Reporting – Reject Count (Rounded) in Raw Data

A previous White Paper discussed having the Actual value rounded to the specified precision for that dimension before the testing for that value being Out of Specification. Once the testing of the Actual values is changed, it is possible the Reject Count that can be shown in the footer will no longer match up with the values shown in red (out of spec). This White Paper will give step by step instructions for adding the Reject count line in the footer and having those values based on Rounded values also.

The Report Designer

The directions shown here will add a row to the footer where the number of fails for each dimension will be displayed and rounded values for the Actual will be tested when counting. This is a lengthy process, but relatively simple to accomplish.

1. From QC-CALC Real-Time choose the **Report – Design Template** menu.



- 2. Choose the DataStat.raw template from the list of files that appears and click **Open**.
- 3. The Report Designer now appears on the screen.





Adding Sum Variables

4. In order to count the number of out of spec values within a dimension based on the rounded values the @Sum variables will need to be used. To set these up choose the **Project – Sum Variables...** menu and click the button shown in the picture below.

Sum Variat	oles		×
<u>A</u> vailable sum	variables:		
Page sum	∇ Name	Sums over	A
Г	@Sum01		

5. On the next screen that appears enter "Dim1RejectCount" as the **Name of the new** variable and click **OK**.

Create new variable	×
Name of the new variable Dim 1 RejectCount	
	OK Cancel

- 6. Back in the Sum Variables window highlight the "@Dim1RejectCount" line, then click the **Edit** button.
- 7. In the **Edit Sum Variable** window you will need to build the test that will either add a 1 or a 0 to the variable for each row in the table. The formula to use for Dimension 1 testing is:

if(Round(Dim_Num_1_Value,Precision_1) > Round(USL_Dim_1,Precision_1) or Round(Dim_Num_1_Value,Precision_1) < Round(LSL_Dim_1,Precision_1),1,0)

Edit Sum Variable		×
Edit Sum Variable	Text Cond() Date\$() FStr\$() Functions:	
If (Round (Dim_Num_1_Value, Precision)	n_1) > Round(USL_Dim_1,Precision_1) or Round(Dim_N	um_1_Ve () ()

 Repeat steps <u>4</u> through <u>7</u> for dimensions 2 through 10. Make sure you adjust the name ("@Dim2RejectCount") and the formula for each dimension number. The formula for Dimension 2 should be:

if(Round(Dim_Num_2_Value,Precision_2) > Round(USL_Dim_2,Precision_2) or Round(Dim_Num_2_Value,Precision_2) < Round(LSL_Dim_2,Precision_2),1,0)

Adding the Footer Line

- 9. Now that we have the @Sum variables all set up, the table needs to be modified to use those values and display the Rejected row in the footer.
- 10. Double-click on the table and the **Table Contents** window will appear. Choose the **Footer Line** tab, click on the down arrow right below the tab name, and choose the "Line Definition 2 (empty)" line.

Table Contents		-	×
Header Line Data Line Footer Line Group Header	Group Footer		
Line Definition 1 - Black Gray Line Line Definition 1 - Black Gray Line Line Definition 1 - Black Gray Line Line Definition 3 (empty) Line Definition 5 (empty) Line Definition 6 (empty) Line Definition 7 (empty) Line Definition 6 (empty) Line Definition 7 (empty) Line Definition 8 (empty) Line Definition 9 (empty) Line Definition 11 (empty) Line Definition 12 (empty) Line Definition 14 (empty) Line Definition 15 (empty)	Action Ink URL Appearance Background Font Rotation Text Format Behaviour Format Layout Alignment Blank Optimization Ft Frame Justfied Vert. Alignment Width	True 0 True none 0 False 0 False 0 9.130	[Yes] [Arial] [0"] [Normal Text] [left] [No] [truncate] [top] [9.130 in]
La <u>v</u> out Appearance <u>C</u> ond	Action		
2		ОК	Cancel

11. With the next screen that appears you are going to specify which line definition you want to use as the basis for this new Footer Line definition. Choose **Headerline** and the "Line Definition Mean" line from the Headerline list.

Choose a Table Line Definition		
The selected line is empty but you can choose a definition of an already existing line:		
• <u>H</u> eaderline	Line Definition Labels	
© <u>D</u> ataline	Line Definition Labels Line Definition File Names	
© <u>F</u> ooterline	Line Definition USL Line Definition LSL	
	Line Definition Mean	
	Line Definition Max Line Definition Min Line Definition Range	
2	Line Definition Cp Line Definition Cp Line Definition Cpk Line Definition Blank Gray Line - 2	

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12. Before going any further the name of the Footer Line that was just created needs to be changed. You will see the "Line Definition Mean (1)" name shown at the top of the screen. Click the button to the right of where the name is shown to bring up the Line **Definitions** screen.

Table Contents		×
Header Line Data Line Footer Line	Group Header Group Footer	
Line Definition Mean (1)	🔽 💽 🗄	0
Line	Action	
📃 🗠 🐜 📾 🗸 V 🖦 🕯		

13. Choose the "Line Definition Mean (1)" line at the top of the screen and change the **Description** at the bottom to be "Line Definition Rejected" then click **OK**.

Line De	efinitions:
<u>T</u> able line	s: 🚯 🐯 🏷 🖶 🍝 🕈
Display	Description
<u></u>	Line Definition 1 - Blank Gray Line
	Line Definition Mean (1)
V.	Line Definition 3 (empty)
되	Line Definition 4 (empty)
N	Line Definition 5 (empty)
되	Line Definition 6 (empty)
되	Line Definition 7 (empty)
N	Line Definition 8 (empty)
지	Line Definition 9 (empty)
	Line Definition 10 (emoty)
<u>D</u> escriptio	n: Line Definition Rejected
Use butto	ns to rearrange the sequence.
2	OK Cancel

- 14. Back on the **Table Contents Footer Line** screen you will see that the name of the line being edited has changed to "Line Definition Rejected" so now we need to change the line over to show the reject count instead of the Mean it is displaying at the moment.
- 15. Double-click on the "Mean" line on the left side of the screen and the **Edit Table** window appears. Change "Mean" to "Rejected" to change the label for that row in the table.
- 16. Next double-click on the "if(Upper\$(Dim_Source_1)=..." line. We are going to remove the formula to display the Mean and replace it with the values from the @Sum variables previously created. Replace the formula shown at the bottom of the Edit Table window with:

fstr\$(@Dim1RejectCount,"###&")

Edit Table	# E5	×
Variables and Functions Functions	+ - * / Text Cond() Date\$() FStr\$()	
Fields Fields Fields Fields Assignable_Causes Masignable_Causes_1 Masignable_Causes_2 Masignable_Causes_3 Masignable_Causes_Label_1 Masignable_Causes_Label_2 Masignable_Causes_Label_3 Macourtive_Actions_1 Macourtive_Ac	Functions:	() i i Q
		Insert
fstr\$(@Dim1RejectCount,"###&')		(:) ()
		► ₽ (24
0	ОК	Cancel

Reporting – Reject Count (Rounded) in Raw Data

17. Repeat step <u>16</u> for dimensions 2 through 10. The formula will change slightly for each dimension:

fstr\$(@Dim<mark>2</mark>RejectCount,"###&")

18. When you've finished the Table Contents – Footer Line screen should look like this:

Table Contents			×
Header Line Data Line Footer Line Group Header	Group Footer		
Line Definition Rejected			0
line	Action		
	Link URL		
<u>X % 🖻 🖪 🔶 🔶 🖊 </u>	Appearance		
"Rejected"	Background	False	[No]
n n *			[Aria]
fstr\$(@Dim1RejectCount,"###&")	Rotation	0	[0°]
fstr\$(@Dim2RejectCount, ###&)	Text Format	True	[Normal Text]
fstr\$(@Dim4RejectCount,"###&")	Behaviour		
fstr\$(@Dim5RejectCount,"###&")	Format	none	
fstr\$(@Dim6RejectCount, "###&") fstr\$(@Dim7RejectCount, "####&")	Layout		
fstr\$(@Dim/RejectCount, ####&)		3	[decimal]
fstr\$(@Dim9RejectCount,"###&")	Blank Optimization	False	[No]
fstr\$(@Dim10RejectCount,"###&")	Fit	0	[truncate]
	Frame		
	Justified	False	[No]
	Vert. Alignment	0	[top]
	Width	0.700	[0.700 in]
Layout Appearance Cond	Action		
3		ОК	Cancel

- 19. The last thing to be done is to copy the gray line between the data line section and the new footer line we just created and have that copy appear below the new line.
- 20. In the **Table Contents Footer Line** screen click on the down-arrow right below the tab name, and choose the "Line Definition 3 (empty)" line.
- 21. With the next screen that appears you are going to specify which line definition you want to use as the basis for this new Footer Line definition. Choose Footerline and the "Line Definition 1 Blank Gray Line" line from the Footerline list.

Choose a Table Line Definition			
The selected line is emp line:	ty but you can choose a definition of an already existing		
) <u>H</u> eaderline	Line Definition Labels		
) <u>D</u> ataline	Line Definition 1		
<u>Footerline</u>	Line Definition 1 - Blank Gray Line		
2	OK <u>N</u> one		

- 22. You will see the "Line Definition 1 Blank Gray Line (1)" name shown at the top of the screen. Click the button to the right of where the name is shown (like you did in step <u>12</u>) to bring up the Line Definitions screen.
- Choose the "Line Definition 1 Blank Gray Line (1)" line at the top of the screen and change the **Description** at the bottom to be "Line Definition 3 - Blank Gray Line" then click **OK**.
- 24. You have now made all the necessary changes so you can use the **File Save** menu to save your changes and **Exit** the Report Designer. You will be asked if you changed the number of dimensions in the table of your report. Click the **No** button on that screen and you are done.