

 Precision Swiss Products, Inc.	Document # WI-3.2-002	Revision 1
Document Title Setup CMM Program Settings	Effective Date 03/15/23	
	Document Type Work Instruction	

1. Purpose:

The following process will help make sure all CMM Program Settings are set correctly, and the data is routed to the correct dump folders before saving the program to the designated CMM Program Drive on the Network.

2. Scope:

The scope of this process shall apply to all CMM Programs written and run at Precision Swiss Products, Inc. This will ensure a standard PSP PiWeb Report format for text file imports into the High QA Import folder, as well PDF files saved in CMM specific “Results” folders on the designated CMM Program Drive.

3. Terms, Acronyms and Definitions:

- a. **CALYPSO**: CAD-based CMM software that allows you to create dimensional measurement programs from a CAD model based on a customer’s inspection requirements.
- b. **CMM**: Coordinate Measuring Machine

4. References:

- a. WI-4.6-003 (Saving CMM Programs)

5. Tools and Equipment:

- a. Latest version of CALYPSO: CAD-based CMM software.
- b. A calibrated Coordinate Measuring Machine (CMM) with a valid asset number.

6. Responsibilities and Authority:

This process will be limited to trained CMM Programmers and authorized Quality Personnel.

7. Inputs:

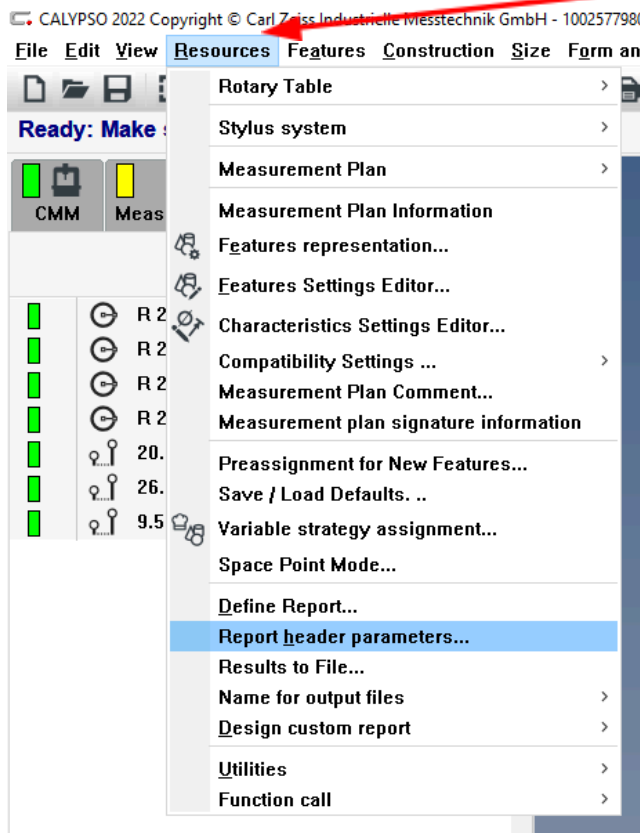
- a. A properly programmed operation/machine specific CMM Program.
- b. **StandardProtocol_PSP.ptx** PiWeb Report Template file.
- c. The **Text string** provided by the High QA rep which has the proper formatting for
- d. dumping/extracting texts files into the “High QA Import” folder on the network drive and in Inspection Manager.
- e. The **PDF string** provided by the High QA rep which has the proper formatting for dumping PDF files into the CMM specific dump folder on the network drive.
- f. Current, Customer Part Information.
- g. **CALYPSO**: CAD-based CMM software.

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- h. A calibrated CMM with a valid asset number.
- i. A designated CMM Program Drive (i.e. NC Programs (Y:)).

8. Instructions:

1. Start by setting up all your resource settings in the **Resource** dropdown menu.



a. Report Header Parameters:

Name	Value
Drawing No.	10025779801
Customer	Edwards Lifesciences
Part_Version	E
PartName	Cartridge Back
Part Number	10025779801

☒ Force Input at Start

OK Cancel

- Go to **Resources>Report header parameters...**
- Fill in the proper part information and make sure to check **ON** “Force Input at Start”.

b. Results to File:

The screenshot shows the "Result To File" dialog box. The "On" column has several items selected: "Table File", "PDF", "Measuring points", "Stylus data", and "Export Points". The "Off" column has "Merge File", "Q-DAS", "PiWeb Export", "Curve Distance File", "Automatic signing of reports", and "CAL Export" selected. The "Select at CNC Start" section includes "Curve Points", "Masked curve points", "Initialization", "Default output (no separation)", "Configuration", "Limit", and "Files". A red circle highlights the "Limit" field, which contains "99999999", with a red arrow pointing to it from the text "Hold down #9".

