

Subset Example: ABC Turnover Analysis

This example builds on the previous subset example, [Top-Ten Analysis](#).

In this article, we will show two examples: in the first, we want to display the products that have made 80% of the total turnover for the 4th quarter of 2014 ("A" elements). In the second example, we will show the products that made only 10% of the total turnover for the 4th quarter of 2014 ("C" elements). The elements in the middle ("B" elements) can then be easily identified.

We use the result of the Top-Ten Analysis as starting point.

Example 1: "A" elements

	A	B	C	D	E	F	G
1							
2		DB: localhost/Demo		Regions	Years	Versions	Measures
3		Cube: Sales		Europe	2014	Actual	Turnover
4		[Edit View]					
5		[Swap]					
6			Qtr. 4		Turnover cumulated	in %	Top Ten
7		TFT Monitor XA	1.758.548		1.758.548	13,1%	TFT Monitor XA
8		Notebook SX	1.143.179		2.901.728	21,7%	Notebook SX
9		Notebook GT	1.130.646		4.032.374	30,1%	Notebook GT
10		TFT Monitor TL	1.080.562		5.112.936	38,2%	TFT Monitor TL
11		Notebook LXC	970.602		6.083.538	45,5%	Notebook LXC
12		Desktop L	928.095		7.011.633	52,4%	Desktop L
13		Desktop Pro	796.848		7.808.481	58,4%	Desktop Pro
14		TFT Monitor XP	754.103		8.562.584	64,0%	TFT Monitor XP
15		Desktop Pro XL	686.314		9.248.898	69,1%	Desktop Pro XL
16		Server Power XC	581.380		9.830.278	73,5%	Server Power XC
17		Server Dual C	468.576		10.298.854	77,0%	
18		Server Dual XC	448.868		10.747.722	80,3%	
19		Desktop High XL	440.567		11.188.289	83,6%	
20		Notebook TT	370.322		11.558.612	86,4%	
21		Server Power TT	331.788		11.890.400	88,9%	
22		Desktop High XQ	314.599		12.204.999	91,2%	
23		Server Lion RX	285.556		12.490.555	93,3%	
24		Notebook SL	234.881		12.725.436	95,1%	
25		Optical Mouse TS	208.668		12.934.104	96,7%	
26		Subnote XK	125.057		13.059.161	97,6%	
27		Laptop Mouse S	105.364		13.164.525	98,4%	
28		Wireless Mouse XT	94.808		13.259.333	99,1%	
29		Keyboard GT	94.160		13.353.493	99,8%	
30		Keyboard XX	28.171		13.381.665	100,0%	
31		Subnote SL	0		13.381.665	100,0%	
32							
33		Total:	13.381.665				

Mark cells G7:G31 and open Paste Subset. We retain the previous settings and change only the Data tab as follows:

- Disable: Take topmost elements: 10
- Enable: Take all upper elements up to %: 80

Subset editor

Stored subsets

Private subsets
Global subsets

General Hierarchy Text Picklist Attribute Data Sort Preview

Activate this filter

Settings

Select cube: Sales Variable

Products

Regions Europe Variable

Months Qtr. 4 Variable

Years 2014 Variable

Versions Actual Variable

Criteria: The sum of the elements Variable

Slice operators

[None] Variable

AND

[None] Variable

Optional settings

Take topmost elements 10 Variable

Take all upper elements up to % 80 Variable

Take all lower elements up to % 0 Variable

+ - Save Paste stored Paste Close Auto Quick Refresh

=PALO.SUBSET("localhost/Demo","Products",1,,PALO.HFILTER(,0,false,2,,,,),,,,PALO.DFILTER(PALO.SUBCUBE("Sales",,"Europe",,"Qtr. 4","2014","Actual",,"Turnover"),,,,80,,0),PALO.SORT(0,1,,0,,2,1,,))

Click Paste for the following result:

	A	B	C	D	E	F	G
1							
2		DB: localhost/Demo		Regions	Years	Versions	Measures
3		Cube: Sales		Europe	2014	Actual	Turnover
4		[Edit View]					
5		[Swap]					
6			Qtr. 4		Turnover cumulated	in %	
7		TFT Monitor XA	1.758.548	A	1.758.548	13,1%	TFT Monitor XA
8		Notebook SX	1.143.179	A	2.901.728	21,7%	Notebook SX
9		Notebook GT	1.130.646	A	4.032.374	30,1%	Notebook GT
10		TFT Monitor TL	1.080.562	A	5.112.936	38,2%	TFT Monitor TL
11		Notebook LXC	970.602	A	6.083.538	45,5%	Notebook LXC
12		Desktop L	928.095	A	7.011.633	52,4%	Desktop L
13		Desktop Pro	796.848	A	7.808.481	58,4%	Desktop Pro
14		TFT Monitor XP	754.103	A	8.562.584	64,0%	TFT Monitor XP
15		Desktop Pro XL	686.314	A	9.248.898	69,1%	Desktop Pro XL
16		Server Power XC	581.380	A	9.830.278	73,5%	Server Power XC
17		Server Dual C	468.576	A	10.298.854	77,0%	Server Dual C
18		Server Dual XC	448.868	A	10.747.722	80,3%	Server Dual XC
19		Desktop High XL	440.567		11.188.289	83,6%	
20		Notebook TT	370.322		11.558.612	86,4%	
21		Server Power TT	331.788		11.890.400	88,9%	
22		Desktop High XQ	314.599		12.204.999	91,2%	
23		Server Lion RX	285.556		12.490.555	93,3%	
24		Notebook SL	234.881		12.725.436	95,1%	
25		Optical Mouse TS	208.668		12.934.104	96,7%	
26		Subnote XK	125.057		13.059.161	97,6%	
27		Laptop Mouse S	105.364		13.164.525	98,4%	
28		Wireless Mouse XT	94.808		13.259.333	99,1%	
29		Keyboard GT	94.160		13.353.493	99,8%	
30		Keyboard XX	28.171		13.381.665	100,0%	
31		Subnote SL	0		13.381.665	100,0%	
32							
33		Total:	13.381.665				

The subset shows the largest elements with over 80% turnover. To identify these elements, we enter "A" in column C.

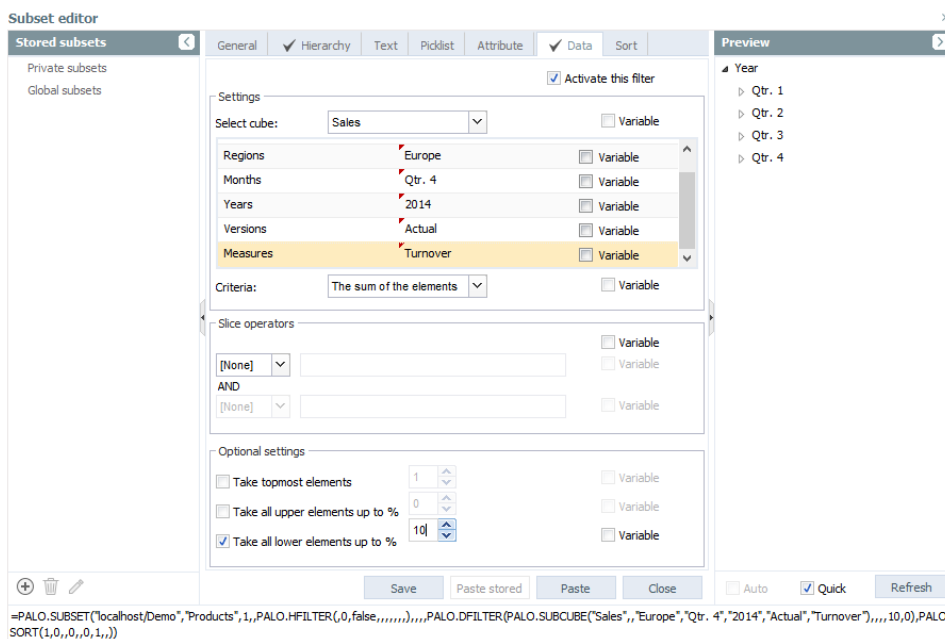
Example 2: "B" and "C" elements

In the second example, we want to display the products that made only 10% of the total turnover for the 4th quarter of 2014.

First, we change the order in B6: D31 to ascending. Then we mark

G7:G31 and open Paste Subset. Make the following changes:

- Disable the option “Take all upper elements up to %: 80” in **Data tab**
- Enable the option “Take all lower elements up to %:” and set to 10 in **Data tab**
- Disable “Reverse” in **Sort tab**



The screenshot shows the 'Subset editor' window with the 'Data' tab selected. The 'Settings' section includes a 'Select cube' dropdown set to 'Sales'. Below it, a list of dimensions and measures is shown with checkboxes for 'Variable':

Regions	Europe	<input type="checkbox"/>
Months	Qtr. 4	<input type="checkbox"/>
Years	2014	<input type="checkbox"/>
Versions	Actual	<input type="checkbox"/>
Measures	Turnover	<input type="checkbox"/>

The 'Criteria' dropdown is set to 'The sum of the elements'. Under 'Optional settings', the 'Take all lower elements up to %' checkbox is checked and set to 10. The 'Take all upper elements up to %' checkbox is unchecked. At the bottom, the 'Quick' checkbox is checked.

