

How to create a simple SPC chart (using Microsoft Excel 2010)

Follow the initial steps for [creating a simple run chart](#).

For an SPC chart, create four further columns - Mean, UCL, LCL and Sigma, e.g.:

	A	B	C	D	E	F	G
1	Date	%	Mean	UCL	LCL	Sigma	
2	Jan-14	46					
3	Feb-14	57					
4	Mar-14	68					
5	Apr-14	65					
6	May-14	43					
7	Jun-14	62					
8	Jul-14	74					
9	Aug-14	55					
10	Sep-14	49					
11	Oct-14	71					
12	Nov-14	81					
13	Dec-14	79					
14							

In cell C2, type: **=AVERAGE(\$B\$2:\$B\$XX)**

In D2, type: **=C2+3*F2**

In E2, type: **=C2-3*F2**

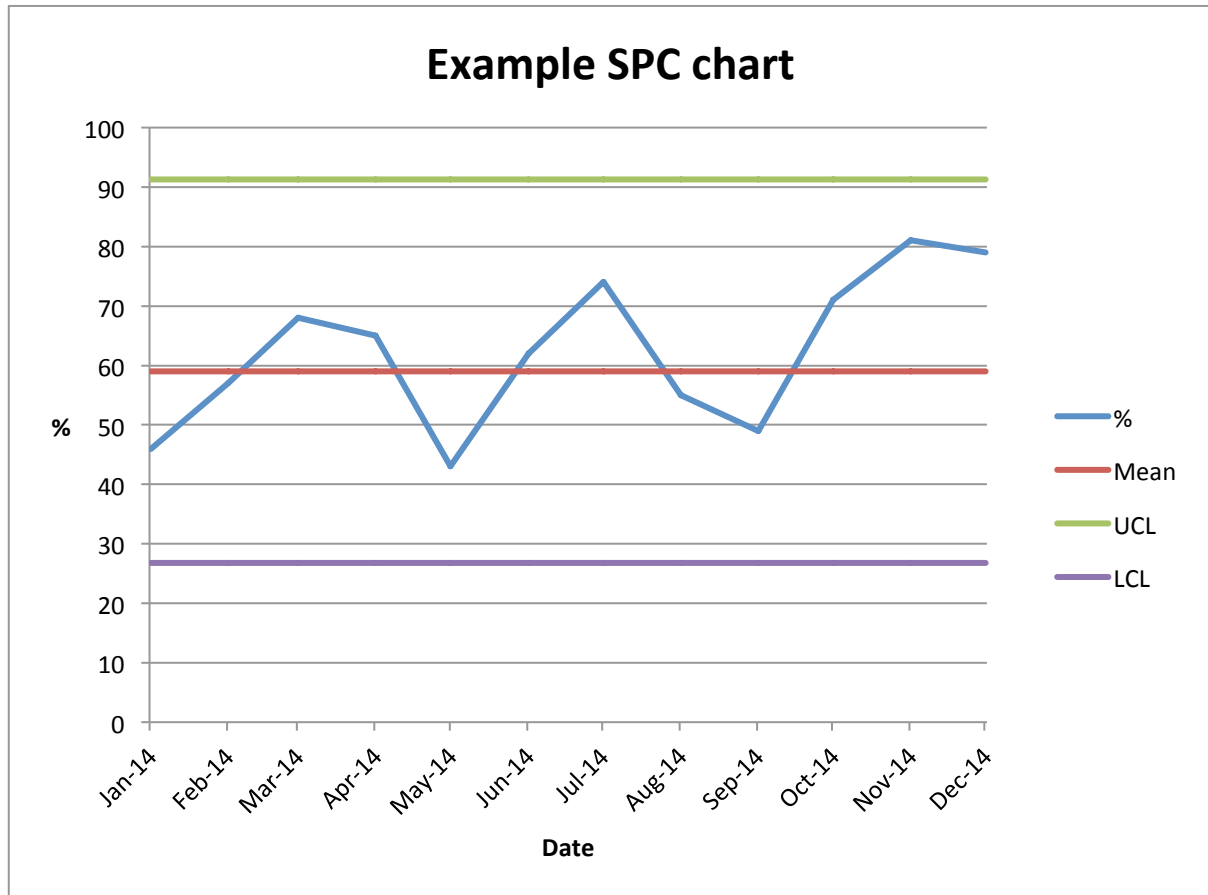
In F2, type: **=STDEVA(\$B\$2:\$B\$XX)**

Now highlight cells C2 across to F2 and fill down against all the values in column B;

Hopefully your data should now look something like:

	A	B	C	D	E	F	G
1	Date	%	Mean	UCL	LCL	Sigma	
2	Jan-14	46	59	91.24903	26.75097	10.74968	
3	Feb-14	57	59	91.24903	26.75097	10.74968	
4	Mar-14	68	59	91.24903	26.75097	10.74968	
5	Apr-14	65	59	91.24903	26.75097	10.74968	
6	May-14	43	59	91.24903	26.75097	10.74968	
7	Jun-14	62	59	91.24903	26.75097	10.74968	
8	Jul-14	74	59	91.24903	26.75097	10.74968	
9	Aug-14	55	59	91.24903	26.75097	10.74968	
10	Sep-14	49	59	91.24903	26.75097	10.74968	
11	Oct-14	71	59	91.24903	26.75097	10.74968	
12	Nov-14	81	59	91.24903	26.75097	10.74968	
13	Dec-14	79	59	91.24903	26.75097	10.74968	
14							

Now to add the control lines to your chart, click on the chart, then click once more on the grey frame outline of the chart. Column B should appear highlighted in blue. Drag the blue outline to include the values in columns C, D and E (not F) as well as column B. Three horizontal control lines should appear on the chart, e.g.:



As with the [run chart](#), you can add chart and axis titles and format the axes by clicking on the chart and then clicking on 'Layout' under 'Chart Tools' on the formatting ribbon above.

[Click here](#) for a template of the example data.

Good luck!