

Xcelsius Tricks Part 2 – Cell Level Alerts in Xcelsius (SAP Crystal Dashboard Design)



Applies to:

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

Summary

This document is intended to show the steps required to create cell level alerts in order to implement scenarios that require different alert range for each cells.

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Author Bio



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Introduction

This document is intended to show the steps required to create cell level alerts in order to implement scenarios that require different alert range for each cells.

Alerts are used to highlight a particular data with respect to some given condition. Alerts are available in charts, icons etc. It is also available in tabular format (Scorecard and Grid).

Note: Alerts are not available for multiple series or in pie charts.

Standard functionality of alerts includes:

- Alerts on the basis of percentage of the target value (as for “As Percentage of Target”)

The screenshot shows the 'Alert Values' section of the configuration dialog. The 'Alert Values' field is set to 'Sheet1!\$G\$5:\$G\$8'. Below it, the 'As Percent of Target' radio button is selected and highlighted with an orange box. The 'By Value' radio button is unselected. The 'Alert Thresholds' section is empty, and the 'Use a Range' checkbox is unchecked.

It can be bound to cells. Those cells will be taken as the reference to calculate the respective percentage or those target values can be manually entered.

Note: Alert Values option is available in case of Scorecard (it is used to select values for each column, the value may or may not be used to display, rather it is used for alert calculations).

Alerts are implemented at column level i.e. alert conditions are same for the entire column.

- Alerts can be taken on the basis of the respective value (on each cell). Here the alert Ranges are taken as reference i.e. Range Min – 30, 30 – 70 and 70 - Max will be taken as target.

The screenshot shows the 'Alert Values' section of the configuration dialog. The 'By Value' radio button is selected and highlighted with an orange box. Below it, the 'Alert Thresholds' section is expanded to show a table with the following data:

From	To
Minimum	30%
30%	70%
70%	Maximum
No Data	

The table is highlighted with an orange box. The 'Enter a value' field and 'Add' button are visible above the table. The 'Use a Range' checkbox is unchecked.

Here also the entire Column will hold the same range as conditions.

Scenario

What if a different alert range is required for each cell in a particular column?

Consider the scenario below:

- **Cell 1** – “0-30 Red ; 30-70 Yellow ; 70-Max Green”
- **Cell 2** – “0-50 Red ; 50-Max Green”
- **Cell 3** – “0-120 Red ; 120-270 Yellow ; 270-Max Green”
- **Cell 4** – “0-0.5 Red ; 0.5-Max Green”

Most of the formatting work will be done on the Excel worksheet.

System Requirements

Xcelsius 2008 SP3 (SAP Crystal Dashboard Design)

Excel formatting

Cell level alert calculation is done on the Excel side. Suppose there is the data set below:

Label	Value
AAA	63
BBB	61
CCC	111
DDD	0.6

The requirement is that there is a different range for each cell. Red, Yellow and Green are the colors used for alerts.

Note: Before going further, study the working of the range set (under alert tab).

Suppose range is defined as 30 (lower limit) – 70 (upper limit). It means all the data that is equal to or greater than 30 and less than 70 are included (i.e. $30 \leq \text{Data} < 70$).

As per the requirement for Label BB range is “0-50 Red; 50-Max Green” (where as in Xcelsius Range is given as “0-30 Red; 30-70 Yellow; 70-Max Green”). Instead of using the Xcelsius range directly, use the “If” condition to calculate the value (with respect to the actual data), which will fall in the Xcelsius Range.

For 61 use logic as `=IF(C6<50,29,100)`

After inserting the Excel formula cells will look like:

Label	Value	Alert
AAA	63	<code>=IF(C5<30,29,IF(C5<70,69,100))</code>
BBB	61	<code>=IF(C6<50,29,100)</code>
CCC	111	<code>=IF(C7<120,29,IF(C7<270,69,100))</code>
DDD	0.6	<code>=IF(C8<0.5,29,100)</code>

It will look like this: (29, 69 and 100 are taken as reference to keep them inside the range defined in Xcelsius Alerts.)

