

Xcelsius Tricks Part 1 - Find Top 5 Entries in SAP Crystal Dashboard Design



Applies to:

Xcelsius 2008 (SAP Crystal Dashboard Design). For more information, visit the [Business Objects homepage](#).

Summary

This document explains how to show top five (or bottom five) entries from a data set. As the functionality is not available for discreet data set, this document shows the step-by-step process to display only these entries.

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Author Bio



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Introduction

Data can be displayed in ascending as well as in descending order using charts. To show top or bottom entries using charts (to display Top Region sales), it is possible to change the property of the chart to display sales in ascending or descending order using Behavior enable shorting.

But in certain situations only the top five entries must be displayed on the screen. This functionality is not available with Xcelsius Components.

This document is intended to show the steps required to display the top five entries with the help of standard visual components.

Note: As it is not possible to achieve this with standard Xcelsius components, it is necessary to do some formatting on the Excel level.

System Requirements

Xcelsius 2008 SP3 (SAP Crystal Dashboard Design)

Excel Formatting

Suppose there is data for region sales for 12 regions (coming from Database). It is necessary to display the top five regions. This assumes the data already exists in the spreadsheet.

Below figure shows a sample data set that we are going to use for explanation.

	A	B	C
1			
2	SI No	Reagion	Sales
3	1	Alabama	\$345.00
4	2	Arizona	\$4,567.00
5	3	Arkansas	\$2,567.00
6	4	California	\$1,345.00
7	5	Colorado	\$2,234.00
8	6	Connecticut	\$3,576.00
9	7	Delaware	\$2,456.00
10	8	District of Columbia	\$1,345.00
11	9	Florida	\$2,345.00
12	10	Georgia	\$4,566.00
13	11	Idaho	\$3,456.00
14	12	Illinois	\$7,643.00

Note: We will be using three excel formulas for this example:

MAX(range) : this function is used to find the maximum out of a given set of numbers.

MATCH(lookup value, Search array, [Match Type]) : Is used to search the row number of a particular search item.

IF(logical_test, value_if_true, value_if_false) : condition to eliminate the maximum out of a set of values of values.

INDEX(array, cell no(row), column_num) : It is used to pick data at a particular cell

On the adjacent cell, manipulate the data set. Below is the snapshot of the formulas used for manipulation starting from E2.

The formulas on those cells will end up calculating the maximum at E3, location at cell E5 and F3:F14 shows the data set except the maximum (E3 which is \$7,643.00).

	D	E	F
1			
2		Rank1	Sales
3		\$7,643.00	345
4		Cell No	4567
5		12	2567
6			1345
7			2234
8			3576
9			2456
10			1345
11			2345
12			4566
13			3456
14			

	D	E	F
1			
2		Rank1	Sales
3		MAX(C3:C14)	IF(\$E\$5=A3,"",C3)
4		Cell No	IF(\$E\$5=A4,"",C4)
5		MATCH(E3,C3:C14,0)	IF(\$E\$5=A5,"",C5)
6			IF(\$E\$5=A6,"",C6)
7			IF(\$E\$5=A7,"",C7)
8			IF(\$E\$5=A8,"",C8)
9			IF(\$E\$5=A9,"",C9)
10			IF(\$E\$5=A10,"",C10)
11			IF(\$E\$5=A11,"",C11)
12			IF(\$E\$5=A12,"",C12)
13			IF(\$E\$5=A13,"",C13)
14			IF(\$E\$5=A14,"",C14)

Cell E3 becomes the topmost data out of all. Range F3:F14 will now act as the new data set for second topmost data.

Repeat the same formula as above for the calculation of second height data.