	On	Off	Select at CNC Start
Table File	☒	☐	☐ Curve Points ☐ Masked curve points
Merge File	☐	☒	Initialization
DMIS	☐	☒	☐
Q-DAS	☐	☒	☐ Default output (no separation) ▼
PiWeb Export	☐	☒	☐ Configuration
PiWeb Reporting	☐	☒	☐ Configuration
PDF	☒	☐	☐ Limit 1 Files Configuration
Curve Distance File	☐	☒	
Measuring points	☒	☐	99999999 Limit Hold down #9
Stylus data	☐	☒	
Export Points	☒	☐	Configuration
QIF	☐	☒	☐
IPP Export	☐	☒	☐
CAL Export	☐	☒	☐
☐ Automatic signing of reports			Configuration

Curve Points

	☒ Off	ASCII	VDA	DXF	AccTecPro TIMS
Act/Nom Points (Spline)	Type 1 (Nominal)	☐			
	Type 2 (Actual)	☐			☐
	Type 3 (Nominal + Nor.vector)	☐			
	Type 4 (Actual + Nor. vector)	☐		☐	
	Type 5 (Nominal + Nor. vector + Deviation)	☐			
	Type7 (Actual value in polar coordinates)	☐			
	Typ7a (nominal angle + deviation)	☐			
	Typ7b (nominal angle + negative deviation)	☐			
Meas. Points (Linear)	Type8 (value corrected linearly)	☐	☐	☐	☐
	Type9 (value not corrected)	☐	☐	☐	☐

OK Cancel Help

- Go to Resources>Results to File...
- Turn **ON: Table File, PDF, Measuring Points, and Export Points.**
- For Measuring Points, click in the **Limit** box and highlight the number inside to edit. Then hold down the number nine (9) on your keyboard until the character limit of the box is reached

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c. Name for Output Files>...for *all* Measurement Plans...:

Output File

Characteristics Table File

☒ Name of output file variable

☒ Applies for all users

Directory Report header fields File Ending

Name definition of output file in PCM Syntax (with or without path)

"V:\High QA Import\PN('+getRecordHead('u_PartNumber')+')-REV('+getRecordHead('u_Part_Version')+')-JOB('+getRecordHead('u_Job_Nu

Example: "compactprot"+" "+getRecordHead('partnbinc')+").txt"

compactprot_147.txt

Current Name

V:\High QA Import\PN(10025779801)-REV(E)-JOB(21676-06)-SN(25)-CMM(3011)-OP(3682)-MFG[NC M OP1 IP].txt

All name definitions deviating from default

Name	Path
Characteristics Table File	V:\High QA Import\PN(10025779801)-REV(E)-JOB(21676-06)-SN(25)-CMM(3011)-OP(3682)-MFG[NC M OP1 IP].txt
PDF file PiWeb reporting	V:\Results CMM 3011\10025779801_E_NC M OP2 FAI_21676-06

OK Cancel Help

- Click on the **Output File** dropdown menu and select **Characteristics Table File**.
- Check ON “Name of output file variable” and “Applies for all users” boxes.
- In the “Name definition of output file in PCM Syntax” box, copy and paste the text string provided by the High QA rep which has the proper formatting for dumping/extracting texts files into the “High QA Import” folder on the network drive and in Inspection Manager.

Example: "V:\High QA

Import\PN("+getRecordHead("u_PartNumber")+")-REV("+getRecordHead("u_Part_Version")+")-JOB("+getRecordHead("u_Job_Number")+")-SN("+getRecordHead("partnbinc")+")-CMM(3011)-OP("+getRecordHead("u_Operator")+")-MFG("+getRecordHead("operation")+").txt"

Change to correct CMM Asset #

- Click on the **Output File** dropdown menu and select **PDF file PiWeb reporting**.
- In the “Name definition of output file in PCM Syntax” box, copy and paste the PDF string provided by the High QA rep which has the proper formatting for dumping PDF files into the CMM specific dump folder on the network drive.

