Getting Started

- Parameters

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- Order of operations

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- Conditionally formatting dimensions

- User Level Filtering

- Subscriptions

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Are Parameters really simple?

Following things are important in making them useful:

- They need to be used in calculations.

- The parameter control needs to be displayed so that viewers can interact with it.

Applications:

- Act as filters
- Calculating Lifts dynamically
- Dynamic selection of Measures
- Dynamic selection of Dimensions
- Hiding and displaying sheets/switch between views
- Act as a way to feed values into the dashboard

Limitations:

Parameters are on of the most common features you find in all the dashboards, mainly due to their vast applications. The only catch is that they not dynamic(i.e. values in it don't get updated with latest data) which restricts their usage at times when **Automation** is the priority

Lack of a multiselect option, which is understandable because values in parameters are in turn linked to if-else calculation which uses a single argument in each condition

Blending vs Joining

- Joining is used when you are combining data from the **same source** in the data source page. For example, worksheets in an Excel file or tables in Oracle database.

X
A
B
C

➕

X	Z
A	D
A	E
C	F

X	Z
A	D
A	E
B	NULL
C	F

Use joins to perform data combining, but there are times, depending on factors like granularity and the type of data, it's better to use data blending

- Data blending is a method for combining data that supplements a table of data from one data source with columns of data from **another data source** (Blend is a post-aggregate **virtual** left join. That is, the data on the secondary source is grouped by the dimension being joined, and then left joined with the primary)

X
A
B
C

X	Z
A	D
A	E
C	F

Mostly use blending for small datasets, as any use of a blend is generally slower and less performant than using joins within the data source.

Limitations of Blending

After Blending, when the linking dimension is not in the view, non-additive aggregates from the secondary source like COUNTD(), MEDIAN() functions are not supported.

- One alternative to this is to create a data source which has the unique combination of the values that you want to count. Now, you can blend the data source and use the function **Count** to achieve the required result
- This is recommended as long as the size of the data source does not affect the performance

Measure names & values from secondary data source can't be pulled directly into the sheet but it can be implemented with a simple workaround

- These are few limitations of blending. Hence, based on your use case, choose between them wisely

How can you filter the data across sheets using multiple data sources with a single entity?

- Using Parameters as filters
- Blending the data sources and using a single quick filter
- Dashboard actions

LOD – Level of Detail

- LOD Expressions provide a way to compute aggregations that are not at the level of detail of the visualization(*Tricky!!*)

- It can be related to the **Group By** statement of SQL in some terms, but it is much more than that

There are 3 types of LOD Expressions:
- **FIXED** : Aggregation is independent of the dimensions present in the view(i.e. dependent only on the specified dimensions)

- **INCLUDE** : Aggregates values using the specified dimensions in addition to whatever dimensions are in the view

- **EXCLUDE** : Aggregates values by excluding the specified dimensions from the ones already present in the view

Syntax: { FIXED/INCLUDE/EXCLUDE   <dimensions> : <aggregate expressions> }

Order of operations
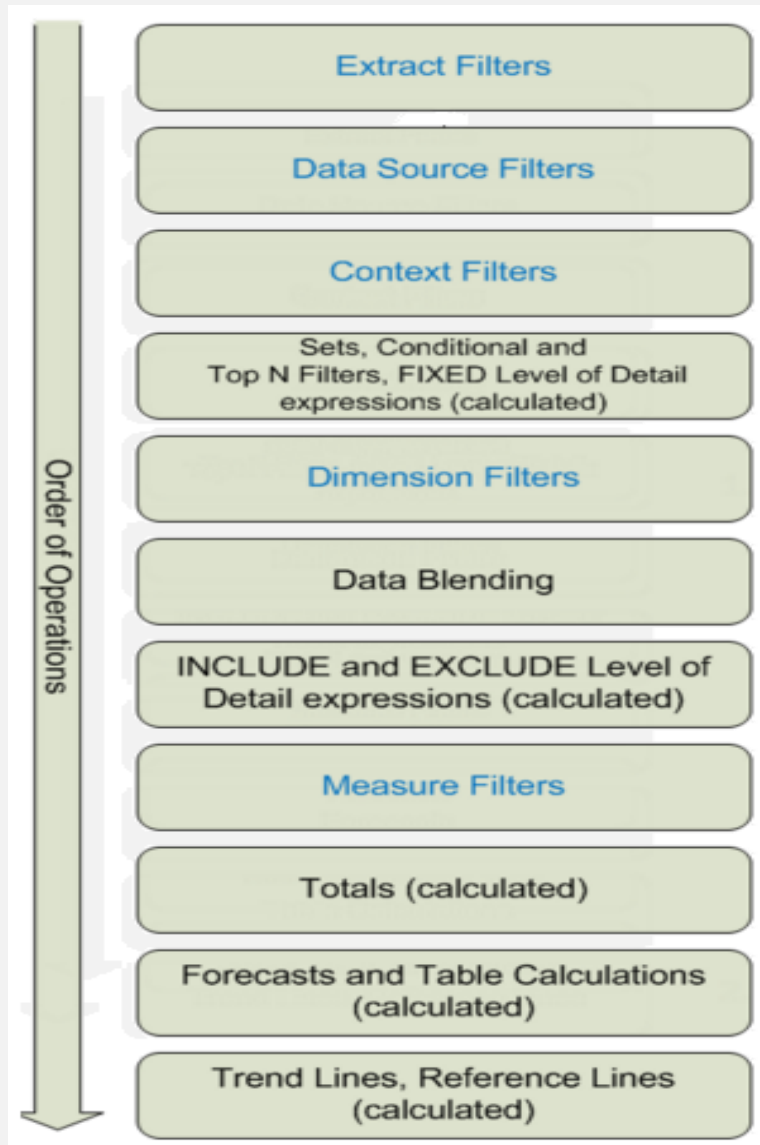
Filters that are applied on the data source are called data source filters and when you keep the filter intact while you extract the data, then data source filters acts as extract filters

