

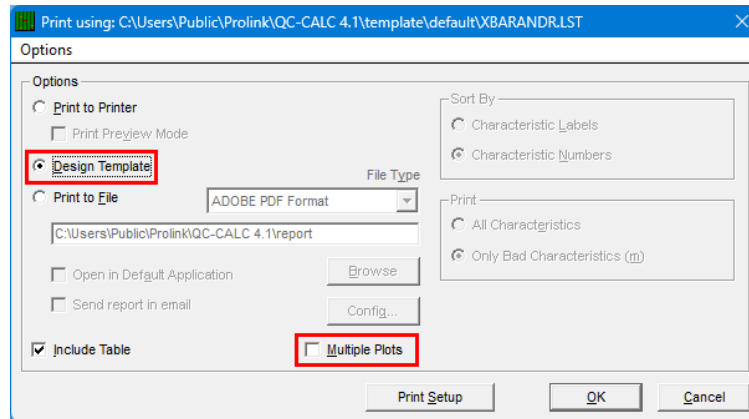
Reporting – Inserting Cpk into XBar & Range

The default XBar and Range report does not show the Cpk value, but it is possible to add that value into the template. This document gives step by step directions for inserting the Cpk value into the default XBar and Range full page template. These same general instructions can be used for inserting other values into reports also.

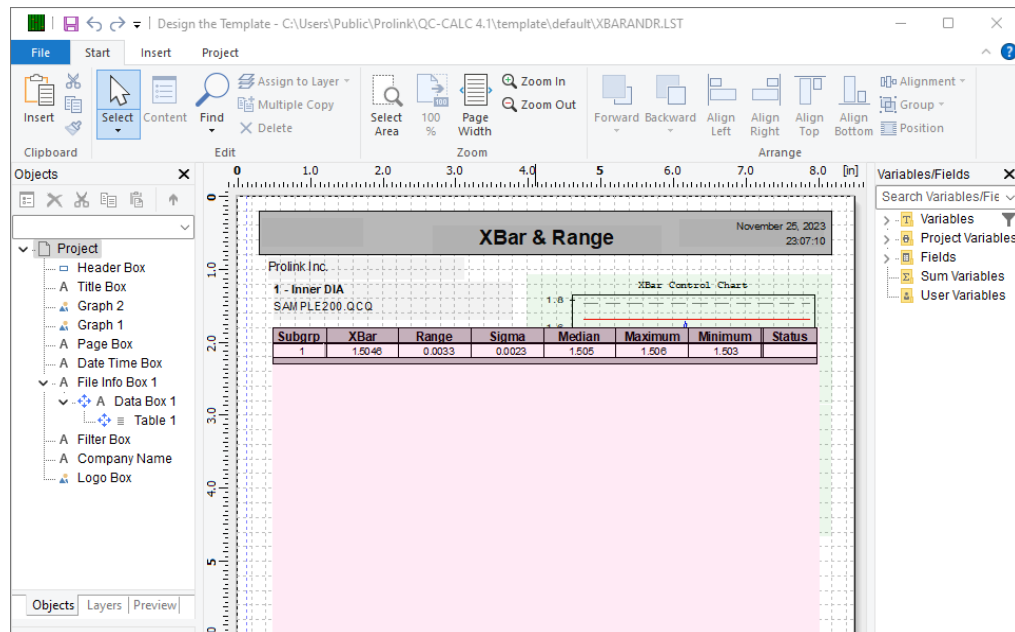
Getting into the Report Designer

In order to add the Cpk value to the report, the Report Designer must be used. These are the general steps for getting into the Report Designer for the template we are about to change.

1. From QC-CALC SPC choose the **Report – XBar & Range** menu.
2. Choose the dimensions and click **OK**.
3. On the next screen that shows the 2 graphs, click the **Print** button.



4. The next screen is the Print screen. Verify the template shown at the top of the window is the template you want to edit (use the **Options – Select Templates** menu to change the template location or the **Options – Copy Templates** menu to move a copy of the template to a different location). Make sure the **Multiple Plots** check box is unchecked, then choose **Design Template** and click **OK**.



