



PPAP CREATOR

User Guide

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Transformation Software Inc.
#3-295 Southgate Dr.
Guelph, ON
N1G 3M5

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Chapter 1

Welcome to PPAP Creator

About PPAP Creator
Features
About This Manual
Using PPAP Creator Help
System Requirements
Installing
Updating PPAP Creator

Chapter 1: Welcome to PPAP Creator

PPAP Creator is a complete tool for generating dimensional PPAP reports. Whether the data is from a CMM or other measurement tools, PPAP Creator will markedly reduce the time required to generate professional, errorless reports. It's ability to automatically retrieve specification and measurement results from CMM files, merge data from different CMM programs, and manually insert and edit PPAP results into a polished report ensures you will meet your PPAP submission deadline.

Chapter 1 provides a quick summary of the features of PPAP Creator, how to use help, the system requirements and instructions for installing the software, plus how to keep your version up-to-date.

Features

The following is a selection of features that are available with PPAP Creator:

- Capable of 100% automation from CMM data.
- Many CMM output templates ready to use – such as PC-DMIS, Virtual DMIS, and Calypso, to name just a few.
- View CMM data in All Data View (CMM output layout) or PPAP View (sorted by item number).
- Effortlessly add manual tool results.
- Select either QS CFG-1003 or ISO/IEC 17025 compliant PPAP report format.
- Show up to 6 sample results in a single report.
- Display GD&T feature control frames.
- Report profile results as Total Profile and indicate if plus or minus material condition exists.
- Include measurement notes to communicate where the measurement was taken.
- Customize information fields to meet your reporting requirements.

About this Manual

The purpose of this manual is to provide you enough information to get started using PPAP Creator. The manual reviews the different interfaces you will use plus how to import CMM files, enter manual tool results, save, print and export your PPAP report.

Please refer to the help file for complete documentation on the features that are available.

Using PPAP Creator Help

You can access the help by selecting the help button from the toolbar, or selecting F1. F1 opens the help file to the appropriate help document for the window you currently have open in PPAP Creator.

There are instructional tutorials available from our website's support section <http://www.transformationsoftware.com/support-tutorials.php>. You can view the tutorials over the web, or download them to your computer.

System Requirements

- PC with a Pentium 150 MHz or faster processor **
- Super VGA Monitor capable of 800x600 screen resolution, 256 colours
- 64 MB of RAM
- CD-ROM drive
- 10 MB of available hard-disk space
- Either Microsoft Windows 95/98/Me/2000/XP®, or NT 4.0® (requires Service Pack 4 or later)
- A PDF viewer program to view PDF reports
- Mouse or compatible pointing device recommended

Additional items or services required for using certain features:

- Internet access for online tutorials, web page help, program upgrades, and information
- Colour printer for colour output

**Performance increases dramatically with at least 128MB of Memory and a PII, Celeron, or faster processor.

Installing PPAP Creator

The following is the loading instructions for PPAP Creator. Select from one of the two options, depending on the protection device provided. **Note: Make sure you have administrative privileges before loading the software.**

Option A: For Parallel Port Lock

1. Attach Parallel Port Lock.
2. Insert CD – follow the instructions to install PPAP Creator.
3. Once successfully installed, you can run PPAP Creator and setup your preferences in the settings making sure to select the appropriate CMM output template.

Option B: For USB Port Lock

1. Insert CD – follow the instructions to install PPAP Creator.
2. Attach USB Port Lock when prompted by the installation wizard.
3. Once successfully installed, you can run PPAP Creator and setup your preferences in the settings making sure to select the appropriate CMM output template.

Depending on the operating system, you may be requested to restart the computer system.

Updating PPAP Creator

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Chapter 2

PPAP Creator Interface

Toolbar
Sample Bar
All Data View
PPAP Data View
Notes View
Title Page View

Chapter 2: PPAP Creator Interface

The PPAP Creator interface consists of a menu bar, toolbar, sample bar, and the edit window. The information displayed on the edit window depends on which of four PPAP Creator Views has been selected (All Data, PPAP Data, Notes, or Title Page View). The example below displays PPAP Data View.

The screenshot shows the 'Step Ahead PPAP Creator' application window. At the top, there is a menu bar (File, Edit, View, Insert, Tools, Data, Help) and a toolbar with various icons. Below the toolbar is a sample bar showing 'Sample 1 of 6' and 'Sample: 01 Cavity: 11A'. The main area displays a table titled 'Production Part Approval Dimensional Results' with the following data:

Item	Specification	Specification Note	+ Tol	- Tol	Measurement	Measurement Note	OK	Reject
1	2.000 DIM.	2 PLACES	0.05	0.05	2.004		✓	
					2.008		✓	
2	40.000 DIM.	BASIC			35.964	D- SIDE		
					79.968	SIDE OPPOSITE D-		
3	0.400 DIA.		0.100	0.100	0.429	HOLE AT 50.00 (ITEM 6) BASIC D- SIDE	✓	
					0.422	HOLE AT 40.00 (ITEM 2) BASIC D- SIDE	✓	
					0.420	HOLE AT 50.00 (ITEM 6) BASIC SIDE OPPOSITE D-	✓	
					0.441	AT 40.00 (ITEM 2) BASIC SIDE OPPOSITE D-	✓	
4	+ 0.3 M D				0.032	(Bonus: 0.128) HOLE AT 50.00 (ITEM 6) BASIC D- SIDE	✓	
					0.032	(Bonus: 0.122) HOLE AT 40.00 (ITEM 2) BASIC D- SIDE	✓	
					0.024	(Bonus: 0.120) HOLE AT 50.00 (ITEM 6) BASIC SIDE OPPOSITE D-	✓	
					0.024	(Bonus: 0.141) AT 40.00 (ITEM 2) BASIC SIDE OPPOSITE D-	✓	
5	11.400 DIM.		0.500	0.500	11.695	AT D- SIDE	✓	
					11.706	AT D- SIDE HOLE AT 40.00 BASIC	✓	
					11.558	AT SIDE OPP D-	✓	

At the bottom of the window, there is a status bar showing 'Item Count: 31', 'Sample Count: 6', 'CAPS', 'NUM', 'INS', '24-Jun-04', and '3:20 PM'. A footer note reads: 'Report created using Step Ahead Software® www.transformationsoftware.com Page # of ##'.

Toolbar



The following lists the PPAP Creator Toolbar Icons:

Icon	Title	Description
	New	Begin a new PPAP Creator project.
	Open	Open an existing PPAP Creator project.
	Save	Save the current PPAP Creator project.
	Import	Import CMM output files to the current project.
	Export	Creates a PDF file of the PPAP report.
	Print	Prints the PPAP report.
	Refresh	Refresh the screen.
	Cut	Cut the selected text.
	Copy	Copy the selected text.
	Paste	Paste from the clipboard.
	Find	Opens the Find window to search for a phrase in the project.
	Edit Mode	Select the mode to view and/or edit - PPAP View, All Data View, Notes, or Title Page.
	Manual Entry	Open the Manual Entry window.
	Header	View or Hide the Header.
	Footer	View or Hide the Footer.
	Tool Tip	Turn On or Off the Tool Tip feature. Tool Tip shows deviation from nominal, % tolerance used, out of tolerance by, and CMM tag identification.
	Measurement Type	Select the Measurement Type from the drop-down list - ANG., DIA., DIM., PROFILE, RAD., TP, VECTOR - for the selected item.
	Grouping	Select the Grouping option from the drop-down list - None, Minimum, Maximum, Range, and Worst Case - for the selected item.
	Comment	Select a Comment from the drop-down list. For example: Used in CMM Construction, Basic, etc.
	Settings	Opens the Settings window.
	Help	Opens the Help window.






Sample Bar

The following is the Sample Bar that is available in all views except for All Data View. The Sample Bar allows you to move between samples, paste across samples, edit sample list, merge samples, add samples, and delete samples.




The Sample Bar indicates which sample/file the data being displayed on the screen are for. To switch to a different sample use the backward and forward arrows, or click on the sample number.

The following lists the Sample Bar icons:

Icon	Title	Description
	Paste Across Samples	Click to copy and paste the contents of the current field to all incidents of the same field for all samples. Note: Only applicable for Sample Measurements and Sample Measurement Notes.
	Edit Sample List	Opens the Edit Files window.
	Merge Sample	Click to merge two imported CMM output files together.
	Add Samples	Click to add a sample. The newly added sample contains all specification information. The Measurement and Measurement Note area are empty, awaiting data entry.
	Delete Samples	Deletes the current sample.

PPAP Creator Views

There are 4 views available with PPAP Creator. You can change between the different views from the View menu or from the Edit Mode  icon on the tool bar. Note, the availability of some of the views depends on the settings that have been selected.

- All Data View displays the measurements as it appears in the CMM output file.
- PPAP Data View displays the measurements according to blueprint item number.
- Notes View displays any general notes and manual tool traceability.
- Title Page View displays the first page of a 17025 compliant PPAP report.

All Data View

The All Data View displays the measurement data as it appears in the CMM output file. The specification information is presented on the left hand side of the window and all the imported sample results (actual) displayed in sequence to the right of the specification information. The blueprint number (BP#), specification (Nominal, +tol, -tol), and results information is editable from this screen. To edit, double click the field or with an active field select enter (it will turn yellow with a flashing cursor).