Example: "V:\Results CMM 3011\

" +getRecordHead("planid")+")_ "+getRecordHead("u_Job_Number")+")_ "+getR

```
recordHead("partnbinc")+"_"+getRecordHead("u_Asset")+"_"+getRecordHead("u_Operator")+"_"+getRecordHead("u_Inspector")+ ".pdf"
```

Note 2:

Make sure that “**High QA Import**” is at the beginning of the **text file string** and the correct CMM Asset Number (i.e. **3011** is the CMM specific asset number in the example highlighted above) is added and “.txt” is at the end of the string in the locations highlighted above.

Make sure that “**Results CMM XXXX**” is at the beginning of the **PDF file string** with the correct CMM Asset Number (i.e. **3011** is the CMM specific asset number in the example highlighted above) and “.pdf” is at the end of the string in the locations highlighted above.

d. Name for Output Files>...for this Measurement Plan...:

Name definitions for output files for this Measurement Plan

Output File: **Characteristics Table File**

☒ Name of output file variable
☒ Name from setting for all Measurement Plans

Directory | Report header fields | File Ending

Name definition of output file in PCM Syntax (with or without path)

V:\High QA Import\PN["+getRecordHead("u_PartNumber")+"]-REV["+getRecordHead("u_Part_Version")+"]-JOB["+getRecordHead("u_Job_Nu

Example: "compactprot"+"_"+getRecordHead("partnbinc")+ ".txt"

compactprot_147.txt

Current Name

V:\High QA Import\PN[10025779801]-REV(E)-JOB[21676-06]-SN[25]-CMM[3011]-OP[3682]-MFG[NC M OP1 IP].txt

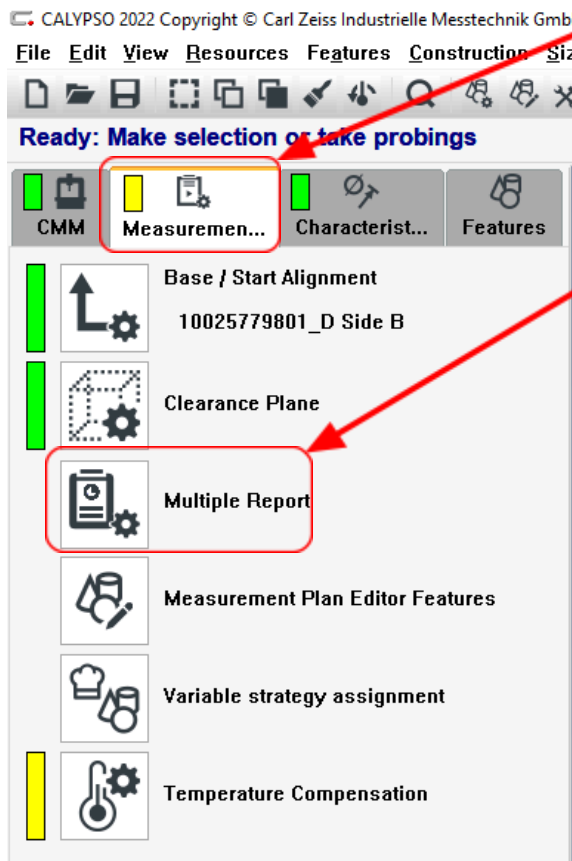
All name definitions deviating from default

Characteristics Table File	V:\High QA Import\PN(10025779801)-REV(E)-JOB(21676-06)-^
PDF file PiWeb reporting	V:\Results CMM 3011\10025779801_E_NC M OP2 FAI_21676-06

