

Zeiss Industrial Quality Solutions

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https://carl-zeiss-industrial-metrology-llc.helpjuice.com/piweb /piweb\_0009-characteristic-attributes

## **PiWeb: How to Add Characteristic Attributes**

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This document contains the steps for adding characteristic attributes to both a Calypso measurement plan and PiWeb. A characteristic attribute is any value that changes or could change from characteristic to characteristic but will remain the same for each measurement. Examples of this type of attribute are: nominal, tolerances, print locations, etc.

#### How to Add Characteristic Attributes to CALYPSO and PiWeb

This tutorial will walk through the steps to add characteristic attributes to both Calypso and PiWeb. A characteristic attribute is any value that changes or could change from characteristic to characteristic but remains the same for each measurement, such as the nominal, tolerances, print locations, etc.

#### Adding Characteristic Attributes



- Open the userattributes.ini file.
  - For Calypso 5.4 or before: C:\Program Files (x86)\Zeiss\CALYPSO X.X\opt \om\config\userattributes.ini.
    - Where Calypso X.X is the Calypso version.
  - For Calypso 5.6 and after: C:\Users\Public\Documents\Zeiss\CALYPSO X.X\data \config\userattributes.ini.
    - Where Calypso X.X is the Calypso version.

- If the userattributes.ini does not exist, create a text document in the above location and name it userattributes, changing the extension from \*.txt to \*.ini.
- Fill out the userattributes.ini file with the desired characteristic attributes.
  - $\circ$  Create the userfieldnames, remembering that they must begin with "u\_".
    - Cannot contain spaces.
  - List all the characteristic attributes.

userattributes.ini - Notepad	-			
File Edit Format View Help				
REM\opt\om\config\us	serattributes	.ini		
REM By convention the use [Fieldnames]	erfieldnames	begin w	vith	"u_"
u_operation u_toolwear u_Meaurement_Device u_Print_Location u_Characteristic_Comment				

- Define the userattributes
  - ∘ name=
    - Where you name the attribute. This value will be how you see it in Calypso. This field may contain spaces.
  - selectiveList=
    - Either true or false.
      - True means that the attribute value will be selected from a list.
      - False means that the attribute value will be typed into a blank field.
  - selectiveListValues=
    - Where you name the list of values that you can select from.
    - Must be in the format "u\_nameofattribute\_valueList".
  - editable=
    - either true or false.
      - True means the values can be edited in Calypso.
      - False means you must select a predefined value from the list.



- Define the selectiveListValuesif needed.
  - Type the name you gave the selectiveListValues above in square brackets.
  - List out the values.

userattributes.ini - Notepad	
File Edit Format View Help editable=false	
[u_operation_valueList] 010=0P10 020=0P20 030=0P30 040=0P40 050=0P50 060=0P60 070=0P70 080=0P80 090=0P90	

- Continue on for all desired attributes.
- Save the file and close it.
- Open Calypso and a Measurement Plan.
- Go to Resources  $\rightarrow$  Characteristics Settings Editor...



• From the drop down, select Characteristic attribute and the desired attribute from the list (this example is Operation).



• Highlight the desired characteristics.

Operation	*	** = from higher setting	(Measurem	ent Plan/Group)
Operation K2015 Tool Wear Measurement Device Print Location Characteristic Comment	4	Accept for: Measurement Plan	ystem n ⊙ selecte	d features
			Set To	** Default
Identifier	2	Type	Set To Value	** Default
Identifier Diameter1	×	Type	Set To Value	** Default
Identifier Diameter1 Diameter2	9	Type D D	Set To Value	efined
Identifier Diameter1 Diameter2 Angularity1	2	D D Ang	Set To Value ** Und ** Und	** Default efined efined efined

• Select the values for the characteristic attribute from the Set To drop down.

Operation Operation	II = Not Available On	ng (Measurement System	Pter/Group]	Operation	4	** = from higher settin II = Not Available On 1	ng (Measuren System	ent Plan
K2015 Tool Wear Measurement Device Print Location Characteristic Comment	Accept for: Measurement P	lan 💿 selected f	eahares	K2015 Tool Wear Measurement Device Print Location Characteristic Comment		Accept for:	an 💿 selecti	ed leature
deutifier	Tune	Set To Value	** Default	Manifest		Turne	Set To	0P18
Diameter1 Diameter2	0	** Under	0910	Diameter1 Diameter2		0 0	0P18 0P18	
Angularity1 Perpendicularity1	Ang Perp	** Undef	0P30 0P30	Angularity1 Perpendicularity1		Ang Perp	** Und	lefined lefined
			0F50 0F50 0F70 0F90 0F90					

• When finished assigning values, click OK.

#### PiWeb Planner

- Open PiWeb Planner and select your database.
- Click Configuration.



- In the top row, type in the Keyvalue that corresponds to the desired characteristic attribute.
  - If there is no known Key value, select one between 2800 and 2899. These are user defined fields.
- Add the attribute name under Description.

Configuration PIW	eb Server						-	<b>]</b> x
Attributes	Catalogs	s						
					Created	Updated	Unchanged	
Key	- Description	Type	- Data Type	Length		Catalog	Query E	ficent
/ 2311	Operation	Characteristic	Character string	255				2

- Make sure the Type is Characteristic.
- Select the appropriate Data Type.
  - $\circ~$  For the most part, either Characteristic string or Catalog are used.

- See the next section for creating a catalog.
- Hit Enter, and the characteristic attribute will be located under the Characteristic section and will be in a blue font.
- The Commit and Discard buttons should activate. Click Commit to save the changes to the database or Discard to discard any changes.

Commit	Ø Discard	Close



- Run your Calypso Program in simulation.
- When the Calypso Interface counts down, click Cancel.

File		
r		
	Ubload will start automatically in 2 seconds	
	Pass Carrel to add the settions	
	Free Carce & earlier Heinge	
	Cancel	

• In the Assignment tab, scroll through the InspectionPlan section until you see your created attribute (u\_operation).

onection Assignment Name pattern Options				
Attribute assignment				
AttributeType -				
Target Attribute				
Decimal places				
Nominal Value				
Lower Allowance				
Lower Limit				
Upper Allowance				
Upper Limit				
Lower Warning Limit				
Upper Warning Limit				
Position X				
Position Y				
Position Z				
13				

• In the Target Attribute column, scroll through the drop down until you locate the characteristic attribute you created in PiWeb Planner and select it.

AttributeType -	
Source Attribute	Target Attribute
Lower warning limit	Lower Warning Limit
Upper warning timit	Upper Warning Limit
X position	Position X
Y position	Position Y
Z position	Position Z
Type	
ID symbol	
Teature	
featureRiomPock	
NetwelliomPosY	
teatureNomPoi2	
u pperation.	Ø
u_Meaurement_Device	
u,Print,Location	Characteristic abbreviation
Ovaracteristic number	Direction
Reference A	Control frem
Direction	Distribution .
Warning Smith	Formula
CAD X direction	Set value
CAD Y direction	Lower Limit Type +
CAD Z direction	Upper Limit Type +
fipilog	Unit
Measurand of form plot	Algonett
formula symbol	Location +
Owracteristic prolog	Orientation .
	Operation
	Module
Address of the second sec	Contra and and

Calypso import - AS9012		Street of some
file		
Connection Assignment Name patter	m Options	
Attribute assignment		
AttributeType +		
Source Attribute	Target Attribute	
featureNomPostf		10
TestureNomPos2		
suppresson	Operation	
u_Meaurement_Device		
u,Print,Location		
Characteristic number	Characteristic number	
Reference A		
Direction		
Warning limit		
CAD X direction	Direction X (b)	-

- Save the file by going to File  $\rightarrow$  Save as...
  - Save the file in one of the following locations. If the folders do not exist, create them.
    - %appdata%\Zeiss\PiWeb
    - %allusersprofile%\Zeiss\PiWeb



- Overwrite the existing file.
- Click Upload.
- Go into PiWeb Planner and make sure the data was written to the database.

PiWeb Server • PiWebDB Edition, Version 5.6	.4.0 (WSDL: 2.9	9) - PiWeb Planner	Access Read Transmission			
File Tools Help						
Connection F PiWeb Server		- 🗟 🕫 Configuration 🔮 Catal	ogs 🐻 Jobs 🗳 User adminis	tration 🚯 Infor	mation	
Inspection plan 🛅 Measurements						
Moduler		Drag a column header here to g	roup by that column.			
Module.		Path	Operat	Nominal Val	Lower Limit	Low
Name:	<b>i</b> +	/AS9012/Diameter1	010	30	29.9	
PiWeb Server	Ø	/AS9012/Diameter2	010	12	11.9	
▶ ALL		/AS9012/Angularity1		0	0	
4 🧰 AS9012		/AS9012/Perpendicularity1		0	0	
Angularity1						
Diameter1						
Diameter2						
Perpendicularity1						
A Third St.	0					

#### Creating a Catalog in PiWeb Planner

Some attributes associate a word or description with a numeric value. This numeric value is usually what is inputted into PiWeb. From there, we can associate the proper word(s) to the value by use of a catalog.



- Open PiWeb Planner and select your database.
- Click Configuration.

File Tools Help	
Connection 🗏 PiWeb Server	<ul> <li>I Configuration Catalogs I</li> </ul>
Inspection plan Measurements	Configuration
Module	Drag a column header here to group b
	Path

- Create two different attributes.
  - Add a Keyvalue.
    - If there is no known Key value, select one between 2800 and 2899. These are user defined fields.
  - $\circ\,$  Add the attribute name under Description.
    - This example will use Operation Description and Operation Number.
  - Select the Type: Catalog from the drop down.

Attributes	Catalogs	sgs 🔚 Templates						
Key		Description	Туре		Data Type	Length		

- Edit the length if desired.
- Hit Enter and create the second attribute.
- The two attributes will be located under the Catalog section.

Catalog					
2009	Direction	Catalog	Character string	10	
2090	Orientation	Catalog	Character string	10	
2091	Location	Catalog	Character string	10	
2135	Lower Class Limit	Catalog	Floating point number		
2136	.Upper Class Limit	Catalog	Floating point number	1	100
2312	Operation Description	Catalog	Character string	255	
2313	Operation Number	Catalog	Character string	255	
2520	Reference system	Catalog	Character string	20	

- Create a catalog.
  - $\circ~$  Click on the Catalogs tab at the top of the Configuration window.
  - $\circ~$  In the top box, type the name of your catalog to create a new catalog.

Configu	ration Pi	Web Server	Renard I.
A	ttributes	🗄 Catalogs	Templates
	Catalog	í.	
1	Operatio	on Catalog	

- Hit Enter and the catalog will now display in the list.
- Expand the catalog.
- $\circ~$  Click under  $\mbox{\sc Attributes}$  and select one of your created attributes.
- Click off the line and repeat the previous step for the second attribute.

0	peration Catalog	
	Attributes	
÷		
	2312 - Operation Description	
	2313 - Operation Number	

- Click Commit and return to the Attributes tab.
- Create a third attribute (Operation).
  - $\circ~$  Enter the Key value and Description.
  - Select the Typeof attribute (part, characteristic, measured value, or measurement).
    - Do not select Catalog as the Type.
  - The Data Type will be Catalog.
  - Under Catalog at the far right of the line, select the catalog you wish to use with this attribute.

	Attributes 🔠	Catalogs 🔚 Templates						
L						Created	Updated	Unchan
	Key	<ul> <li>Description</li> </ul>	Type	- Data Type	Length	Catal	90	Q
$J_{i}$	2311	Operation	Characteristic	Catalog		Oper	ation Catalog	

- Hit Enter and the attribute will be under the appropriate Type.
- The Commit and Discard buttons should activate. Click Commit to save the changes to the database or Discard to discard any changes.

Commit ODiscard Close
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### Calypso Interface

- The corresponding catalog value can now be mapped using the Calypso Interface located at Start → All Programs → Zeiss → PiWeb → Calypso Interface.
  - Open the saved UploadOptions.upllocated in either.
    - %appdata%/Zeiss/PiWeb.
    - %allusersprofile%/Zeiss/PiWeb.
- If this file does not exist, create one.
- In the Assignment tab, scroll through the InspectionPlan section until you see the desired attribute (u\_operation).

le	
nnection Assignment Name pattern Options	
Attribute assignment	
AttributeType -	
Source Attribute	Target Attribute
3 InspectionPlan	
Output class	
Decimal places	Decimal places
Nominal value	Nominal Value
Lower tolerance	Lower Allowance
Type of lower limit	
Lower specification limit	Lower Limit
Upper tolerance	Upper Allowance
Type of upper limit	
Upper specification limit	Upper Limit
Lower warning limit	Lower Warning Limit
Upper warning limit	Upper Warning Limi
X position	Position X
Y position	Position Y
Z position	Position Z
Type	
ID symbol	
Feature	
featureNomPosX	
featureNomPosY	
featureNomPos2	
	2

- In the Target Attributecolumn, scroll through the drop down until you locate the characteristic attribute you created in PiWeb Planner.
  - In the drop down for that attribute, select the desired catalog attribute. This
    is usually the option referencing the number in the catalog.

Television Concerning and Concerning				featureNomPosY		
Loperation	· ·	_		featureNomPosZ		
u_Meaurement_Device				u_operation	 Operation Number	
Mode Keep configuration *	Characteristic abbreviation Direction			u_Meaurement_Device		
Catalops	Control Item	•		Mode: Keep configuration		
Create missing catalog entries	Distribution			-		
	Set value					
	Lower Limit Type	:	Upload			
	Unit	-				
	Alignment					
	Location	•				
	Orientation					
	Operation		Operation Description			
100	Module	0	operation Number			

- $\,\circ\,$  Save the file by going to File  $\rightarrow$  Save as...
  - Save the file in one of the following locations;
    - %appdata%\Zeiss\PiWeb.
    - %allusersprofile%\Zeiss\PiWeb.

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File Edit View Tools Help	

• Overwrite the existing file.