Line	Char	Feat	BP #	Axis	Nominal	+Tol	-Tol	Sample 01 > 1	Sample 02 > 2	Sample 03 > 3	Sample 04 > 4	Sample 05 > 5
104					OPPOSITE A-SIDE (ITEM 9,TP,AT OPPOSITE A-SIDE,POSITION 0.5w/AB) 2 HOLES]							
105					DIM D22= TRUE POSITION OF CIRCLE DIA70FP							
106				X	0.000			-0.037	-0.039	-0.046	-0.068	-0.026
107				Z	0.000			-0.097	-0.096	-0.051	-0.001	-0.021
108				DP	0.400		0.100	0.412	0.415	0.419	0.415	0.412
109					Bonus			0.112	0.115	0.119	0.115	0.112
110				3	TP			0.207	0.079	0.127	0.125	0.067
111					Bonus			0.152	0.115	0.119	0.115	0.112
112												
113					20.0 DIA. (ITEM 28), 18.1 DIM. (ITEM 21) & 26.40 DIM. (ITEM 24) (ITEM 28,D,AT A-SIDE) (ITEM 21,X,AT A-SIDE) (ITEM 24,Z,AT A-SIDE)							
114					AT A-SIDE							
115					DIM D23= LOCATION OF CIRCLE DIA28A							
116				X	18.100	1.000	1.000	18.107	18.090	18.033	18.070	18.088
117				Z	26.400	0.500	0.500	26.462	26.427	26.496	26.383	26.457
118				D	20.000	1.000	1.000	20.019	20.019	20.016	20.025	20.011
119												
120					OPPOSITE A-SIDE (ITEM 28,D,AT OPPOSITE A-SIDE) (ITEM 21,X,AT OPPOSITE A-SIDE) (ITEM 24,Z,AT OPPOSITE A-SIDE)							
121					DIM D24= LOCATION OF CIRCLE DIA280FP							
122				X	18.100	1.000	1.000	18.132	18.121	18.037	18.147	18.121
123				Z	26.400	0.500	0.500	26.372	26.398	26.290	26.379	26.376
124				D	20.000	1.000	1.000	20.029	20.023	20.021	20.011	20.021
125												
					26.0 DIA. (ITEM 25), 32.8 DIM. (ITEM 19) & 15.90 DIM. (ITEM 18)							

Note: Any manual measurements that were entered will appear at the end of the list, with the axis identification M,E.

For CMM output files that are not coded for automatic retrieval of the balloon number, the balloon number can be manually entered into the BP# column while in All Data View. In this instance, the nominal, tolerances, and actual results will then be presented in PPAP View.

The All Data View displays the following columns:

Column ID	Description
Line	The line in the PPAP matrix. Each line in the CMM output file is transferred to a line in All Data View.
Char	The characteristic in the PPAP matrix. A characteristic contains one or more features that were measured on the CMM.
Feat	The feature in the PPAP matrix. A feature is a point that was measured, and contains all the applicable axes for that measurement.
BP#	Blueprint number. Represents the item identification (part map number, or balloon number) from the blueprint. Blueprint numbers are required for the data to be reported in PPAP Creator. Can be numeric, alphabetical, or alphanumeric.
Axis	The axis for the measurement from the CMM. The axis name is dependent on the CMM software you are using. For example True Position is represented as TP in PC-DMIS, and Tpos2d in Virtual DMIS.
Nominal	The nominal value from the CMM output for the axis is displayed. This value must be numeric.
+Tol	The plus tolerance value from the CMM output for the axis is displayed. This value must be numeric.
-Tol	The minus tolerance value from the CMM output for the axis is displayed. This value must be numeric.
Samples	The actual measurement results for all the samples are displayed. This value must be numeric.

PPAP Data View

The PPAP Data View displays the data according to blueprint/balloon number. If there isn't a blueprint/balloon number associated with an axis in the All Data View, it will not appear in the PPAP Data View.

The PPAP Data View is a representation of what the printed report will look like for a single sample. When multiple samples have been imported, use the Sample Bar to display the sample results you wish to view. (Note: PPAP Data View only displays results for one sample on the screen even when multi-sample printing has been selected.)

The information is editable in this view. To edit, double click the field or with an active field select enter (the cell will turn yellow with a flashing cursor). Any changes to the Item, Specification, +tol, -tol, or Measurement will be reflected the All Data View and final printout. For the OK and Reject fields, double-click the field to add or remove the "X".



Item	Specification	Specification Note	+ Tol	- Tol	Measurement	Measurement Note	OK	Reject
1	2.000 DIM	2 PLACES	0.05	0.05	2.004		X	
					2.008		X	
2	40.000 DIM	BASIC			39.984	D- SIDE		
					39.988	SIDE OPPOSITE D-		
3	8.400 DIA		0.100	0.100	8.429	HOLE AT 50.00 (ITEM 6) BASIC D- SIDE	X	
					8.422	HOLE AT 40.00 (ITEM 2) BASIC D- SIDE	X	
					8.420	HOLE AT 50.00 (ITEM 6) BASIC SIDE OPPOSITE D-	X	
					8.441	AT 40.00 (ITEM 2) BASIC SIDE OPPOSITE D-	X	
4	+ 0.3 M D				0.032	(Bonus: 0.128) HOLE AT 50.00 (ITEM 6) BASIC D- SIDE	X	
					0.032	(Bonus: 0.123) HOLE AT 40.00 (ITEM 2) BASIC D- SIDE	X	
					0.024	(Bonus: 0.120) HOLE AT 50.00 (ITEM 6) BASIC SIDE OPPOSITE D-	X	
					0.024	(Bonus: 0.141) AT 40.00 (ITEM 2) BASIC SIDE OPPOSITE D-	X	
5	11.480 DIM		0.500	0.500	11.695	AT D- SIDE	X	
					11.706	AT D- SIDE HOLE AT 40.00 BASIC	X	
					11.558	AT SIDE OPP D-	X	

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Item Count: 31 Sample Count: 6 CAPS NUM INS 24-Jun-04 3:20 PM

The PPAP Data View displays the following columns:

Column ID	Description
Item	Item refers to the blueprint number. Can be numeric, alphabetical, or alphanumeric.
Specification	<p>Specification refers to the blueprint specification, or the nominal. The entry must be numeric.</p> <p>Note: To change the Specification Type (e.g. DIM., RAD., etc.), select the field (has a grey box around it - not in edit mode) and click the down arrow of the measurement type icon  and select from the drop-down list of available measurement types.</p>
Specification Note	Specification Note refers to any blueprint notification regarding a specification, such as how many places.
+TOL	+Tol refers to the blueprint plus tolerance specification. The entry must be numeric.
-TOL	-Tol refers to the blueprint minus tolerance specification. The entry must be numeric.
Measurement	Measurement refers to the results, or actual for the item measured. The entry must be numeric.
Measurement Note	<p>Measurement Note refers to any notes regarding the result, such as an indication where the measurement was taken.</p> <p>Note: There are comments available to be inserted from the comment list. Double click the measurement note field (in edit mode now) and click the down arrow of the comment button  and select from the comments that are available. For example: Used in CMM Construction, MMC Applied, etc.</p>
OK	OK is marked when the measurement is within the allowable specification range. The asterisk can be removed or added by double clicking the field.
Reject	Reject is marked when the measurement is outside the allowable specification range. The asterisk can be removed or added by double clicking the field.

Notes View

The Notes View displays the last page of the PPAP Report, showing General Notes and manual tool Traceability information that has been entered. Each sample's General Notes is independent of the others while the manual tool traceability is interdependent (always the same for each sample). However, each sample's General Notes become interdependent when multi-sample printing has been selected.

Use the Sample Bar to display the notes you wish to view and or edit.

The screenshot shows the 'Step Ahead PPAP Creator' application window. The title bar reads 'Step Ahead PPAP Creator'. The menu bar includes 'File', 'Edit', 'View', 'Insert', 'Tools', 'Data', and 'Help'. The toolbar contains various icons for file operations and navigation. The main window displays a report titled 'Production Part Approval Dimensional Results'. The report header includes 'Sample 1 of 3', 'Sample: 01', 'Cavity: 11A', and 'Lot: 11A'. The report content is as follows:

Customer: ABC COMPANY	Part Number: 123456789
Job Number: 1245	Sample Identification: Sample 01

General Notes
Part measured with an open set-up.
Item 11, 12, 13, & 14 were not measured - no access to features with CMM.
Item 23 is used in CMM construction.

Traceability
Item 22: Micrometer (Serial# 2659)
Item 35: Vernier (Serial# 56874-854)
All other items were measured with the CMM.

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Item Count: 23 Sample Count: 3 CAPS NUM (RS) 01-Jul-04 8:47 AM

The General Notes area contains any notes that have been indicated in the CMM output file for reporting. As well, text can be manually added to the text box in this view. The notes are sample specific, meaning the notes can be different for each sample (only when multi-sample printing is turned off).

The Traceability area lists all Item numbers and the corresponding tool identifications that were entered from the Manual Entry window. As well, text can be manually added to the text box in this view. The Traceability area is universal, meaning any changes made to a samples Traceability text box on the notes page will also be reflected in the other samples.

Title Page View

The Title Page View displays the first page of the 17025 Compliant PPAP Report format. It contains job identification information, traceability with disclaimers, uncertainty, and an area for an approval signature. This information can be automatically retrieved from the CMM output file or entered manually while in Title Page View.

To edit, click the field. A flashing cursor bar will appear. Use the TAB key to move between editable fields.

Each sample's Title Page is independent of the others. However, the Title Page is interdependent (always the same for each sample) when multi-sample printing has been selected.

Use the Sample Bar to display the Title Page you wish to view and or edit.

The screenshot shows the 'Step Ahead PPAP Creator' application window. The title bar includes 'File Edit View Insert Tools Data Help'. The menu bar contains 'File Edit View Insert Tools Data Help'. The toolbar has various icons for file operations and printing. The status bar at the top shows 'Sample 1 of 3', 'PREVIEW', and 'Sample: 01 Cavity: 1A Lot: 1A'. The main content area displays the 'TRANSFORMATION SOFTWARE INC.' logo and contact information: '#3 - 295 Southgate Dr., Guelph, ON N1G 3M5 Phone: (519) 822-7648 Fax: (519) 822-2633 Email: info@transformationsoftware.com'. The report title is 'Production Part Approval Dimensional Results'. Below this is a table with the following data:

Customer:	Job Number:
ABC COMPANY	1245
Address:	Part Number:
GUELPH, ONTARIO	123456789
Specification:	Part Name:
As per customer drawing and/or CAD	ABC BRACKET
Program:	Supp. Revision:
ABC_12345_May_28_04.DMS	A
Programmed By:	CAD:
DA	12345 Jgs
Environment:	Inspected By:
20" ± 2"	RD
Inspection Date:	Units:
May 28, 2004	MM
Issue Date:	Sample Identification:
01-Jul-04	Sample: 01

Below the table is a disclaimer: 'This Production Part Approval Report - Dimensional Results is issued in accordance with the applicable requirements of ISO/IEC 17025, ISO 10012-1, and ISO 9000. Measurement results are traceable to the National Research Council (NRC), Canada, the National Institute of Standards and Technology (NIST), or the National Accreditation of Measurement and Sampling (NAMAS).'