	G	H	I	J	K	L
1						
2		Rank2	Sales		Rank3	Sales
3		\$4,567.00	345		MAX(I3:I14)	IF(\$K\$5=A3,"",I3)
4		Cell No			Cell No	IF(\$K\$5=A4,"",I4)
5		2	2567		MATCH(K3,I3:I14,0)	IF(\$K\$5=A5,"",I5)
6			1345			IF(\$K\$5=A6,"",I6)
7			2234			IF(\$K\$5=A7,"",I7)
8			3576			IF(\$K\$5=A8,"",I8)
9			2456			IF(\$K\$5=A9,"",I9)
10			1345			IF(\$K\$5=A10,"",I10)
11			2345			IF(\$K\$5=A11,"",I11)
12			4566			IF(\$K\$5=A12,"",I12)
13			3456			IF(\$K\$5=A13,"",I13)
14						IF(\$K\$5=A14,"",I14)

Cell K3 will calculate Maximum out of I3:I14 (i.e. \$4,567.00), cell K5 calculates cell number of the maximum data (i.e. 10) and L3:L14 will give the new data set excluding \$4,567.00.

Output will look like below:

	G	H	I	J	K	L
1						
2		Rank2	Sales		Rank3	Sales
3		\$4,567.00	345		\$4,566.00	345
4		Cell No			Cell No	
5		2	2567		10	2567
6			1345			1345
7			2234			2234
8			3576			3576
9			2456			2456
10			1345			1345
11			2345			2345
12			4566			
13			3456			3456
14						

Note: Value \$4,567.00 is excluded from the list.

Now L3:L14 becomes the new data set for third height data calculation. Same process is repeated for third, fourth and fifth position (as below).

	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1															
2		Rank1	Sales		Rank2	Sales		Rank3	Sales		Rank4	Sales		Rank5	Sales
3		\$7,643.00	345		\$4,567.00	345		\$4,566.00	345		\$3,576.00	345		\$3,456.00	345
4		Cell No	4567		Cell No										
5		12	2567		2	2567		10	2567		6	2567		11	2567
6			1345			1345			1345			1345			1345
7			2234			2234			2234			2234			2234
8			3576			3576			3576			3576			3576
9			2456			2456			2456			2456			2456
10			1345			1345			1345			1345			1345
11			2345			2345			2345			2345			2345
12			4566			4566									
13			3456			3456			3456			3456			3456
14															
15															

Take the entire formatted data on a single place, so that we can display that data set with the help of Xcelsius visual components (link spread sheet, Grid etc).

	A	B	C
16		Top 5	
17	SI No	Reagion	Sales
18	1	Illinois	\$7,643.00
19	2	Arizona	\$4,567.00
20	3	Georgia	\$4,566.00
21	4	Connecticut	\$3,576.00
22	5	Idaho	\$3,456.00
23			

The above data set displays the Top5 records. This data set we are going to use for Display.

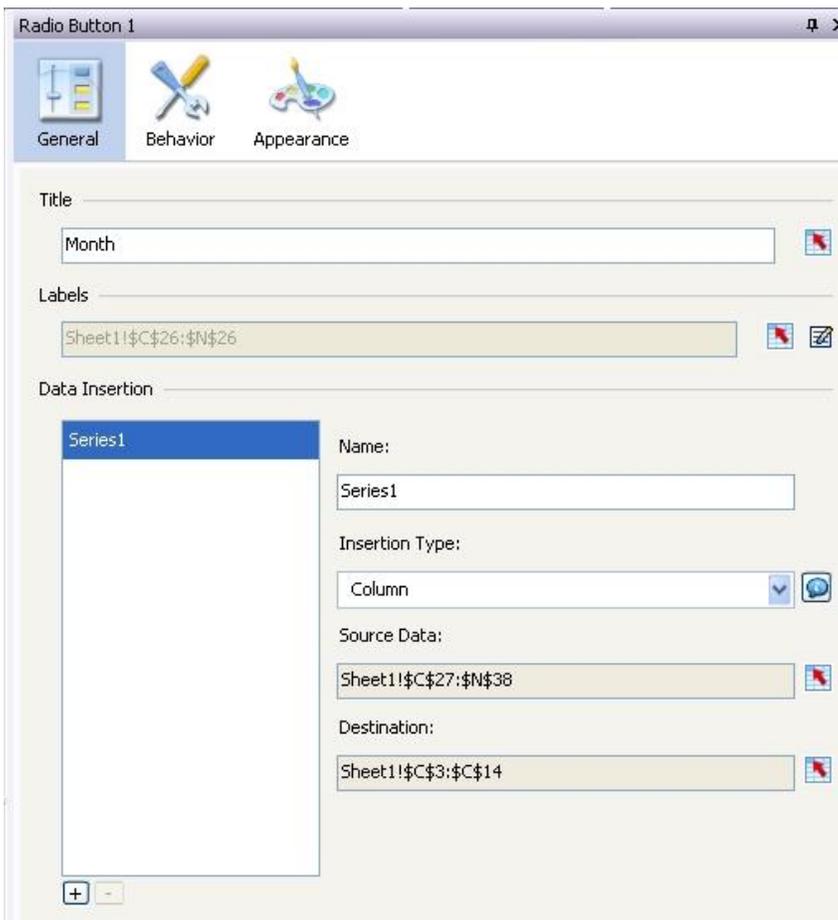
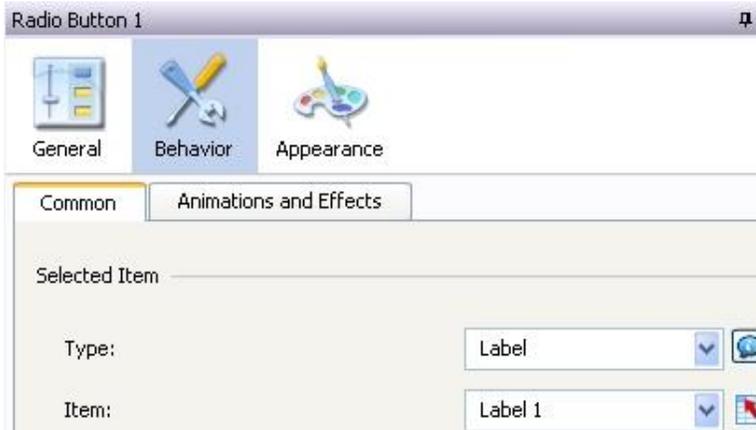
To show the dynamic nature, we will be using Radio button for Month selection and a month wise data set (as below).

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
25														
26	SI No	Reagion	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
27	1	Alabama	\$345.00	\$4,995.00	\$3,140.00	\$2,395.00	\$5,788.00	\$6,612.00	\$4,332.00	\$6,076.00	\$4,992.00	\$2,621.00	\$5,473.00	\$1,712.00
28	2	Arizona	\$4,567.00	\$1,550.00	\$2,317.00	\$5,299.00	\$2,540.00	\$1,072.00	\$5,623.00	\$2,203.00	\$2,186.00	\$1,238.00	\$2,390.00	\$6,479.00
29	3	Arkansas	\$2,567.00	\$2,067.00	\$2,411.00	\$6,026.00	\$3,916.00	\$4,216.00	\$6,459.00	\$2,814.00	\$4,013.00	\$3,404.00	\$3,782.00	\$1,461.00
30	4	California	\$1,345.00	\$6,123.00	\$3,060.00	\$3,746.00	\$6,249.00	\$5,141.00	\$6,811.00	\$2,480.00	\$4,568.00	\$4,140.00	\$2,523.00	\$1,531.00
31	5	Colorado	\$2,234.00	\$4,461.00	\$2,598.00	\$1,750.00	\$1,378.00	\$3,114.00	\$4,427.00	\$4,781.00	\$6,712.00	\$3,453.00	\$1,296.00	\$6,081.00
32	6	Connecticut	\$3,576.00	\$4,365.00	\$1,452.00	\$3,598.00	\$1,688.00	\$1,892.00	\$6,189.00	\$2,278.00	\$3,624.00	\$6,395.00	\$5,281.00	\$2,991.00
33	7	Delaware	\$2,456.00	\$4,653.00	\$5,817.00	\$6,938.00	\$5,888.00	\$2,009.00	\$5,551.00	\$5,202.00	\$1,966.00	\$1,316.00	\$6,658.00	\$2,263.00
34	8	District of Columbia	\$1,345.00	\$2,603.00	\$3,697.00	\$2,167.00	\$5,615.00	\$1,076.00	\$6,067.00	\$1,269.00	\$6,782.00	\$1,310.00	\$2,243.00	\$6,510.00
35	9	Florida	\$2,345.00	\$4,469.00	\$4,854.00	\$1,839.00	\$2,296.00	\$3,823.00	\$6,993.00	\$5,828.00	\$4,314.00	\$5,605.00	\$1,737.00	\$3,802.00
36	10	Georgia	\$4,566.00	\$4,753.00	\$6,553.00	\$4,176.00	\$2,700.00	\$4,505.00	\$6,670.00	\$3,788.00	\$1,979.00	\$3,884.00	\$4,438.00	\$6,333.00
37	11	Idaho	\$3,456.00	\$3,394.00	\$5,101.00	\$1,787.00	\$5,892.00	\$2,892.00	\$5,083.00	\$1,497.00	\$1,640.00	\$3,237.00	\$1,978.00	\$4,857.00
38	12	Illinois	\$7,643.00	\$4,772.00	\$5,028.00	\$2,718.00	\$2,408.00	\$2,324.00	\$5,263.00	\$6,863.00	\$1,711.00	\$2,262.00	\$6,990.00	\$5,422.00
39														

Xcelsius Activity

Here are the steps:

1. Import (Ctrl + Alt + I) Excel sheet prepared in previous steps inside Xcelsius.
2. Drag and drop a Radio button component inside the design canvas. It will display Months, select cell no C26:N26 as Label for the radio button.
3. Add a series in the data insertion tab (radio button property), select *column* from the *Insertion Type* dropdown.
4. Select range C27:N38 as the *Source Field* and C3:C14 as *Destination* (so now on selection of radio button the data set will change). Set the *Selection* Item as Label1.



5. Drag and drop two *List Views* inside the design canvas and map the first one (the original records) to cell A2:C14 and the second one to A17:C22 (the result set).

Original Data Set			Top 5		
SI No	Reagion	Sales	Si No	Reagion	Sales
1	Alabama	\$345.00	1	Illinois	\$7,643.00
2	Arizona	\$4,567.00	2	Arizona	\$4,567.00
3	Arkansas	\$2,567.00	3	Georgia	\$4,566.00
4	California	\$1,345.00	4	Connecticut	\$3,576.00
5	Colorado	\$2,234.00	5	Idaho	\$3,456.00
6	Connecticut	\$3,576.00			
7	Delaware	\$2,456.00			
8	District of Columbia	\$1,345.00			
9	Florida	\$2,345.00			
10	Georgia	\$4,566.00			
11	Idaho	\$3,456.00			
12	Illinois	\$7,643.00			

When selecting a month from the Radio Button, it will copy a new data set for each month and Internal Excel formulas will make the calculation of Top 5 Region sales.

Month	Original Data Set			Top 5		
	SI No	Reagion	Sales	Si No	Reagion	Sales
<input type="radio"/> Jan	1	Alabama	\$3,140.00	1	Georgia	\$6,553.00
<input type="radio"/> Feb	2	Arizona	\$2,317.00	2	Delaware	\$5,817.00
<input checked="" type="radio"/> Mar	3	Arkansas	\$2,411.00	3	Idaho	\$5,101.00
<input type="radio"/> Apr	4	California	\$3,060.00	4	Illinois	\$5,028.00
<input type="radio"/> May	5	Colorado	\$2,598.00	5	Florida	\$4,854.00
<input type="radio"/> Jun	6	Connecticut	\$1,452.00			
<input type="radio"/> Jul	7	Delaware	\$5,817.00			
<input type="radio"/> Aug	8	District of Columbia	\$3,697.00			
<input type="radio"/> Sep	9	Florida	\$4,854.00			
<input type="radio"/> Oct	10	Georgia	\$6,553.00			
<input type="radio"/> Nov	11	Idaho	\$5,101.00			
<input type="radio"/> Dec	12	Illinois	\$5,028.00			

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