Below the editor, the following MDX query is displayed:

```
=PALO.SUBSET("localhost/Demo", "Products", 1,,PALO.FILTER(,0,false,,,,,,,,),,PALO.DFILTER(PALO.SUBCUBE("Sales", "Europe", "Qtr. 4", "2014", "Actual", "Turnover"),,,10,0),PALO.SORT(1,0,,0,,0,1,,))
```

Then we get the following elements:

	A	B	C	D	E	F	G
1							
2		DB: localhost/Demo		Regions	Years	Versions	Measures
3		Cube: Sales		Europe	2014	Actual	Turnover
4		[Edit View]					
5		[Swap]					
6			Qtr. 4		Turnover cumulated	in %	
7		Subnote SL	0	C	0	0,0%	Subnote SL
8		Keyboard XX	28.171	C	28.171	0,2%	Keyboard XX
9		Keyboard GT	94.160	C	122.331	0,9%	Keyboard GT
10		Wireless Mouse XT	94.808	C	217.140	1,6%	Wireless Mouse XT
11		Laptop Mouse S	105.364	C	322.504	2,4%	Laptop Mouse S
12		Subnote XK	125.057	C	447.561	3,3%	Subnote XK
13		Optical Mouse TS	208.668	C	656.229	4,9%	Optical Mouse TS
14		Notebook SL	234.881	C	891.110	6,7%	Notebook SL
15		Server Lion RX	285.556	C	1.176.666	8,8%	Server Lion RX
16		Desktop High XQ	314.599	C	1.491.265	11,1%	Desktop High XQ
17		Server Power TT	331.788		1.823.053	13,6%	
18		Notebook TT	370.322		2.193.376	16,4%	
19		Desktop High XL	440.567		2.633.943	19,7%	
20		Server Dual XC	448.868	A	3.082.811	23,0%	
21		Server Dual C	468.576	A	3.551.387	26,5%	
22		Server Power XC	581.380	A	4.132.767	30,9%	
23		Desktop Pro XL	686.314	A	4.819.081	36,0%	
24		TFT Monitor XP	754.103	A	5.573.184	41,6%	
25		Desktop Pro	796.848	A	6.370.031	47,6%	
26		Desktop L	928.095	A	7.298.126	54,5%	
27		Notebook LXC	970.602	A	8.268.729	61,8%	
28		TFT Monitor TL	1.080.562	A	9.349.291	69,9%	
29		Notebook GT	1.130.646	A	10.479.937	78,3%	
30		Notebook SX	1.143.179	A	11.623.116	86,9%	
31		TFT Monitor XA	1.758.548	A	13.381.665	100,0%	
32							
33		Total:	13.381.665				

The subset shows the elements with just over 10% turnover. To identify these elements, we enter "C" in column C.

To obtain the elements that are between the bottom 10% turnover limit and the upper 80% limit, we have to enable both borders simultaneously in the Data tab:

	A	B	C	D	E	F	G	
1								
2		DB: localhost/Demo		Regions	Years	Versions	Measures	
3		Cube: Sales		Europe	2014	Actual	Turnover	
4		[Edit View]						
5		[Swap]						
6			Qtr. 4		Turnover cumulated	in %	between 10% and 80% turnover	
7		Subnote SL	0	C	0	0,0%	Server Power TT Notebook TT Desktop High XL	
8		Keyboard XX	28.171	C	28.171	0,2%		
9		Keyboard GT	94.160	C	122.331	0,9%		
10		Wireless Mouse XT	94.808	C	217.140	1,6%		
11		Laptop Mouse S	105.364	C	322.504	2,4%		
12		Subnote XK	125.057	C	447.561	3,3%		
13		Optical Mouse TS	208.668	C	656.229	4,9%		
14		Notebook SL	234.881	C	891.110	6,7%		
15		Server Lion RX	285.556	C	1.176.666	8,8%		
16		Desktop High XQ	314.599	C	1.491.265	11,1%		
17		Server Power TT	331.788	B	1.823.053	13,6%		
18		Notebook TT	370.322	B	2.193.376	16,4%		
19		Desktop High XL	440.567	B	2.633.943	19,7%		
20		Server Dual XC	448.868	A	3.082.811	23,0%		
21		Server Dual C	468.576	A	3.551.387	26,5%		
22		Server Power XC	581.380	A	4.132.767	30,9%		
23		Desktop Pro XL	686.314	A	4.819.081	36,0%		
24		TFT Monitor XP	754.103	A	5.573.184	41,6%		
25		Desktop Pro	796.848	A	6.370.031	47,6%		
26		Desktop L	928.095	A	7.298.126	54,5%		
27		Notebook LXC	970.602	A	8.268.729	61,8%		
28		TFT Monitor TL	1.080.562	A	9.349.291	69,9%		
29		Notebook GT	1.130.646	A	10.479.937	78,3%		
30		Notebook SX	1.143.179	A	11.623.116	86,9%		
31		TFT Monitor XA	1.758.548	A	13.381.665	100,0%		
32								
33		Total:	13.381.665					

Now the ABC-turnover analysis of the products is complete for the 4th quarter of 2014 for the region Europe.