At the bottom, there is a section for 'Equipment Used / Traceability:' and a status bar showing 'Item Count: 23', 'Sample Count: 3', 'CAPS', 'NUM', 'IIS', '01-Jul-04', and '10:38 AM'.

Chapter 3

Importing CMM Output

Importing CMM Output Files
100% Automation from CMM Files
GD&T Recognition
Measurement Group
Manual Entry Results in CMM Files
Negative Nominal


Chapter 3: Importing CMM Output

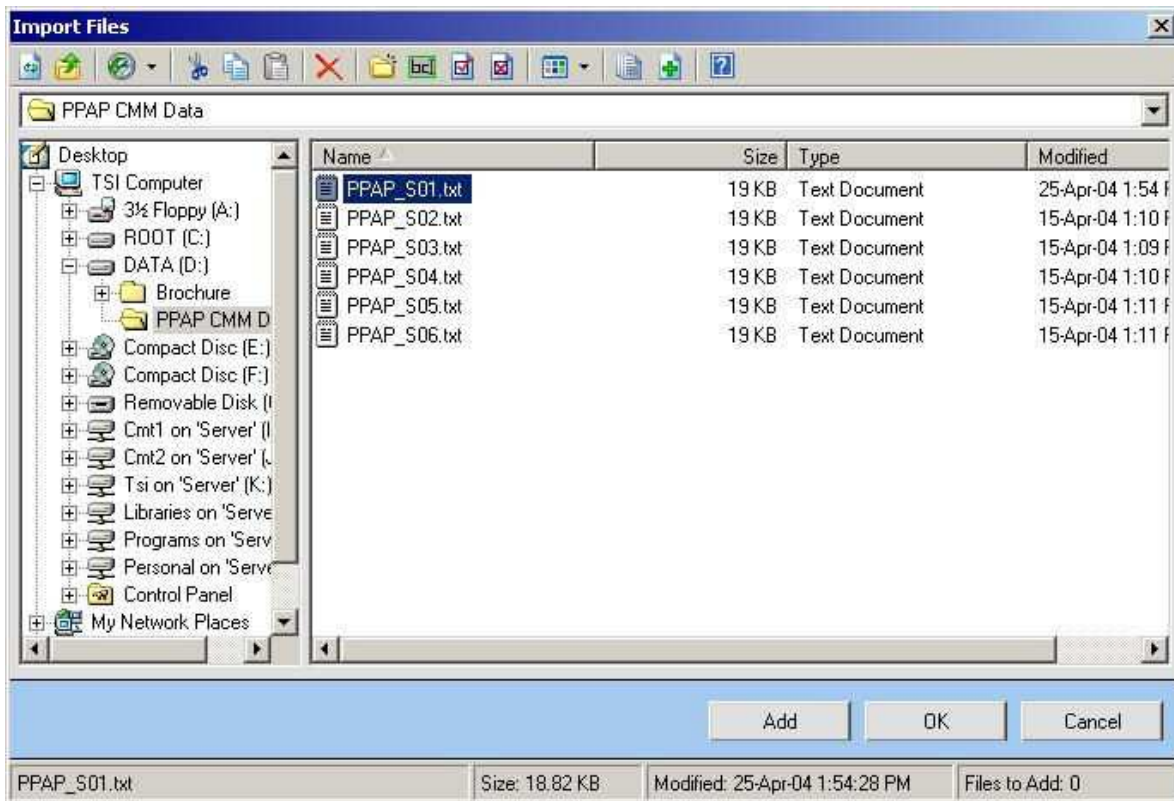
This chapter covers how to import data from a CMM output file, how to present the data in the file for 100% automation, how to present GD&T for recognition, how to present manual entry results in the CMM file, and how PPAP Creator handles negative nominals when generating the PPAP report.

Importing CMM Output Files

Importing a CMM output file is as simple as selecting import, browsing and selecting the CMM output file.

To import CMM output files:

1. Select the  Import CMM Data icon from the toolbar. The Import Files window opens.
2. Browse to the CMM data file(s) and select the file(s) to be imported.
3. Select Add.
4. Continue to Browse and Add until all the CMM files to be imported have been added.
5. Select OK



If the imported file contains the required PPAP recognition identifiers, PPAP Creator will display the measurements with the appropriate balloon/item number associated to them. However, if the file does not contain the required information, the data will be imported and displayed in All Data View. From All Data View, the balloon/item number can be entered into the BP# column and then the results can be viewed through PPAP View, arranged by item number.

100% Automation from CMM Files

PPAP Creator can be used to manually input data from many sources, but a huge time saving feature with CMM data is to include header notes for the measurements to be identified automatically by PPAP Creator – eliminating the need to manually transfer CMM results into the PPAP report.

The following explains the rules for 100% automation from your CMM output.

PPAP identification information must be enclosed between square brackets [] (or the characters defined in the template settings) as a note just before the applicable measurement results.

For Example:

[ITEM 22]

DIM D7 = 2D ANGLE FROM LINE LN22 TO XAXIS

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
A	12.000	1.000	1.000	11.879	-0.121	0.000

Inside the square brackets, four types of information can be contained, delimited by commas.

[Item ID, Axis, Measurement Note, Specification Note]

1. The first location is to identify the item (balloon) number from the drawing. The item number must be identified with the word ITEM (e.g. ITEM 22), or the word defined in the template settings.
2. The second location is to identify which axis the item number relates to (e.g. TP). The second location is OPTIONAL ONLY if there is just one axis reported in the CMM report for that measurement.
3. The third location is to identify any notes to be conveyed in the report for the measurement result/actual. (e.g. AT 18.0 DIM.) The third location is OPTIONAL.
4. The fourth location is to identify any notes to be conveyed in the report for the specification/nominal information, plus any GD&T feature control frames to be reported. The fourth location is OPTIONAL.

For example: [Item 12,TP,AT 18.0 DIM., POSITION d 0.5mlAml 2 Places]

The simplest format is to just identify the item number, and not have any specification or measurement notes to add. This format without an axis identification can only be used if there is only one axis being reported. For example:

[ITEM 22]

DIM D7= 2D ANGLE FROM LINE LN22 TO XAXIS

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
A	12.000	1.000	1.000	11.879	-0.121	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
22	12.000 DEG.	1.000	1.000	11.879	*	

When there is more than one axis reported, the axis must be identified in the second location. For example:

[ITEM 16,X]

DIM D14= LOCATION OF CIRCLE DIA16A

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
X	55.600	0.500	0.500	55.767	0.167	0.000
Z	9.100	0.500	0.500	9.110	0.010	0.000
D	6.400	0.100	0.100	6.369	-0.031	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
16	55.600 DIM.	0.500	0.500	55.767	*	

If you have measurement notes you want to appear in your PPAP report, add the information in the third location. For example:

[ITEM 16,X,AT -A- SIDE]

[ITEM 18,D,AT -A- SIDE]

[ITEM 14,Z,AT -A- SIDE]

DIM D14= LOCATION OF CIRCLE DIA16A

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
X	55.600	0.500	0.500	55.767	0.167	0.000
Z	9.100	0.500	0.500	9.110	0.010	0.000
D	6.400	0.100	0.100	6.369	-0.031	0.000

[ITEM 16,X,OPPOSITE -A- SIDE]

[ITEM 18,D,OPPOSITE -A- SIDE]

[ITEM 14,Z,OPPOSITE -A- SIDE]

DIM D22= LOCATION OF CIRCLE DIA16B

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
X	55.600	0.500	0.500	55.264	-0.336	0.000
Z	9.100	0.500	0.500	9.290	0.190	0.000
D	6.400	0.100	0.100	6.407	0.007	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
14	9.100 DIM.	0.500	0.500	9.110 AT -A- SIDE	*	
				9.290 OPPOSITE -A- SIDE	*	
16	55.600 DIM.	0.500	0.500	55.767 AT -A- SIDE	*	
				55.264 OPPOSITE -A- SIDE	*	
18	6.400 DIM.	0.100	0.100	6.369 AT -A- SIDE	*	
				6.407 OPPOSITE -A- SIDE	*	

If you have specification notes you want to appear in your PPAP report, add the information in the fourth location. For example:

[ITEM 29,X,,BASIC]

DIM D30= TRUE POSITION OF CIRCLE DIA8A1

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
X	-31.400			-31.155	0.245	
Z	54.620			54.491	-0.129	
DF	8.400	0.100	0.100	8.442	0.042	0.000
TP	RFS-MMC	0.500			0.555	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
29	31.400 DIM. BASIC			31.155		

If you have GD&T feature control frames you want to appear in your PPAP report, add the GD&T information in the fourth location. For example:

[ITEM 9,TP,,POSITION 0.5mlA|B|]

DIM D30= TRUE POSITION OF CIRCLE DIA8A1

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
X	-31.400			-31.155	0.245	
Z	54.620			54.491	-0.129	
DF	8.400	0.100	0.100	8.442	0.042	0.000
TP	RFS-MMC	0.500			0.555	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
29	Φ 0.5 $\text{\textcircled{A}}$ B			0.555	*	

If you did not provide GD&T feature control information in the fourth location, the resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
29	TP	0.5		0.555	*	

GD&T Recognition















PPAP Creator will automatically recognize and print a feature control frame in the Specification field by following these simple rules when creating the PPAP comma delimited information line.

To include GD&T feature control frames:

- GD&T information must be included in the SPECIFICATION NOTE area of a PPAP comma delimited information line. E.g. [ITEM 3,TP,AT ITEM 4, POSITION|d0.05mlA|Bs|].
- The Geometric Characteristic must be identified using one of the ACCEPTABLE IDENTIFIERS listed in the table below. IDENTIFIERS are not case sensitive, except for Diameter which must be reported as a lower case d.
- All Datum identifications must be in upper case.
- All Modifiers must be in lower case.
- Use a vertical line (|) to show the dividers in the feature control frame.
- All feature control frame identifications must end with a vertical line (|) to close the frame.

