

Case Study: Establishing product stocking levels for sales locations

Problem:

A customer of ours periodically adjusts the product stocking levels for all of their non-warehouse sales locations. In order to keep inventory dollar levels in check the customer wanted to stock only the top 50 items, by quantity sold, for all of his major product lines and subcategories. The customer felt that looking at the past 4 months sales for each location would be a good indicator of which products to stock. All of the other non-stocked products can be obtained from the warehouse the same or next day.

With the customer's current sales and inventory system this was a complicated and time consuming process. They had no way to produce a single report that showed product inventory levels and a date range of sales for those same products. They had to run two separate reports, dump them to Excel, and then write lookup formulas just to produce useable data. Then, they had to do multiple sorts in order to produce a top 50 list for each product category. This full process had to be repeated for each location.

The Solution:

AutoCube. Because this exercise often took several days to accomplish the customer only ran the report a couple of times a year. They were hoping to do this analysis more often, and with AutoCube they are able to look at it any time they want, since they can produce a finished report in just a few of minutes.

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We start the process by selecting a location and the previous four full months of sales, then sorting the result by descending sales dollars.

They also add in the current on-hand inventory balance and cost.

	A	B	C	D	E
1	Region-Loc	03-TAMPA-FL <input type="button" value="v"/>			
2	Invoice Date	(Multiple Items) <input type="button" value="v"/>			
3					
4	Values				
5	Row Labels <input type="button" value="v"/>	On Hand Qty	Ext Cost On Hand	Qty Shp	Ext Cost - Sales
6	⊕ CHL	4,816	6,701.34	34,837	45,474.68
7	⊕ WAB	3,325	57,258.77	1,802	38,049.59
8	⊕ EXI	66	3,277.29	756	29,166.04
9	⊕ MIS	97	2,600.11	190	24,109.95
10	⊕ GOO	2,031	22,103.12	1,848	19,860.97
11	⊕ BAD	439	4,714.31	3,543	18,898.13
12	⊕ SPO	3,618	8,420.73	13,865	18,529.19
13	⊕ ANC	1,107	2,928.25	5,690	17,065.65
14	⊕ PPB	973	15,815.22	1,293	16,952.01
15	⊕ FEP	1,605	26,575.70	1,541	15,537.41
16	⊕ BAL	2,196	28,847.31	960	14,292.74
17	⊕ ANT	616	4,746.25	2,582	14,157.85
18	⊕ CAR	382	12,422.22	371	13,637.24
19	⊕ MON	1,899	53,656.53	484	12,284.22

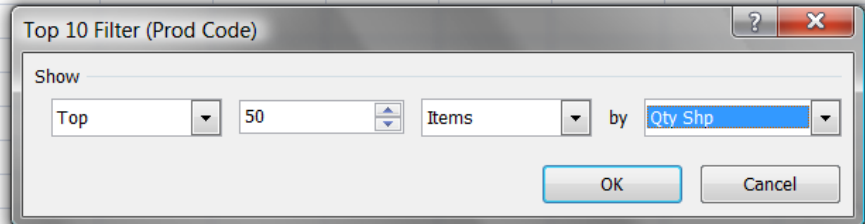
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The next step is to drill down to the product category level.

	A	B	C	D	E
1	Region-Loc	03-TAMPA-FL			
2	Invoice Date	(Multiple Items)			
3					
4	Values				
5	Row Labels	On Hand Qty	Ext Cost On Hand	Qty Shp	Ext Cost - Sales
6	CHL	4,816	6,701.34	34,837	45,474.68
7	01-OIL FILTERS	1,074	1,399.54	5,505	7,528.05
8	03-AIR FILTERS	579	1,430.47	2,112	6,558.33
9	05-FUEL FILTER	443	1,126.21	933	2,455.92
10	06-BULK OIL FILTERS	2,720	2,745.12	26,287	28,932.38
11	WAB	3,325	57,258.77	1,802	38,049.59
12	EXI	66	3,277.29	756	29,166.04
13	MIS	97	2,600.11	190	24,109.95
14	GOO	2,031	22,103.12	1,848	19,860.97

Then, drill down to the final level, the individual part number, and sort by descending quantity shipped

