

Use Tableau with Apache Kylin

Date: August 2016

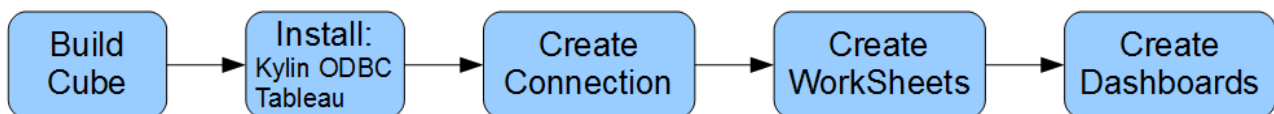
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Intro

We can use [Quick Start with Sample Cube](#) of Kylin Project to make an example of integration with Tableau Software



Pre-requisites

The First, you need Build Kylin Cube: [Quick Start with Sample Cube](#): With Step 5, you can check the result cube executing:

```
select part_dt, sum(price) as total_selled, count(distinct seller_id) as sellers from kylin_sales group by part_dt order by part_dt
```

Query results:

Results (731)

PART_DT ▾	TOTAL_SELLE...	SELLERS ▾
2012-01-01	466.9037	12
2012-01-02	970.2347	17
2012-01-03	917.4138	14

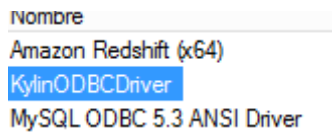
Second, Install [Tableau Desktop 9.3.3](#) On windows

Used Software

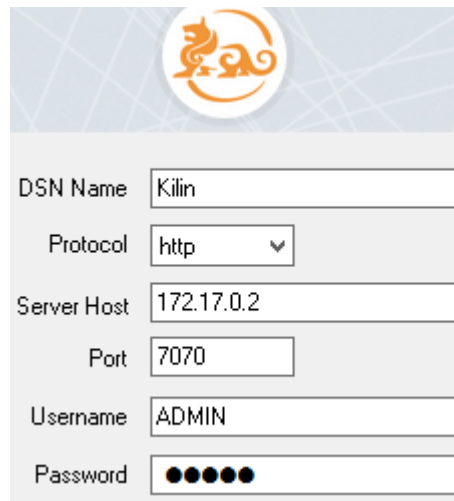
- [Kylin: 1.5.2](#)
- [Kylin ODBC 1.5](#) (Don't use v1.3, don't work)
- [Tableau Desktop 9.3.3](#)

Create Connection

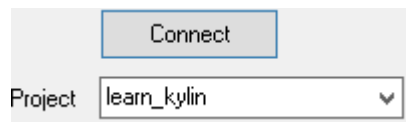
1. [Install Kylin ODBC](#)
2. Add DNS System in Windows



3. And configure: User-name /Password: ADMIN / KYLIN

A screenshot of the Kylin ODBC configuration window. It features the Kylin logo at the top. The fields are: DSN Name (Kilin), Protocol (http), Server Host (172.17.0.2), Port (7070), Username (ADMIN), and Password (masked with dots).

4. Click Connect and Choose the project

A screenshot showing a 'Connect' button and a 'Project' dropdown menu. The dropdown menu is open, showing 'learn_kylin' as the selected project.

5. Click on “Done”
6. Download and install Tableau Desktop and launch it
7. **Connect** > **More Servers...** > **Other Databases (ODBC)**
8. **Driver:** **KylinODBCDriver** > **Connect**
9. Complete details connections (ADMIN /KYLIN), click done, click OK:

Protocol

Server Host

Port

Username

Password

Project

10. Click on **Select Database** > **defaultCatalog** > **Enter table...** (In **magnifying glass**)

The result must be, three new tables (on left panel):

☒ Exact ☐ Contains ☐ Starts with

- ☒ KYLIN_CAL_DT (DEFAULT.KYLIN_CAL_DT)
- ☒ KYLIN_CATEGORY_GRO...ATEGORY_GROUPINGS)
- ☒ KYLIN_SALES (DEFAULT.KYLIN_SALES)

NOTE: Some times this not work fine, Solution: close and open Tableau :)

11. Add this tables to Tableau: Drag and Drop to **Drag tables here**

- First “Kylin_sales” (Fact Table) and second “Kylin_Cal_DT” (Dimension table)



