and "Dimensions". The "Dataset" section is expanded, showing a tree view with "Lumira Sample Data.xls/Orders" selected. The main area is a "Data View" table with the following columns: Category, Sub-Category, Product Name, Sales, Qty, Discount, and Profit. The table contains data for various products across different categories and sub-categories, with some rows having edit icons.

Dataset	Summary	Category	Sub-Category	Product Name	Sales	Qty	Discount	Profit
3	Office Supplies	Art	Lumber Crayons	15.76	2	0.20	3.55	
3	Office Supplies	Paper	Easy-staple paper	29.47	3	0.20	9.95	
7	Technology	Phones	GE 30524E4E	1,097.54	7	0.20	219.47	
4	Furniture	Furnishings	Electrix Architect's Clamp	190.92	5	0.60	-147.96	
3	Office Supplies	Envelopes	#10-4 1/8" x 9 1/2" Premium	113.33	9	0.20	35.42	
5	Furniture	Bookcases	Atlantic Metals Mobile 3-S	532.40	3	0.32	-46.98	
8	Furniture	Chairs	Global Fabric Manager's C	212.06	3	0.30	-15.15	
6	Technology	Phones	Plantronics HL10 Handse	371.17	4	0.20	41.76	
3	Technology	Phones	Panasonic Kx-TS550	147.17	4	0.20	16.56	
3	Office Supplies	Storage	Eldon Base for stackable	77.88	2	0.00	3.89	
2	Office Supplies	Storage	Advantus 10-Drawer Port	95.62	2	0.20	9.56	
1	Technology	Accessories	Verbatim 25 GB 6x Blu-ray	45.98	2	0.00	19.77	
1	Office Supplies	Binders	Wilson Jones Leather-Like	17.46	2	0.00	8.21	
3	Office Supplies	Storage	Gould Plastics 9-Pocket P	211.96	4	0.00	8.48	
7	Technology	Accessories	Imation 8gb Micro Traveld	45.00	3	0.00	4.95	
8	Technology	Phones	LF Elite 3D Dazzle Design	21.80	2	0.00	6.10	
2	Office Supplies	Binders	C-Line Peel & Stick Add-C	38.22	6	0.00	17.96	
2	Office Supplies	Labels	Avery 485	75.18	6	0.00	35.33	
6	Furniture	Furnishings	Longer-Life Soft White Bu	6.16	2	0.00	2.96	
1	Furniture	Chairs	Global Leather Task Chair	89.99	1	0.00	17.10	

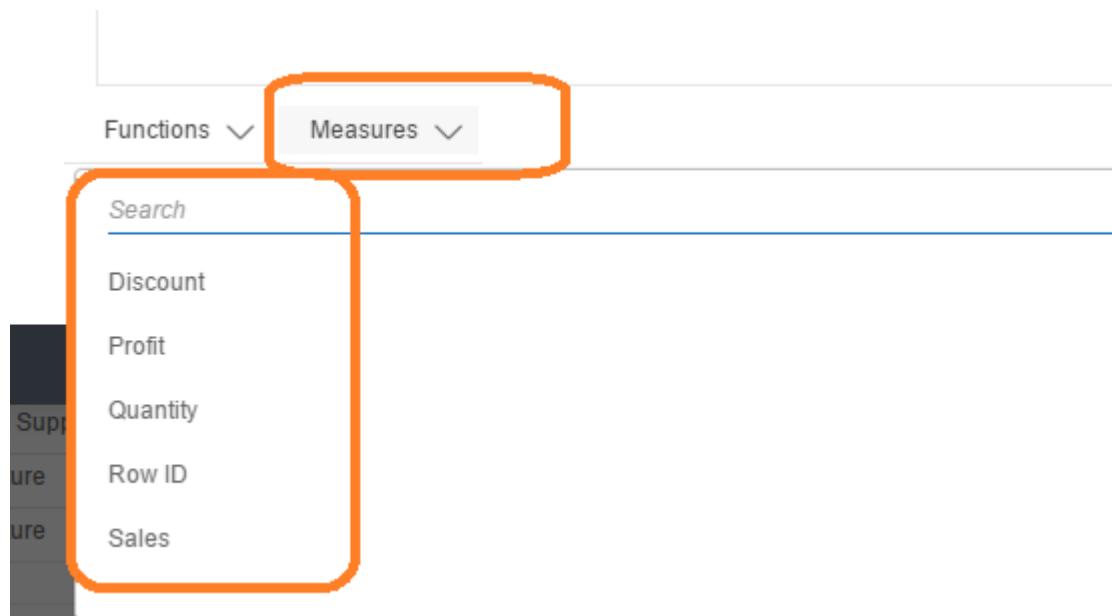
3. Click on icon “**Create Calculations**” as highlighted in below figure.