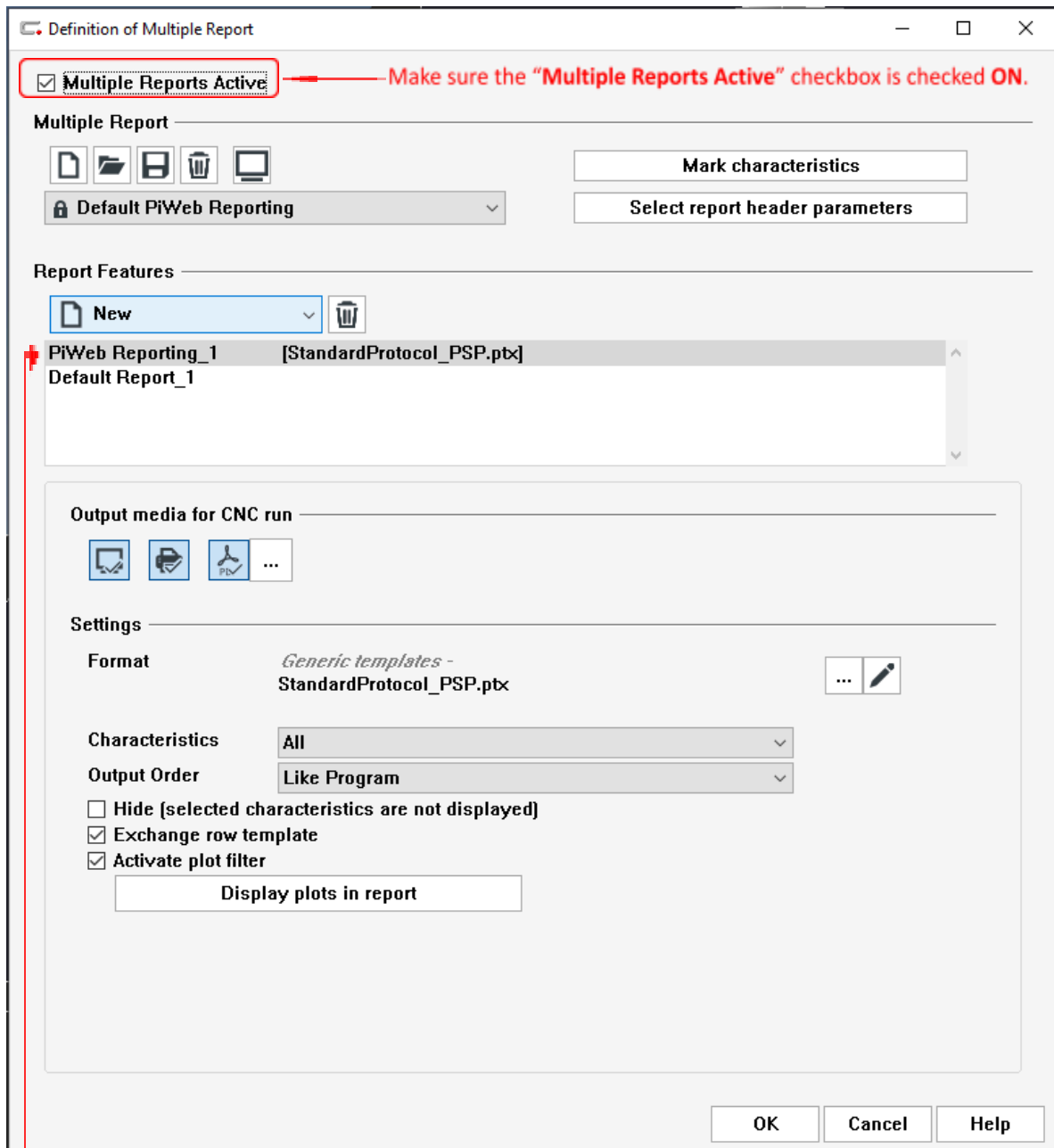
OK Cancel Help

- Check ON “Name of output file variable” and “Name from setting for all Measurement Plans” boxes. Checking on these boxes should automatically populate the “All name definitions deviating from default” portion for the text and PDF setting you already did in the “...for all Measurement Plans...” settings in the previous step. If it doesn’t, try clicking on both of them so that they are highlighted Blue to activate them.
- If all else fails, refer to your supervisor for assistance.

2. Once your Resource settings are complete, click on the **Measurement tab** and click the **Multiple Report Button**.



This will open the Definition of Multiple Report menu.



- Under the **Report Features** section, make sure there's a **PiWeb Reporting_1** and a **Default Report_1** available. If they're not available, click on the "New" dropdown menu and add them.
- Make sure the "Multiple Reports Active" checkbox is checked **ON**.
- Click on **PiWeb Reporting_1** so that it's highlighted Blue, then click the  button and double check that your text and PDF strings are correct.
- Check **ON** the Screen  and PDF-File  buttons.

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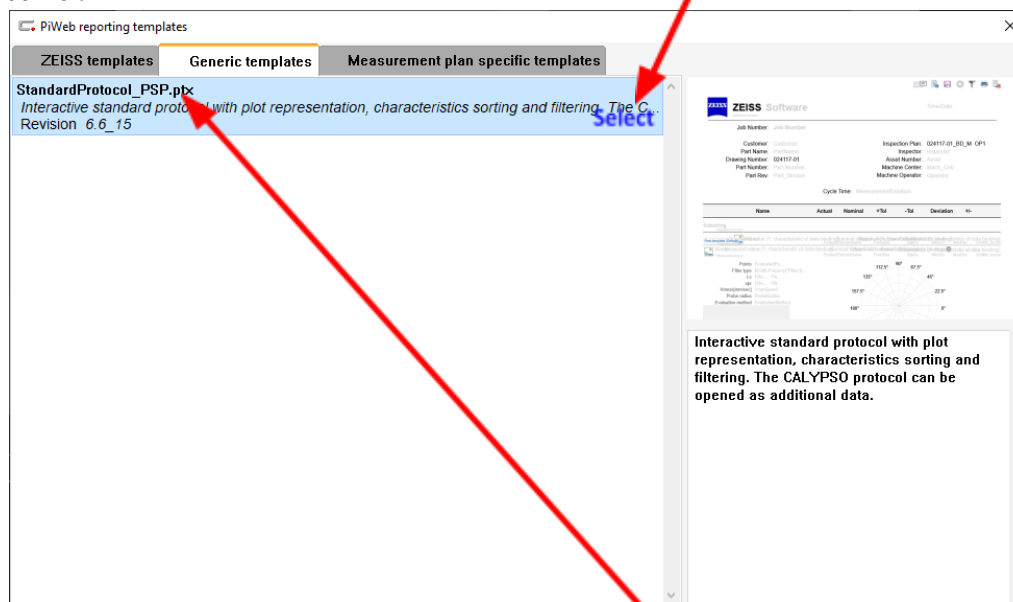
- e. Click on **Default Report_1** so that it's highlighted **Blue**.
- f. Check **ON** the Screen  and PDF-File  and TXT-File  buttons.
- g. Next click on **PiWeb Reporting_1** again so that it's highlighted **Blue**, then click on the “Select report header parameters”  button.
- h. Check **ON** the following checkboxes below paying close attention to which checkboxes are in the “Run” column and which are in the “Measurement” column:

Run	Measureme	Parameter Name			
☒	☐	Asset		☐	Material
☐	☐	Audit-No.:		☐	Material
☐	☐	Cavity		☐	Measurement type
☐	☐	Clamp ID		☐	Nest name
☐	☐	Clamp No.		☐	Nest number
☐	☐	Client		☐	Operation
☐	☐	Comment:		☒	Operator
☐	☒	Customer		☐	Order
☐	☐	Customer number		☐	Palette ID
☐	☐	Drawing index		☐	Palette location
☐	☒	Drawing No.		☐	Part Name
☐	☐	Fixture ID		☐	Part Number
☐	☐	Fixture No.		☐	Part Number
☒	☐	Incremental Part Number		☒	Part Number
☒	☐	Inspector		☒	Part Version
☒	☐	Job Number		☒	PartName
☐	☐	Line		☐	Reason for inspection
☐	☐	Lot ID		☐	Sample
☒	☐	Mach_Cntr		☐	Sample number
☐	☐	Machine name		☐	Sample size
☐	☐	Machine number		☐	Shift
☐	☐	Manufacturer		☐	Signature:
				☐	Start Comment

- i. Click “OK” and go back to the Multiple Report menu.

3. Next, make sure that the StandardProtocol PiWeb Report Template is turned on for the proper PiWeb Report format.

- a. In the Settings>Format section, click on the  button.
- b. Click on the “Generic Templates” Tab, then hit the blue “Select” in the bottom right-hand corner.



- c. Make sure the title of the generic template is “**StandardProtocol_PSP.ptx**”.
 - d. Once selected, close out the PiWeb Reporting Template menu.
4. Click “OK” in the Multiple Report menu, then save your changes in the CMM Program. If it is the first time you’re saving this program and it’s not already in the Network CMM Program Drive, follow the steps in the “**Saving CMM Programs WI**”.