Example GD&T feature control frame construction: POSITION|d0.05m|A|B|S|

Resulting Feature Control Frame: $\text{⌀} \text{ } \text{⌀}0.05 \text{ } \text{M} \text{ } \text{A} \text{ } \text{B} \text{ } \text{S}$

CHARACTERISTIC	SYMBOL	ACCEPTABLE IDENTIFIERS * Not Case Sensitive * * Only Exception - Diameter *
angularity		ANGULARITY, ANG., ANG, AN., AN
circularity (roundness)		ROUNDNESS, ROUND., ROUND CIRCULARITY, CIRC., CIRC
concentricity		CONCENTRICITY, CONCENTRIC, CONCEN., CONCEN
cylindricity		CYLINDRICITY, CYL., CYL
diameter	⌀	d
flatness		FLATNESS, FLAT., FLAT
parallelism		PARALLELISM, PARAL., PARAL, PAR., PAR
perpendicularity (squareness)		PERPENDICULARITY, PERPENDICULAR, PERP., PERP SQUARENESS, SQUARE., SQUARE, SQ., SQ, SQNESS
position		POSITION, POS., POS, TRUE POSITION, TRUE POS., TRUE POS, T.P., TP
profile of a line		LINE PROFILE, LN. PROFILE, LN PROFILE, LN. PROF., LN PROF, PROFILE OF LINE, PROF. OF LINE, PROF. OF LN., PROF OF LN
profile of a surface		PROFILE, PROF., PROF, SURFACE PROFILE, SURF. PROFILE, SURF PROFILE, SURF. PROF., SURF PROF, PROFILE OF A SURFACE
runout - circular		RUNOUT, CIRCULAR RUNOUT
runout - total		TOTAL RUNOUT
straightness		STRAIGHTNESS, STRAIGHT., STRAIGHT
symmetry		SYMMETRY, SYM., SYM

Measurement Group

Identifying a measurement group lets PPAP Creator know how to interpret your CMM data. A measurement group is identified by a period being placed in front of the square bracket of the PPAP comma delimited information line. The period indicates to PPAP Creator to continue looking and identifying the axis until another period is detected or a .END command is found.

In its simplest form, a measurement group represents a blue print characteristic with just one measurement. For example, the following CMM output shows one measurement for one blue print characteristic (item 2).

For Example:

.[ITEM 2,Z]

=====

DIM D10= LOCATION OF POINT IT2

AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
Z	12.000	0.500	0.500	11.915	-0.085	0.000

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
2	12.000 DIM.	0.500	0.500	11.915	*	

The next level is when a measurement group represents a blue print characteristic with more than one measurement. For example, the following CMM output shows two measurements for one blue print characteristic (item 5, True Position).

For Example:

.[ITEM 5,TP,AT 18.0 DIM. (ITEM 1),POSITION 0.5mlAml]

DIM D12= TRUE POSITION OF CIRCLE IT4_A1

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				0.018	0.018	
Z	18.000				18.038	0.038	
DF	10.000	0.100	0.100	0.136	10.036	0.036	0.000
TP	RFS-MMC	0.500		0.136		0.083	0.000

DIM D16= TRUE POSITION OF CIRCLE IT4_A2

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				-0.004	-0.004	
Z	18.000				17.993	-0.007	
DF	10.000	0.100	0.100	0.136	10.045	0.045	0.000
TP	RFS-MMC	0.500		0.136		0.016	0.000

Summary: Both measurement results for the TP Axis will be reported with the same measurement note attached.

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
5	⌀ 0.5 (M) A (M)			0.083 AT 18.0 DIM. (ITEM 1)	*	
				0.016 AT 18.0 DIM. (ITEM 1)	*	

The next level of complexity is when a measurement group represents a blue print characteristic with more than one measurement plus additional blue print characteristics reported. For example, the following CMM output shows four measurements for one blue print characteristic (item 5, True Position) plus two other blue print characteristics (item 1, DIM and item 2, DIM) which are both recorded as z values. The change over to the new identification for the second incident of the z value must be designated as a Second Level Measurement Group. A second level measurement group is identified by a colon being placed in front of the square bracket of the PPAP comma delimited information line. If a period, rather than a colon was used, the True Position data following the Item 2 designation would not get reported.

As well, the True Position measurement note for the last two measurements is different from the first two measurements. This is accomplished by applying a second level measurement note to the last two measurements. If the measurement note did not need to change, then the second level PPAP comma delimited information line (:[ITEM 5,TP,AT 12.00 DIM.(ITEM 2),POSITION 0.5m|Aml]) would not need to be in the file and all four measurements would have the same measurement note attached.

For Example:

```
. [ITEM 5,TP,AT 18.0 DIM. (ITEM 1),POSITION 0.5m|Aml ]
.[ITEM 1,Z]
```

DIM D12= TRUE POSITION OF CIRCLE IT4_A1

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				0.018	0.018	
Z	18.000				18.038	0.038	
DF	10.000	0.100	0.100	0.136	10.036	0.036	0.000
TP	RFS-MMC	0.500		0.136		0.083	0.000

DIM D16= TRUE POSITION OF CIRCLE IT4_A2

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				-0.004	-0.004	
Z	18.000				17.993	-0.007	
DF	10.000	0.100	0.100	0.136	10.045	0.045	0.000
TP	RFS-MMC	0.500		0.136		0.016	0.000

:[ITEM 5,TP,AT 12.00 DIM.(ITEM 2),POSITION 0.5m|Aml]

:[ITEM 2,Z]