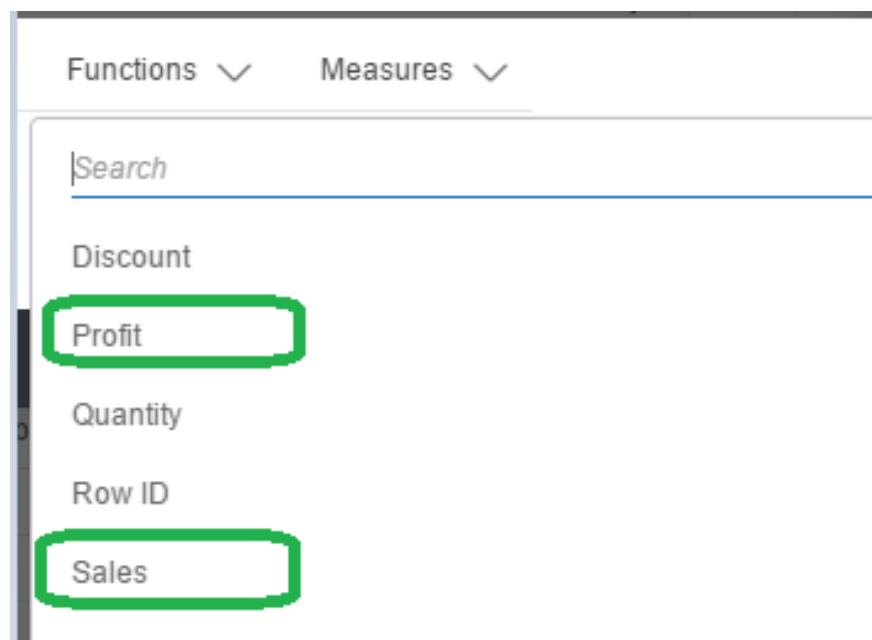
4. “**Calculations**” pop up window will be appeared and choose “**Measures**” option and give appropriate name to the calculated measure.



5. Now, we want to calculate the formula so for this, click on “Measures” dropdown, just below the formula area to see the list of measures present in the data source.



6. Double click on the measure which are applicable in our formula.



7. Here formula is, **Cost Price = Sale Price – Profit**. Use the same in formula area and click OK.

Calculations

Create : Dimensions Measures

Name : Cost Price

Formula :

```
{Sales}-{Profit}
```

Functions ▼ Measures ▼

✓ The calculation is valid.

OK Cancel

8. We can see our calculated measure in the “**Measures**” list.

DATASET SUMMARY

▼ Lumira Sample Data.xls/Orders

Search 🔍

Measures 6

@	Cost Price	Formula
@	Discount	Sum
@	Profit	Sum
@	Quantity	Sum
@	Row ID	Sum
@	Sales	Sum

Dimensions 21

AA	Category
AA	City
AA	Country
AA	Customer ID
AA	Customer Name
22	Discount

9. We can use this calculated measure in any type of visuals as shown below:

