

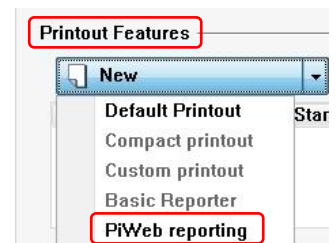
With Additional Printout turn on in Calypso, the PiWeb report generates support data for many of the GD & T characteristics. For example: True Position with MMC in the PiWeb Report has the axial support data with tolerances and an additional line (M) where the MMC is removed from the measured value instead of being added to the upper specification limit (this is done for statistical purposes, remember PiWeb is an SPC software as well as a reporting software). This may make the report difficult to read and explain. The purpose of this document is to create a cleaner/simplified version of the standard PiWeb report that cleans up the Protocol Header, helps the Additional Printout (support data) stand out, and remove the (M) lines from the report.

Default PiWeb Report		Name	Measured value	Nominal value	+Tol	-Tol	Deviation	+/-
		01 Flatness of Datum A D3	0.0094	0.0000	0.0500	0.0000	0.0094	
		02 Perpendicularity Datum C to A and B	0.0239	0.0000	0.2000	0.0000	0.0239	
		03 Diameter 12.0 Datum D B1	12.0858	12.0000	0.0150	-0.0150	0.0858	0.0708
		True Position 12.0 Datum D B1	0.0724	0.0000	0.0400	0.0000	0.0724	0.0324
		True Position 12.0 Datum D B1.Y	30.0243	30.0000	0.0200	-0.0200	0.0243	0.0043
		True Position 12.0 Datum D B1.Z	-32.9732	-33.0000	0.0200	-0.0200	0.0288	0.0088
		True Position 12.0 Datum D B1.(M)	0.0181	0.0000	0.0100	0.0000	0.0181	0.0081
		Diameter 12.0 1of4 C2	12.0902	12.0000	0.3000	0.0000	0.0902	



Modified PiWeb Report		Name	Cleaner Header	Measured...	Nominal...	+Tol	-Tol	Deviation	+/-
		01 Flatness of Datum A D3		0.0094	0.0000	0.0500	0.0000	0.0094	
		02 Perpendicularity Datum C to A and B		0.0239	0.0000	0.2000	0.0000	0.0239	
		03 Diameter 12.0 Datum D B1		12.0858	12.0000	0.0150	-0.0150	0.0858	0.0708
		True Position 12.0 Datum D B1		0.0724	0.0000	0.0400	0.0000	0.0724	0.0324
		Y Value	Simplified	30.0243	30.0000			0.0243	
		Z Value	Support Data	-32.9732	-33.0000			0.0288	
		(M) Line Removed							
		Diameter 12.0 1of4 C2		12.0902	12.0000	0.3000	0.0000	0.0902	

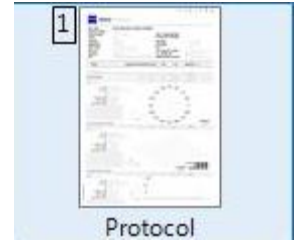
For best results create the new report from a program with some actual or simulated run data, so you can see the changes as you make them!

With a program open start by selecting Measurement tab then Multiple Printout in the **Printout Features** section of the new window that opens select **New/PiWeb Reporting** to add an additional report. With the report just added highlighted, select Opens PiWeb Designer select **Generic templates** from the window. **This is an important step; creating the report in the Generic Templates section allows the report to be used for any program.** Name your template **Standard Protocol Modified Additional Printout 18** (18 being the version of Calypso it is created from, for this guide we are using Calypso 2018) and select and PiWeb Designer will open.



MODIFYING PROTOCOL HEADER (optional):

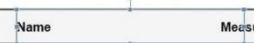
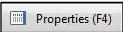
Once in PiWeb Designer select the  **Pages** tab on the left side. Choose the Protocol page that looks like the image on the right. This will display the Protocol page on the right side of the screen. Start by using the Magnification Slider at the top right  and magnify the page somewhere between 150 and 200%.




This is the default **Protocol Header**:

Name	Measured value	Nominal value	+Tol	-Tol	Deviation	+/-
Substring FeatureComment	Measured value (1. characteristic of data binding)	Nominal value (1. characteristic of data binding)	+Tol (1. characteristic of data binding)	-Tol (1. characteristic of data binding)	Deviation (1. characteristic of data binding)	+/- (1. characteristic of data binding)
Row template (Default)	FeatureElementName	FormDev	Sigma	MinDev	MaxDev	VCMM_Uncert
Substring FeatureComment	Measured value (1. characteristic of data binding)	Nominal value (1. characteristic of data binding)	+Tol (1. characteristic of data binding)	-Tol (1. characteristic of data binding)	Deviation (1. characteristic of data binding)	+/- (1. characteristic of data binding)

The goal of modifying the Protocol Header is to unclutter and make it easier to read.

1 - Select the **Name**  area of the header then select the  **Properties (F4)** tab on the left or press F4 on the keyboard. In the text field place the cursor before the string (\$) and press tab, this will move the name farther to the right.

BEFORE	Text \$ {Localization.AttributeKey.Description(2002)}
AFTER	Text \$ {Localization.AttributeKey.Description(2002)}



To view changes at any time select  **Page Preview** at the top of the page or press F11 on the keyboard.

Notes:

The PiWeb report must be closed before editing can continue.

Do not forget to save as you go along, when you have something you are happy with save, so if you mess the next step up you can close without saving and only lose the messed up part!



2 - Select the **Measured value**  area then select the  **Properties (F4)** tab on the left or press F4 on the keyboard. The goal is to make it not so cluttered with the Nominal value.

Under General select the **CENTER** Alignment  and check **Word wrap** . Go to the Layout section and change **Position (X to 2.75, Y to 0.045)** and **Size (W to 0.8 and H 0.25)**. The goal here is to only see Measured... and center it over the report values, the X value may differ and have to be modified.

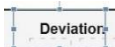


Layout				
Position	X	2.75 inch	Y	0.045 inch
Size	W	0.8 inch	H	0.25 inch



IMPORTANT: When typing in numbers there has to be a number in the ones column **0.045 / 0.8 / 0.25**

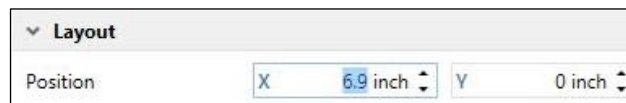
3 - Select the **Nominal Value**  area then select the  **Properties (F4)** tab on the left or press F4 on the keyboard. The goal is to make it not so cluttered with the Measured Value.

Under General select the **CENTER** Alignment  and check **Word wrap** . Go to the Layout section and change **Position (X to 3.48, Y to 0.045)** and **Size (W to 0.7 and H 0.25)**. The goal here is to only see Nominal... and center it over the report values, the X value may differ and have to be modified.

Layout				
Position	X	3.48 inch	Y	0.045 inch
Size	W	0.7 inch	H	0.25 inch




4 - Select the Deviation  area then select the  tab on the left or press F4 on the keyboard. The goal is to set Deviation over the values on the report. Under General select the **LEFT** Alignment . If Deviation is not over the report values adjust Position X in the Layout section.

5 - Select the +/-  area then select the  tab on the left or press F4 on the keyboard. In the Layout section change **Position (X to 6.9)**. The goal here is to move the +/- centered over the exceeded tolerance values.



MODIFYING REPORT DATA:



This is the **Row Template (Default)**:

Name	Measured value	Nominal value	+Tol	-Tol	Deviation	+/-
Substring						
 Name Measured value (1. characteristic of data binding) Nominal value (1. characteristic of data binding) Exceeded (1. characteristic of data binding) Exceeded (1. characteristic of data binding)						
 Row template (Default) FeatureElementName FormDev Sigma MinDev MaxDev VCMM_Uncert						
 Name Measured value (1. characteristic of data binding) Nominal value (1. characteristic of data binding) Exceeded (1. characteristic of data binding) Exceeded (1. characteristic of data binding)						


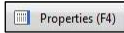

Goals of modifying the Row Template:

- Remove tolerances from Additional Printout characteristics
- Simplify the Additional Printout names to make the report easier to read
- Hide Icons on the left side of the report for Additional Printout characteristics
- Hide Graphics on the right side of report for Additional Printout characteristics
- Hide Exceeded Tolerance values on the right side of report for Additional Printout characteristics
- Remove (M) Lines from the report

When modifying the Row Template the order of editing is important to the ease of editing, please proceed in the order suggest in this guide (the edit creates boxes that cover sections of the report if the boxes are created first editing becomes much more difficult because you have to move those boxes).

1 - Select the Deviation  area (the easiest way is to click on the round traffic light icon) then select the  tab on the left or press F4 on the keyboard. In the Appearance section change the right **Padding** to 0.25 this will move the traffic light icon away from the deviation values.





2- Select the Tolerance bar  area (it is just to the right of the round traffic light icon) then select the  tab on the left or press F4 on the keyboard. This graphic  should appear at the top left of the properties window, if not, the wrong area has been selected. In the Layout section change **Position (X to 6.35)** this moves the bar away from the round traffic light icon moved in step 1.



Easiest way to replace strings (\$): Copy the string (\$) using **CTRL C** click into the Text Box, then press **CTRL A**, then **DELETE**, then **CRTL V**.
Notepad version of the strings (\$) will be provided
NOTE: DO NOT add lines above string (\$), it hides the information.

```
Text
NO EXTRA
LINES
ABOVE ($)
@if Equal(String.Right
(Qdb.Characteristic
(2002),2),".X")then"
X Value"else if
```

3 - Select the Name  area then select the  tab on the left or press F4 on the keyboard. In the text section replace the string (\$) with the following String (\$):

```
Text
${ Name }
```



```

$if Equal(String.Right(Qdb.Characteristic(2002),2),".X")then" X Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Y")then" Y Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Z")then" Z Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".x")then" X Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".y")then" Y Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".z")then" Z Value"else if
Equal(String.Right(Qdb.Characteristic(2002),2),".R")then" Radius"else if
Equal(String.Right(Qdb.Characteristic (2002),6),".Angle")then" Angle"else Qdb.Characteristic(2002)}
```

What this string (\$) does is replace any .X, .Y, .Z, .x, .y, .z, .R, and .Angle with a tab and the simplified name.

Example: .X becomes "tab" X Value

The upper and lower case values are used so the Additional Printout characteristics for True Position and Profile get the simplified name.

4 - Select the Upper allowance  area then select the  tab on the left or press F4 on the keyboard. In the text section replace the string with the following String (\$):


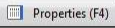
```
Text
${ Upper allowance }
```

```

$if Equal(String.Right(Qdb.Characteristic(2002),2),".X")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Y")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Z")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".R")then""else if
Equal(String.Right(Qdb.Characteristic(2002),6),".Angle")then""else Qdb.Characteristic(2113)}
```

What this string (\$) does is replaces .X, .Y, .Z, .R, and .Angle the upper tolerances that PiWeb adds with nothing ("").

As of PiWeb version 6.6.8.0 Profile does not give tolerances that is why the code does not need the lower case .x, .y, and .z.

5 - Select the Lower Allowance  area then select the  tab on the left or press F4 on the keyboard. In the text section replace the string with the following String (\$):

```
Text
${ Lower allowance }
```

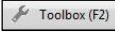

```


$if Equal(String.Right(Qdb.Characteristic(2002),2),".X")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Y")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".Z")then""else if
Equal(String.Right(Qdb.Characteristic(2002),2),".R")then""else if
Equal(String.Right(Qdb.Characteristic(2002),6),".Angle")then""else Qdb.Characteristic(2112)}
```

What this string (\$) does is replaces .X, .Y, .Z, .R, and .Angle the lower tolerances that PiWeb adds with nothing ("").

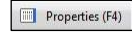
As of PiWeb version 6.6.8.0 Profile does not give tolerances that is why the code does not need the lower case .x, .y, and .z.

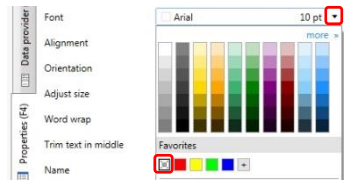
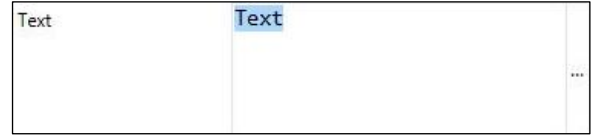
6 - The next step is to create a Text Box to cover the icons on the left side of the report when there are Addition Printout characteristics.



First select the Toolbox tab  on the left or press F2 on the keyboard. Then highlight Text  and drag it into

the report in the Row Template (Default) Area .


IMPORTANT: The Text Box **MUST** be dragged into the Row Template (Default) area to work!

With the Text Box highlighted select the  tab on the left or press F4 on the keyboard. In the text field enter the following string (\$):
`#{Qdb.Characteristic(2002)}`

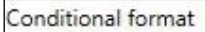



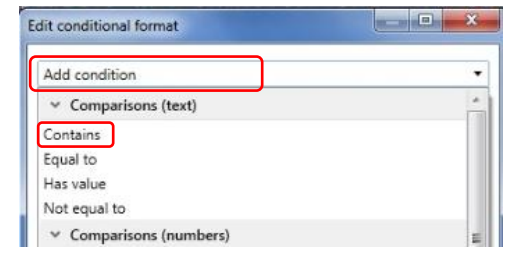
Next change the Font to transparent by selecting the Font drop down  and selecting transparent .

Go to the Layout section and change **Position** (X to 0.02, Y to 0.04) and **Size** (W to 0.25 and H 0.25).


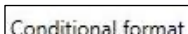
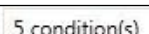
 The goal here is to put the text box over the dynamic image so adjust the X Y positions as needed.

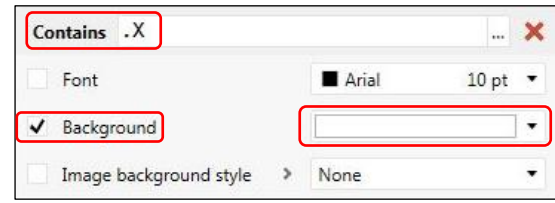


In the Appearance Section select Conditional Format  using the 3 dots  and then select Add Condition and choose contains **repeat this step 5 times**.



In the Contains field we will be adding .X, .Y, .Z, .R, and .Angle one at a time as the condition. For each condition check the Background box and change the

background color to white . When completed the Conditional Format should have 5 condition(s)  5 condition(s) .

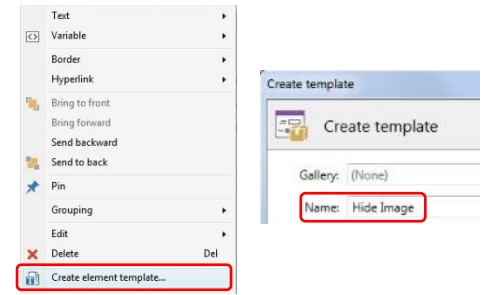


What this does is when a characteristics has .X, .Y, .Z, .R, or .Angle it will fill the Text Box white and cover the image.

NOTES:
 Since the conditions are looking for .X, .Y, .Z, .R, or .Angle anywhere in the characteristic name be careful not to have any characteristic named with these conditions or the graphics will get hidden.
 This does not apply to the strings (\$) because the strings (\$) are looking for the last 2 or 6 (for .Angle) right values of the characteristic name;
 String.**Right**(Qdb.Characteristic(2002),**2**), ".R"
 String.**Right**(Qdb.Characteristic(2002),**6**), ".Angle"

7 - The next step is to create a text box to cover the stop light, the bar graph, and the exceeded tolerance values on the right side of the report when there are Addition Printout characteristics.

Now that we have a Text Box created that has everything we need, we are going to make it a template so we can use it again and not have to recreate all the steps. To do this chose the Text Box just created and then right click and choose **Create Element Template**, in the new window that opens name the template **Hide Image** and select **OK**.



Next select the Toolbox tab **Toolbox (F2)** on the left or press F2 on the keyboard. Scroll down until you see the Templates section, the new template **Hide Image**, should now be in the section. Highlight **Hide Image** and drag the template into the

Row Template (Default) Area then select the **Properties (F4)** tab on the left or press F4 on the keyboard. Go to the Layout section and change **Position (X to 6.08, Y to 0.01)** and **Size (W to 1.4 and H 0.2)**.



The goal here is to put the text box over the stop light and bar graph images along with the exceeded tolerance (+/-) values so adjust the **Positions (X Y)** as needed.

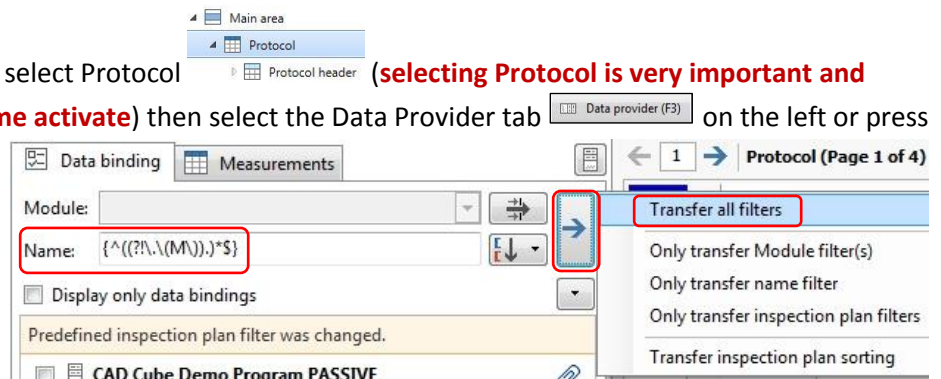


8 - Final step is to remove the (M) Lines from the Report.

Select the Page Structure tab **Page structure** then select Protocol **Protocol** (**selecting Protocol is very important and must be selected for the Blue Arrow to become activate**) then select the Data Provider tab **Data provider (F3)** on the left or press F3 on the Keyboard. In the name section add the following string (\$):

`{^(?!\\.\\(M\\)).*$}`

Then select the **Blue Arrow** **Assign inspection plan filter or sorting to all selected elements** and **Transfer All Filters**, the reports now have the (M) lines removed.



Note: If the Blue Arrow is not active re-select Protocol in the Page Structure tab again.

Final Notes:

If using template programs you can add this report to the template program and this will be the default report or an additional report moving forward.

For older programs select this report from the Generic Templates and save the program.

For users with multiple seats of Calypso, the .ptx file does not have to be created on every seat it can be copied and placed in the following path: **C:\Users\Public\Documents\Zeiss\CALYPSO\protocol\PIWebReportingTemplates**.

If this modified report is the only report you wish to use go back into Multiple Printout and delete the PiWeb Reporting_1 StandardProtocol.ptx by highlighting it and selecting **Cut Printout Element Selected**.