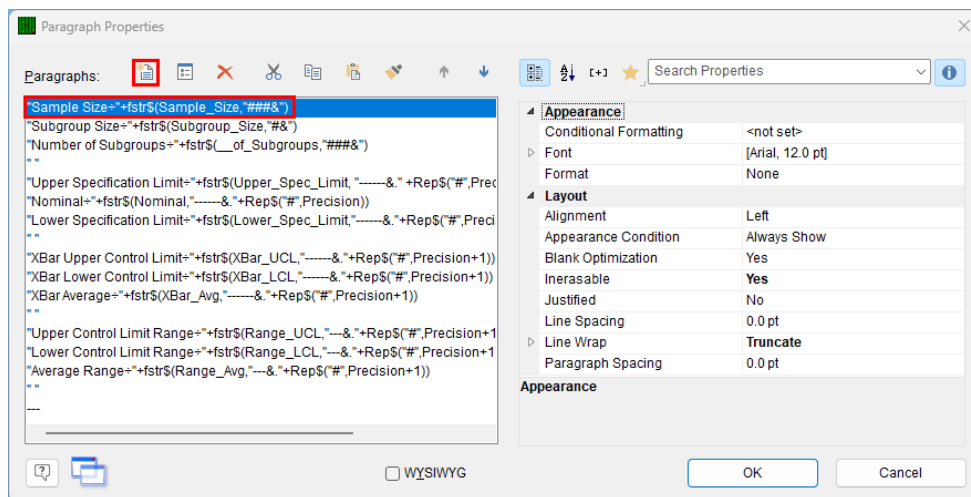
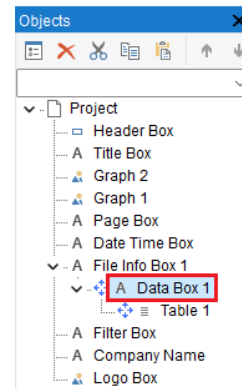
5. The Report Designer now appears on the screen.

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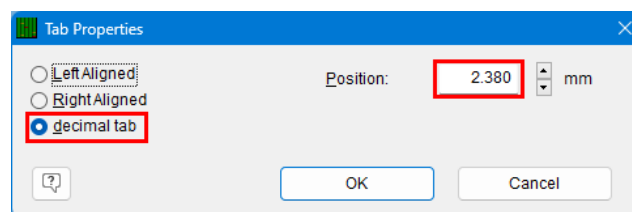
Adding Cpk to the Calculation Box

These directions will talk you through adding the Cpk value to the box that contains the rest of the calculations.

1. In the **Object List** in the upper left corner (**View – Windows – Object List** if it is not visible) double click on the “Data Box 1” object (you can also double click on the item on the right side of the screen and accomplish the same thing).
2. The **Paragraph Properties** window is now displayed. Highlight the line you would like to have below the Cpk line we are going to add and click the **Insert a Paragraph** button.