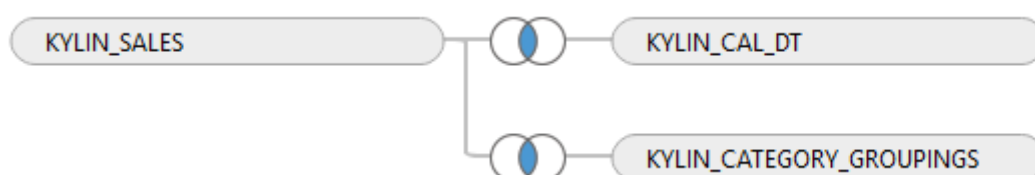
And Join Relation:

Data Source		KYLIN_CAL_DT
Part Dt	=	Cal Dt

- Now the same whit “Kylin_Category_Groupings”


Data Source		KYLIN_CATEGORY_GROUPI...
Leaf Categ Id	=	Leaf Categ Id (Kylin Cate...
Lstg Site Id	=	Site Id

- The result must be:



Update Now







- Now if you click: , you must see data table:

 KYLIN_CAL_DT Week Beg Dt	 KYLIN_CAL_DT Cal Dt	Abc KYLIN_CATEGORY_GROUPINGS User Defined Field1	Abc KYLIN_CATEGORY_GROUPINGS User Defined Field3	Abc KYLIN_CATEGORY_GRO... Upd Date	Abc KYLIN_CATEGORY_GR... Upd User
01/01/2012	01/01/2012	11	Collectibles	2012-09-11 20:26:...	USER_Y
01/01/2012	01/01/2012	4	Business (Office & Ind...	2013-04-28 20:37:...	USER_Y
01/01/2012	01/01/2012	9	Apparel	2013-09-10 16:52:...	USER_Y
01/01/2012	01/01/2012	9	Apparel	2013-07-16 08:23:...	USER_Y
01/01/2012	01/01/2012	12	Computers	2012-05-01 08:54:...	USER_Y
01/01/2012	01/01/2012	11	Collectibles	2008-06-03 13:36:...	USER_Y
01/01/2012	01/01/2012	0	Apparel	2013-09-11 20:26:...	USER_Y

Intro to Sheet Elements

Go to Sheet 1: Sheet 1

You must see the Dimensions in left panel

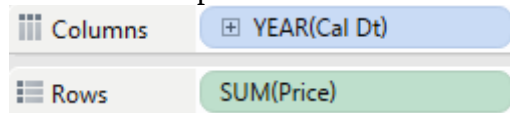
Dimensions	
▲	 KYLIN_CAL_DT  Cal Dt  Week Beg Dt
▲	 KYLIN_CATEGORY_GRO... Abc Categ Lvl2 Name Abc Categ Lvl3 Name # Leaf Categ Id (Kylin Cat... Abc Meta Categ Name # Site Id Abc Upd Date Abc Upd User Abc User Defined Field1 Abc User Defined Field3
▲	 KYLIN_SALES # Leaf Categ Id Abc Lstg Format Name # Lstg Site Id  Part Dt # Seller Id Abc Measure Names

And measures:

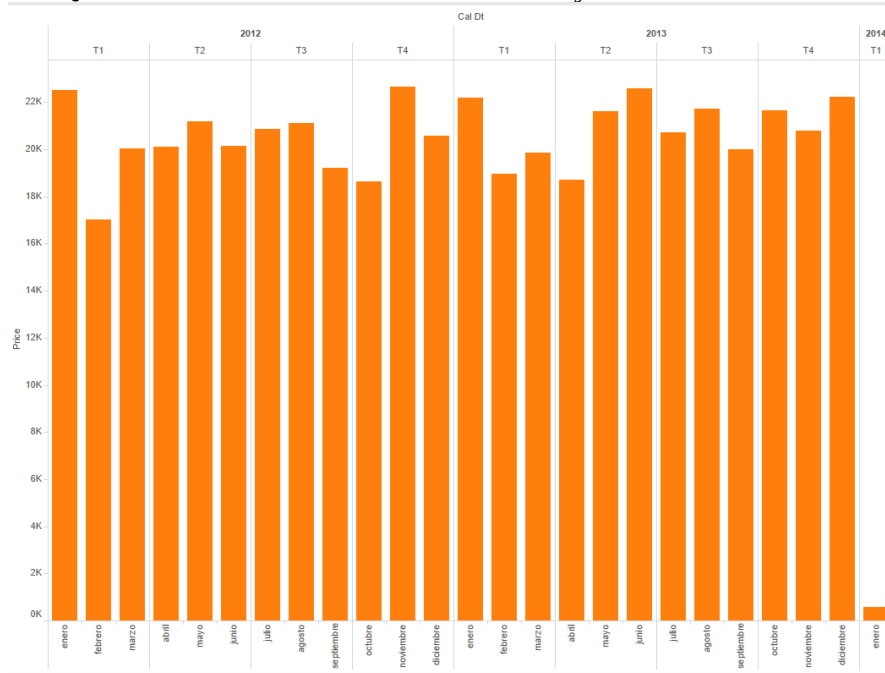
Measures	
#	Price
=#	Number of Records
#	Measure Values