By default, the quick filters are acted independently but instead if you add some of them to context, that will enable the other filters dependent on the context filter – Helps in increasing performance

Grand Total has higher precedence than Table calculations, due to which you notice index() filter not being applied on Grand Totals

User level Filters enable data security

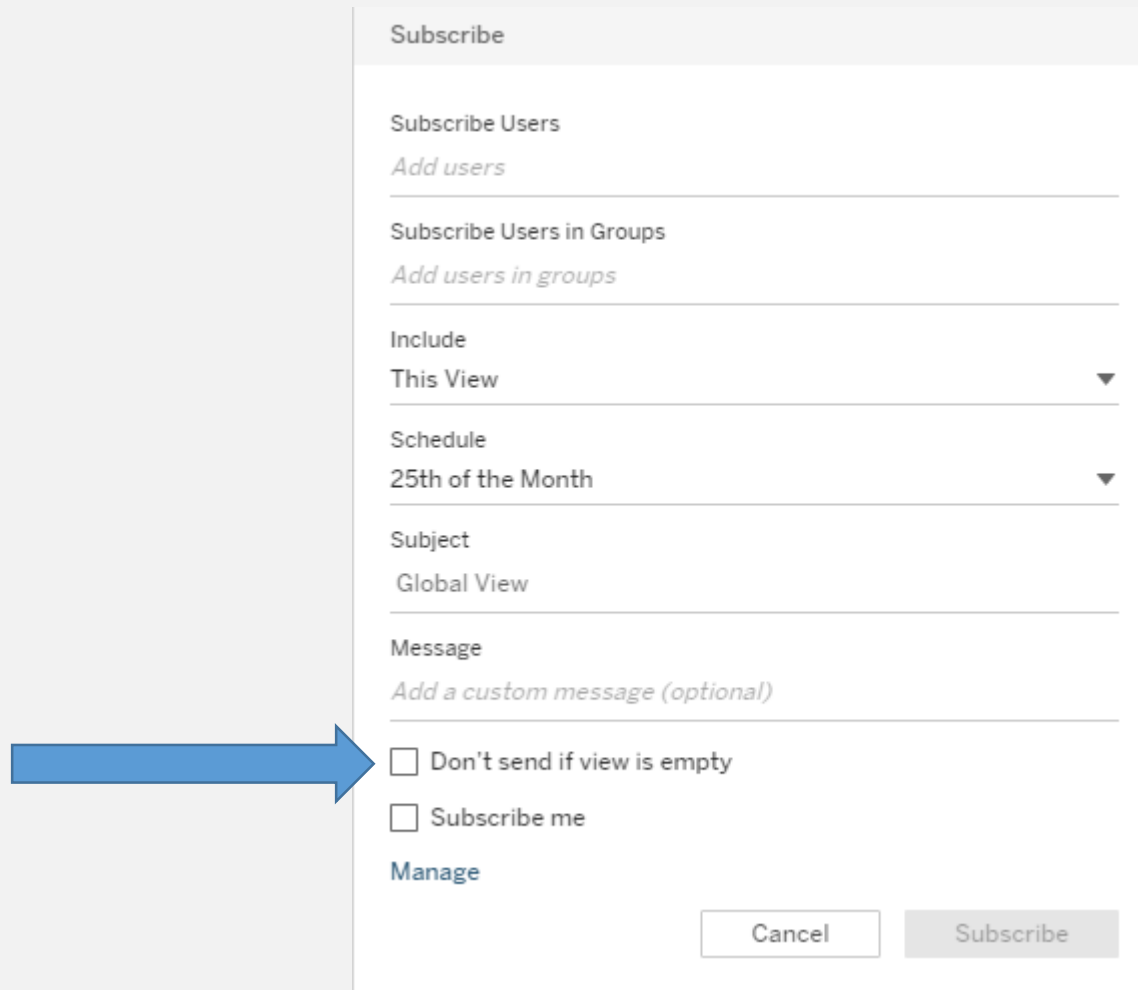| Sub Region1	Tableau ID
ASEAN	U8015328U9006761U8016549U6014564U8011473U8013131U0137246U8004199U8001644U8000916(
Pacific	U8015328U9006761U8016549U6014564U8015612U8013131U0137246U8004199U8001644U8000916(
North Asia	U8015328U9006761U8016549U6014564U8013131U0137246U8004199U8001644U8000916U6041394(
Japan	U8015328U9006761U8016549U6014564U0094297U8013131U0137246U8004199U8001644U8000916(
Europe North	U8012946U8000268U0134672U8008284U8013131U0148364U8005559U0040895U8002399U0089869!
Europe East-West	U8012946U8000268U8014630U8008791U8013131U0148364U8005559U0040895U8002399U0010865!
Canada	U8008407U0070533U0134995U1200769U1004842U0076337U0028032U0017262U8007939U8013131(
East	U8008407U0070533U0134995U8005183U1004842U0076337U0028032U0017262U8007939U8013131(
Central & West	U8008407U0070533U0134995U8000221U1004842U0076337U0028032U0017262U8007939U8013131(

Base Table

Left join on
Sub region

Calculated Field
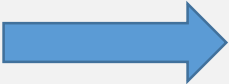
```
User Filter                    PA                    ×

IF CONTAINS([TableauID],USERNAME())
then [Sub Region]
END
```

Can we send automated notifications at the time of abnormalities?

THANK YOU!