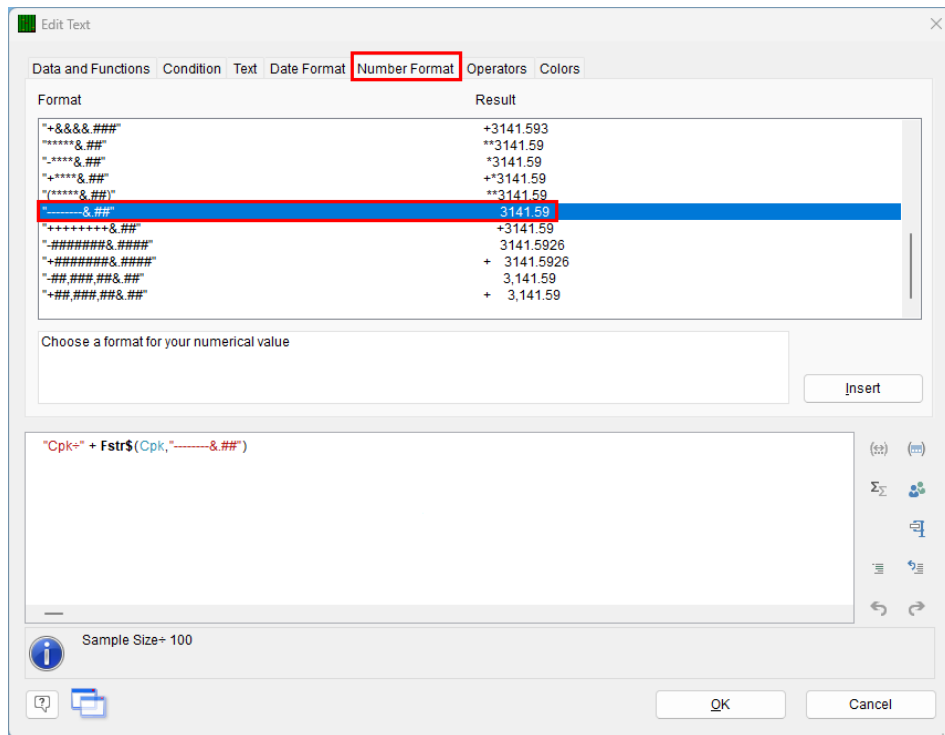


3. In the **Edit Text** window that appears, go to the **Text** tab and type “Cpk” in the upper box, then click the **Tab** button. This will insert a ÷ sign after the “Cpk” you typed. In the **Tab Properties** window that opens, select “decimal tab” and set the “Position” to “2.380”. To verify this value is correct and will line up with everything else you can look at the **Tab** setting for one of the lines around where you inserted the Cpk line.

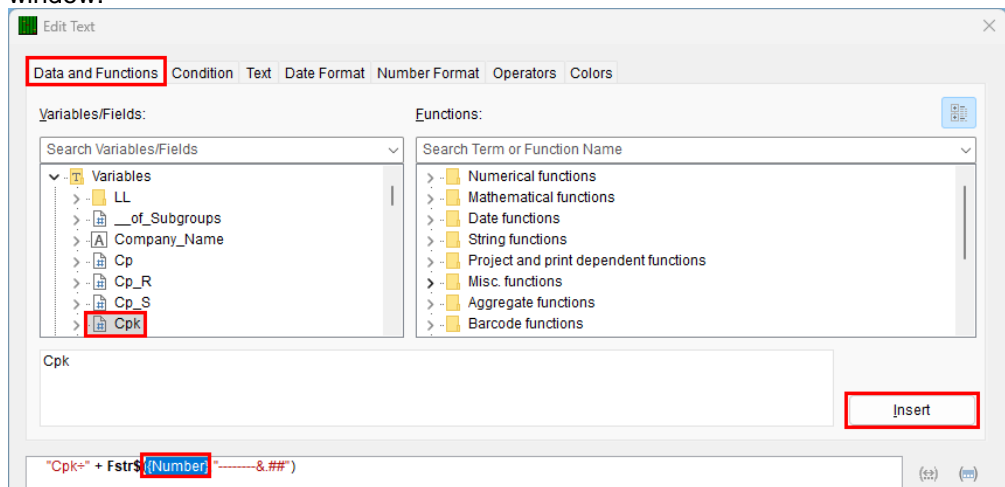


4. Now click the **Insert** button. The text you typed will automatically be surrounded by the “ ” that are necessary and shown in the bottom window.
5. Now go to the **Number Format** tab, choose “-----& . ##”, and click the **Insert** button. This format can be adjusted to hold more decimal places by adding more # in the bottom window (i.e. “-----& . #####”).

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- With the “{Number}” item highlighted in the lower window, click on the **Variables and Functions** tab. Highlight the Cpk value in the Variable list and click the **Insert** button. The “Cpk” variable will have replaced the “{Number}” in the lower window.



- Now click **OK** on the **Edit Text** and **Paragraph Properties** windows.
- When you look at the “Data Box 1” area of the **Layout Preview** screen you should now see the Cpk line in the box. Make sure that all lines are still visible. You may need to stretch the window to get enough room for all lines to show.
- Click **File – Save**, then **File – Exit** to get out of the Report Designer and run your report to see how it looks.

Cpk	0.63
Subgroup Size	2
Number of Subgroups	50
Upper Specification Limit	1.640
Nominal	1.500
Lower Specification Limit	1.380
XBar Upper Control Limit	1.7365
XBar Lower Control Limit	1.2854
XBar Average	1.5110
Upper Control Limit Range	0.2770
Lower Control Limit Range	0.0000
Average Range	0.0848