Note 3:

If the “**StandardProtocol_PSP.ptx**” is not available, see the “**Loading PSP StandardProtocol PiWeb Report ptx Template WI**” for how to load it.

Note 4:

You’ll need to run a report to check and see if your PiWeb Report template is now in the correct format.

9. Quality Records:

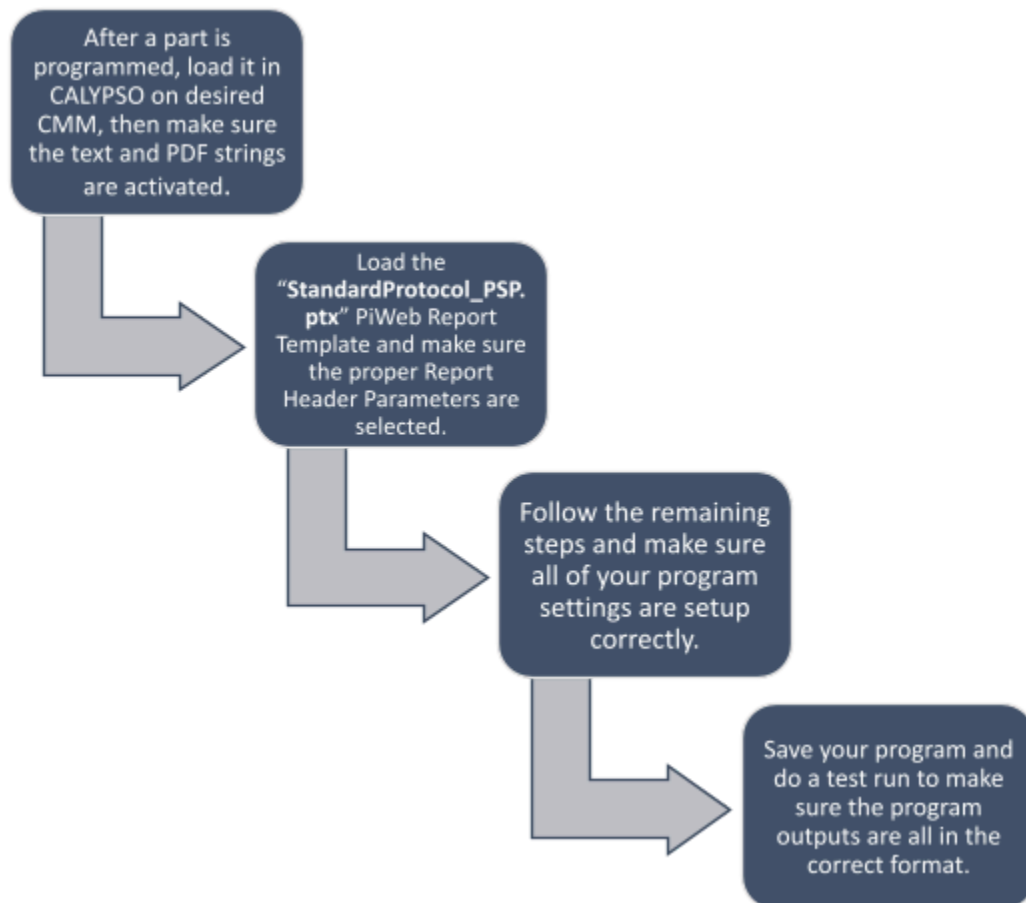
- a. PiWeb CMM Report in text and PDF format stored in the “High QA Import” and CMM specific “Results” folders on the designated CMM Program Drive.

Record Name	Owner	Location	Record Media
PiWeb Report Text Doc		zeiss (\\\psp-hq-fs1) (V:)	Electronic
PiWeb Report PDF Doc		NC Programs (Y:)	Electronic

10. Outputs:

The following process will help to make sure all your CMM Program settings and formatting are set correctly and consistently throughout all CMM Programs on the Network, and the data is routed to the correct dump folders before saving the program on the Network Drive.

11. Flow Chart:



Revision History			
Revision	Description of Change	Approver	Effective Date
1	Initial Release	Daniela Kozar	03/15/23

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