Our First WorkSheet

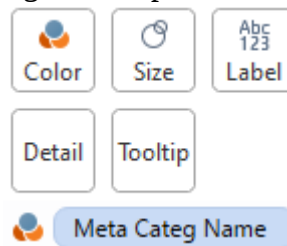
Drag and Drop “Cal_Dt” and “Price” like in picture:



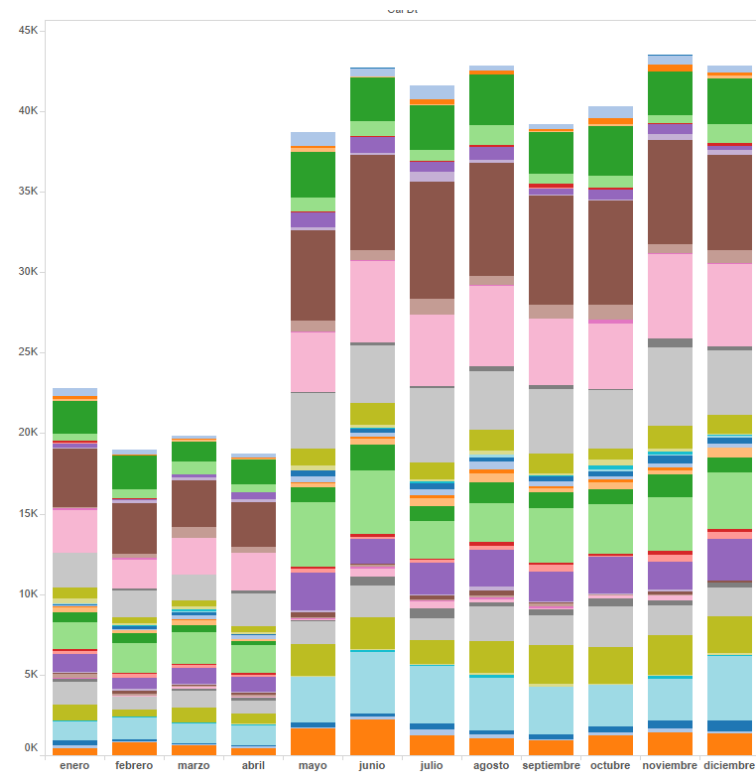
You can expand to Quarter and Months: Click on “Plus” of year: 



We can add sub-totals by category: Drag and Drop “Meta Categ Name” to “Color”



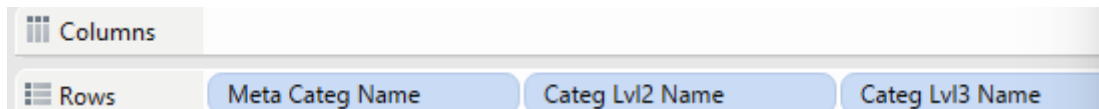
The result must be similar to:



Second Worksheet

Create new Worksheet 

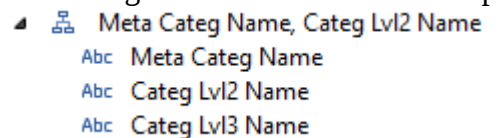
Drag and Drop:



We can see there is a relation ships, between “Meta Categ Name”, L2 and L3:

Meta Categ Name	Categ Lvl2 Name	Categ Lvl3 Name
Abbigliamento e accessori	Donna: Accessori	SciarpFoulard e Scialli
Baby	Baby Clothing	Boys
		Unisex
	Nursery Decor	Night Lights
BookMagazines	Children's Books	Comic Books
		Children's Books
Books	First Editions	Other
Business & Industrial	Electrical & Test Equipment	Test Equipment
	Heavy Equipment	Antique & Vintage Farm Equip
	Light Equipment & Tools	Air Tools
	Manufacturing & Metalworking	Metalworking Tooling
	MRO & Industrial Supply	Pumps & Plumbing
	Printing & Graphic Arts	Commercial Printing Presses
	Retail & Services	Jewellery Packaging & Display
		Jewelry Packaging & Display
Cameras & Photo	Camera & Photo Accessories	LCD Hoods
	Film Photography	Other

Delete 3 the three fields in “Rows” and generate a hierarchy: using Dimensions Menu (Left side)
 Drag and Drop “Lvl2” over “Meta Categ Name” and after D & Drop “Lvl3”, the result must be:



Drag and Drop the New hierarchy on “Rows” and expands

Meta Categ Name	Categ Lvl2 Name	Categ Lvl3 Name
Abbigliamento e accessori	Donna: Accessori	SciarpFoulard e Scialli
Baby	Baby Clothing	Boys
		Unisex
	Nursery Decor	Night Lights
BookMagazines	Children's Books	Comic Books
		Children's Books
Books	First Editions	Other
Business & Industrial	Electrical & Test Equipment	Test Equipment
	Heavy Equipment	Antique & Vintage Farm E
	Light Equipment & Tools	Air Tools

123 123
 123 123
 123 123

Change the diagram type to table:

Drag and Drop “Price” to Rows, and see total at right of table:

Meta Categ Name	Categ Lvl2 Name	
Abbigliamento e accessori	Donna: Accessori	76
Baby	Baby Clothing	1.241
	Nursery Decor	5.074



Now you can change the graph type:

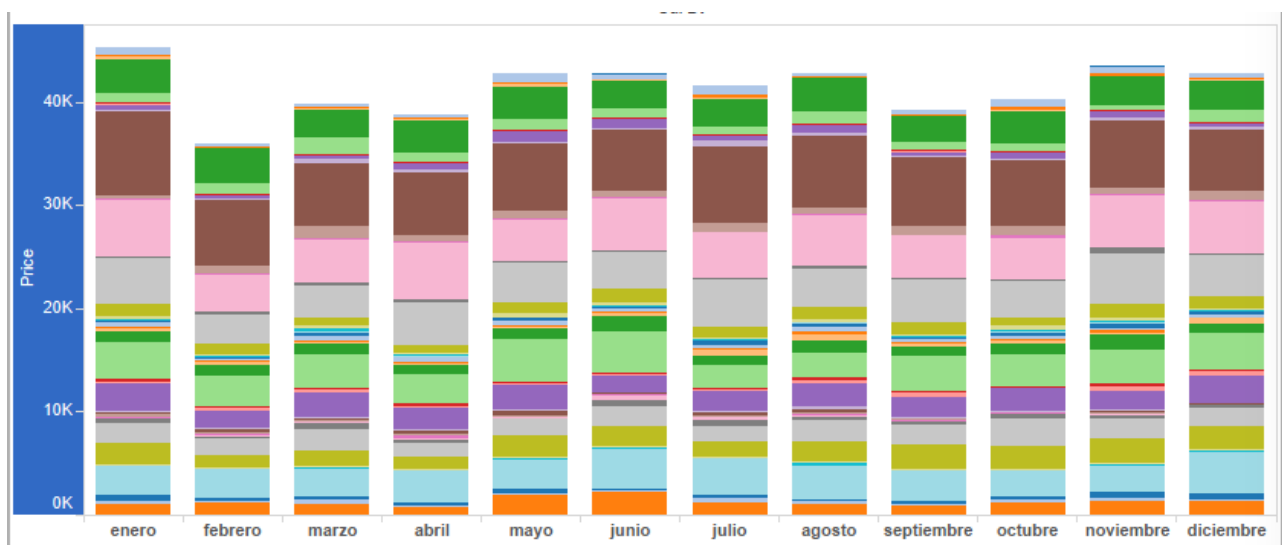
Meta Categ Name	Categ Lvl2 Name	
Abbigliamento e accessori	Donna: Accessori	
Baby	Baby Clothing	
	Nursery Decor	
BookMagazines	Children's Books	

Create Dashboard



Create New Dashboard

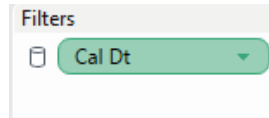
Drag and Drop WorkSheet_1 and WorkSheet_2



Hoja 2

Meta Categ Name	Categ Lvl2 Name	
Abbigliamento e accessori	Donna: Accessori	
Baby	Baby Clothing	
	Nursery Decor	
BookMagazines	Children's Books	
	First Editions	
Books	Electrical & Test Equipment	
	Heavy Equipment	
	Light Equipment & Tools	
	Manufacturing & Metalworking	
	MRO & Industrial Supply	
	Printing & Graphic Arts	
Business & Industrial	Retail & Services	
	Camera & Photo Accessories	
	Film Photography	

Add filter to dashboard

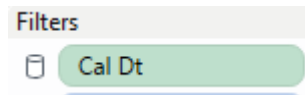


1º Add Filter to Worksheet_1 :

2º Configure as “All Using this Data Source”



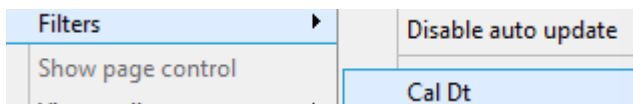
3º Check in Worksheet_2, appears a new filter:



4º Add filter to dashboard: Select a Worksheet on Dashboard, and right- click on upper edge



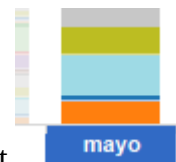
Filter > “Cal Dt”



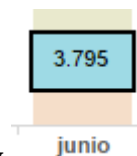
Now appears new right panel:
Worksheet of Dashboard



, you can check that this filter affect to all

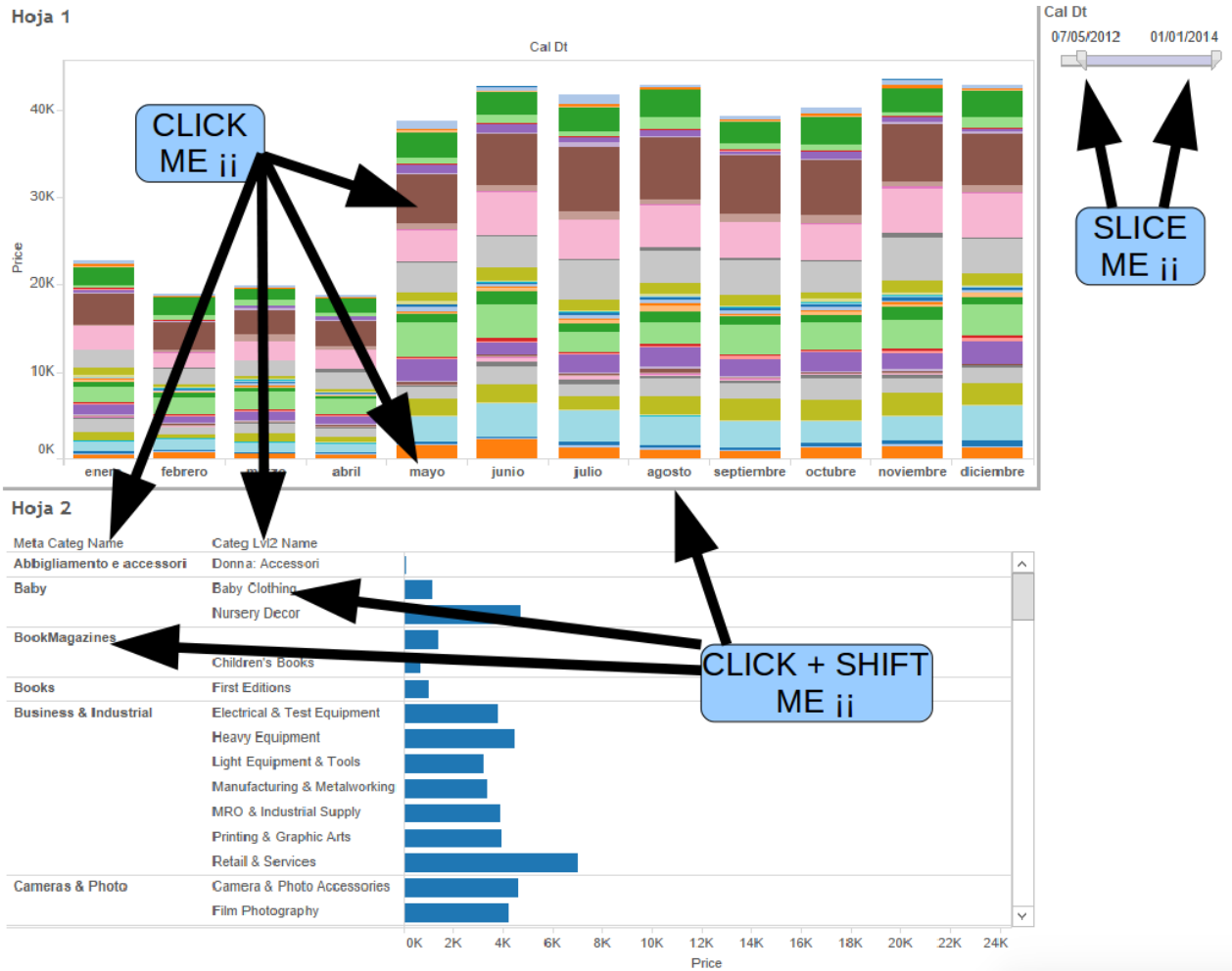


Also, you can filter by date, clicking in month, on upper worksheet



Also, you can filter by category, clicking in category

Final Result:



*For any suggestions, feel free to contact me
Thanks, Alberto*