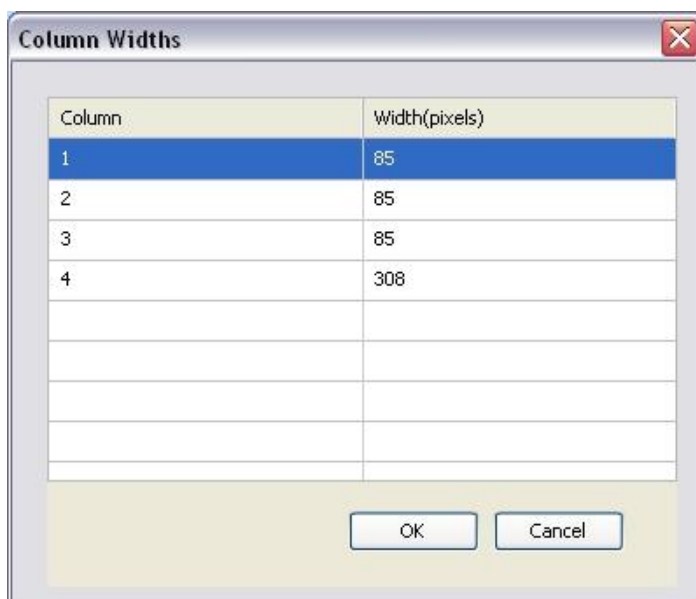
Label	Value	Alert
AAA	63	69
BBB	61	100
CCC	111	29
DDD	0.6	100

Excel snapshot will look like:

	A	B	C	D	E
1					
2			Calculated Cells		
3					
4		Label	Value	Alert	Range
5		AAA	63	69	0-30 Red ; 30-70 Yellow ; 70-Max Green
6		BBB	61	100	0-50 Red ; 50-Max Green
7		CCC	111	29	0-120 Red ; 120-270 Yellow ; 270-Max Green
8		DDD	0.6	100	0-0.5 Red ; 0.5-Max Green
9					
10					
11	NOTE:	Lower range is included and the upper range is excluded i.e. in first case for 30-70 , 70 is excluded where as 30 is included.			
12					

Xcelsius activity

1. Insert a Scorecard component on the design canvas. Map the *Data Display* with *Sheet1!\$B\$4:\$E\$8*
2. Go to the *Appearance* tab set the *Custom Column Widths* as:



3. Go to the *Alerts* Tab. Enable Alerts as follows:

Show	Column
<input checked="" type="checkbox"/>	All Columns
<input type="checkbox"/>	Label
<input type="checkbox"/>	Value
<input checked="" type="checkbox"/>	Alert
<input type="checkbox"/>	Range

4. Select *Alert Values* as *Sheet1!\$D\$5:\$D\$8* (Column with el formulas). Select *By Value* radio button.

Alert Values:

As Percent of Target:

By Value

5. Set the alerts as follows:

Alert Thresholds

Use a Range

Enter a value

<input checked="" type="checkbox"/>	From	To	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Minimum	30	<input type="checkbox"/>
<input type="checkbox"/>	30	70	<input checked="" type="checkbox"/>
<input type="checkbox"/>	70	Maximum	<input checked="" type="checkbox"/>
<input type="checkbox"/>	No Data		<input type="checkbox"/>

Enable Auto Colors

Color Order

Low values are good
 Middle values are good *(percent alerts only)*
 High values are good

Alert Threshold will always depend on the cell with maximum number of range set (i.e. if a cell requires four color codes to define it correctly use the same number of colors in Xcelsius).

On preview the component will look as follows:

Cell Level Alert			
Label	Value	Alert	Range
AAA	63		0-30 Red ; 30-70 Yellow ; 70-Max Green
BBB	61		0-50 Red ; 50-Max Green
CCC	111		0-120 Red ; 120-270 Yellow ; 270-Max Green
DDD	0.6		0-0.5 Red ; 0.5-Max Green

Note: Only in scorecard we can find two checkboxes under Alert Threshold. With this one can change the appearance of the alert (one can show alerts with the help of icons or with colored cells).
 If the 2nd checkbox is selected, the alert will look like:

Alert Thresholds

Use a Range

Enter a value

From To

Cell Level Alert			
Label	Value	Alert	Range
AAA	63		0-30 Red ; 30-70 Yellow ; 70-Max Green
BBB	61		0-50 Red ; 50-Max Green
CCC	111		0-120 Red ; 120-270 Yellow ; 270-Max Green
DDD	0.6		0-0.5 Red ; 0.5-Max Green

Related Content

[Business Objects homepage](#)

[Xcelsius 2008 User Guide](#)

For more information, visit the [Business Objects homepage](#).

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