	A	B	C	D	E	F	G	H	I
1	Region-Loc	03-TAMPA-FL							
2	Invoice Date	(Multiple Items)							
3									
4									
5	Row Labels	Prod Desc	Prod Nbr	Reord Pt Qty	Sfty Stk Qty	On Hand Qty	Ext Cost On Hand	Qty Shp	Ext Cost - Sales
6	CHL					4,816	6,701.34	34,837	45,474.68
7	01-OIL FILTERS					1,074	1,399.54	5,505	7,528.05
8	194725*3	Spin Oil Filtr;PP	PH820	3	12	76	80.56	676	757.02
9	34098*3	Spin Oil Filtr;PP	PH47	24	12	60	58.80	584	608.89
10	1131022*3	Cart. Oil Filtr;PP	P3244	36	6	43	67.08	487	843.37
11	158677*3	Spin Oil Filtr;PP	PH253	72	12	121	128.26	379	424.65
12	34086*3	Spin Oil Filtr;PP	PH2835	3	12	37	36.26	294	306.90
13	313887*3	Spin Oil Filtr;PP	PH2867	2	6	26	28.60	272	402.67
14	130667*3	Spin Oil Filtr;PP	PH2808	2	12	70	68.60	270	283.95
69	3456941*3	OIL FILTER	PH2809	0	0	1	1.99		
70	34079*3	Spin Oil Filtr;PP	PH2816	1	0	1	1.06		
71	03-AIR FILTERS					579	1,430.47	2,112	6,558.33



Since a number of the product categories have quite a bit more than 50 items this presents an issue, like in the example above which has 63 items in the category 01-Oil Filters. While the customer previously had to manually identify each set of top 50 items on his spreadsheet, with AutoCube he can simply use the Top Filter function to display the top 50 items only.

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The items are now filtered to the top 50 part numbers in each product category.

The customer can now analyze the data and determine what changes to make to the quantity currently on hand as well as the safety stock and reorder point levels.

	A	B	C	D	E	F	G	H	I
1	Region-Loc	03-TAMPA-FL							
2	Invoice Date	(Multiple Items)							
3									
4									
5	Row Labels	Prod Desc	Prod Nbr	Reord Pt Qty	Sfty Stk Qty	On Hand Qty	Ext Cost On Hand Qty Shp	Ext Cost - Sales	
6	CHL					4,816	6,701.34	5,505	45,474.68
7	01-OIL FILTERS					1,074	1,399.54	5,837	7,528.05
8	194725*3	Spin Oil Filtr;PP	PH820	3	12	76	80.56	676	757.02
9	34098*3	Spin Oil Filtr;PP	PH47	24	12	60	58.80	584	608.89
10	1131022*3	Cart. Oil Filtr;PP	P3244	36	6	43	67.08	487	843.37
11	158677*3	Spin Oil Filtr;PP	PH253	72	12	121	128.26	379	424.65
12	34086*3	Spin Oil Filtr;PP	PH2835	3	12	37	36.26	294	306.90
13	313887*3	Spin Oil Filtr;PP	PH2867	2	6	26	28.60	272	402.67
14	130667*3	Spin Oil Filtr;PP	PH2808	2	12	70	68.60	270	283.95
56	1246409*3	FILTERS	LP2016	0	0	-	-	2	11.48
57	1756678*3	FILTER	P964	0	0	-	-	1	3.58
58	03-AIR FILTERS					323	771.99	1,849	5,646.86

Repeating this analysis for another location is as simple as changing the location filter in cell B1.

The data will refresh with the top 50 products by category for the new location, as you can see by comparing the original report above with the new report below.

	A	B	C	D	E	F	G	H	I
1	Region-Loc	29-MONTGOMERY-AL							
2	Invoice Date	(Multiple Items)							
3									
4									
5	Row Labels	Prod Desc	Prod Nbr	Reord Pt Qty	Sfty Stk Qty	On Hand Qty	Ext Cost On Hand Qty Shp	Ext Cost - Sales	
19	CHL					1,020	1,295.59	5,489	8,982.51
20	01-OIL FILTERS					420	495.71	865	1,649.51
21	313887*29	Spin Oil Filtr;PP	PH2867	14	3	56	61.60	128	192.68
22	130667*29	Spin Oil Filtr;PP	PH2808	28	12	33	32.34	88	115.42
23	34098*29	Spin Oil Filtr;PP	PH47	12	12	23	22.54	53	64.13
24	194725*29	Spin Oil Filtr;PP	PH820	14	12	12	12.72	43	49.08
25	34071*29	PARTS_PLUS_OIL_FILTER	PH1A	0	0	-	-	38	44.85
26	1314195*29	Cart. Oil Filtr;PP	P960	5	1	10	21.30	34	69.39
27	1131022*29	Cart. Oil Filtr;PP	P3244	11	2	4	6.24	33	69.50
28	34086*29	Spin Oil Filtr;PP	PH2835	18	12	3	2.94	31	34.52
29	120745*29	Spin Oil Filtr;PP	PH2840	13	12	8	8.80	31	46.68
30	3403135*29	Spin Oil Filtr;PP	PH48	6	2	9	15.30	31	48.77
31	158677*29	Spin Oil Filtr;PP	PH253	14	12	26	27.56	27	30.48
32	702703*29	Spin Oil Filtr;PP	PH2005	6	0	6	7.32	26	42.52
33	3469240*29	Cart. Oil Filtr;PP	P3986	2	0	4	7.92	25	183.25