DIM D22= TRUE POSITION OF CIRCLE IT4_B1

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				0.018	0.018	
Z	-12.000				-12.000	0.000	
DF	10.000	0.100	0.100	0.126	10.026	0.026	0.000
TP	RFS-MMC	0.500		0.126		0.041	0.000

DIM D23= TRUE POSITION OF CIRCLE IT4_B2

AX	NOMINAL	+TOL	-TOL	BONUS	MEAS	DEV	OUTTOL
Y	0.000				-0.025	-0.025	
Z	-12.000				-12.000	0.000	
DF	10.000	0.100	0.100	0.144	10.044	0.044	0.000
TP	RFS-MMC	0.500		0.144		0.050	0.000

Summary: Four measurement results for Item 5 (TP Axis) will be reported; the first two with the same measurement note, and the third and fourth with the same measurement note attached. Both measurement results for Item 1 (Z Axis) will be reported and both measurement results for Item 2 (Z Axis) will be reported.

The resulting PPAP would look like this:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
1	18.000 DIM.			18.038		
				17.993		
2	12.000 DIM.			12.000		
				12.000		
5	ϕ 0.5(M) A(M)			0.083 AT 18.0 DIM. (ITEM 1)	*	
				0.016 AT 18.0 DIM. (ITEM 1)	*	
				0.041 AT 12.00 DIM.(ITEM 2)	*	
				0.050 AT 12.00 DIM.(ITEM 2)	*	

Manual Entry Results in CMM Output File

Manual measurement results can be entered into your CMM report as a comment line, and be automatically imported into PPAP format. This gives the option to either enter manual tool data directly into the CMM output file, or enter the manual tool data using PPAP Creator's Manual Data Entry.

Entering manual tool data directly into the CMM output file is achieved by following the same comma delimited format as for automatic retrieval from the CMM file. The functionality of the comma-delimited line has been expanded to allow for nominal/specification, tolerance, and actual results to be reported.

[item ID, ME, measurement note, specification note, nominal, +tol, -tol, actual]

For example: [ITEM 6,ME,,2 PLACES,2.00,0.5,0.5,2.03,2.18]

1. The first location is to identify the item (balloon) number from the drawing. Must be identified with the word item (e.g. Item 12). (Or the word defined in the Template settings as blueprint identification markers.)
2. The second location is to identify the item as a manual entry. Enter ME in this location. You can also specify the axis type, by entering the type of specification (e.g. DIM, RAD) after the ME. For example [ITEM 2,ME DIM]. A default setting for ME spec. type can be designated. Only enter a specification type if the item's designation is different from the default in the settings.
3. The third location is for identifying any notes you want conveyed in your report for the measurement results. The third location is OPTIONAL.
4. The fourth location is for identifying any notes you want conveyed regarding the specification. Plus any GD&T feature control frames you want reported. The fourth location is OPTIONAL.
5. The fifth location is for identifying the nominal, and will be reported in the specification column. The nominal must be numerical. The fifth location is OPTIONAL.
6. The sixth location is for identifying the plus tolerance. Just enter the value, not the "+" sign. The tolerance must be numerical. The sixth location is OPTIONAL.
7. The seventh location is for identifying the minus tolerance. Just enter the value, not the "-" sign. The tolerance must be numerical. The seventh location is OPTIONAL.
8. The eighth and subsequent locations are for identifying the actual. Enter as many actual results as required (e.g. if you take readings in 3 places, enter all three results). Multiple actual results must be separated by commas, and must be numerical. The eighth and subsequent locations are OPTIONAL.

For example, [ITEM 6,ME DIM.,,2 PLACES,2.00,0.5,0.5,2.03,2.18], resulting in the following PPAP report:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
6	2.00 DIM. 2 PLACES	0.5	0.5	2.03	*	
				2.18	*	

A manual entry comma delimited line can be added anywhere in the CMM output report, as long as it falls after the beginning of measurement - as defined in the settings for the template in use.

Negative Nominals

Parts are measured on the CMM in relative space, thus, sometimes the nominals for some features are reported as a negative value. In these incidents, the plus and negative tolerances are reversed (compared to the blueprint). For example the drawing shows Item 12 as 0.2480 + 0.005. The CMM report could show the result as:

[ITEM 12]

```

=====
DIM D14= LOCATION OF POINT IT12A
AX  NOMINAL  +TOL  -TOL  MEAS  DEV  OUTTOL
X   -0.2480          0.0050  -0.2498  -0.0018  0.0000

```

PPAP Creator reads in the nominals, tolerances and measured value directly from the CMM report which will result in the following PPAP report:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
12	-0.2480 DIM.		0.0050	-0.2498	*	

However, you have the option to report the negative values as shown above OR report all nominals as positive values, which better reflects the drawing specification.

If you select to report all nominals as positive values, PPAP Creator converts all negative nominal results to the positive. This means the nominal and measurement result will be multiplied by -1 and the plus/minus tolerances in the CMM report will be switched. Thus, the PPAP will report as follows:

ITEM	SPECIFICATION	+TOL	-TOL	MEASUREMENT RESULTS	OK	REJ
12	0.2480 DIM.	0.0050		0.2498	*	

Chapter 4


Manual Entry

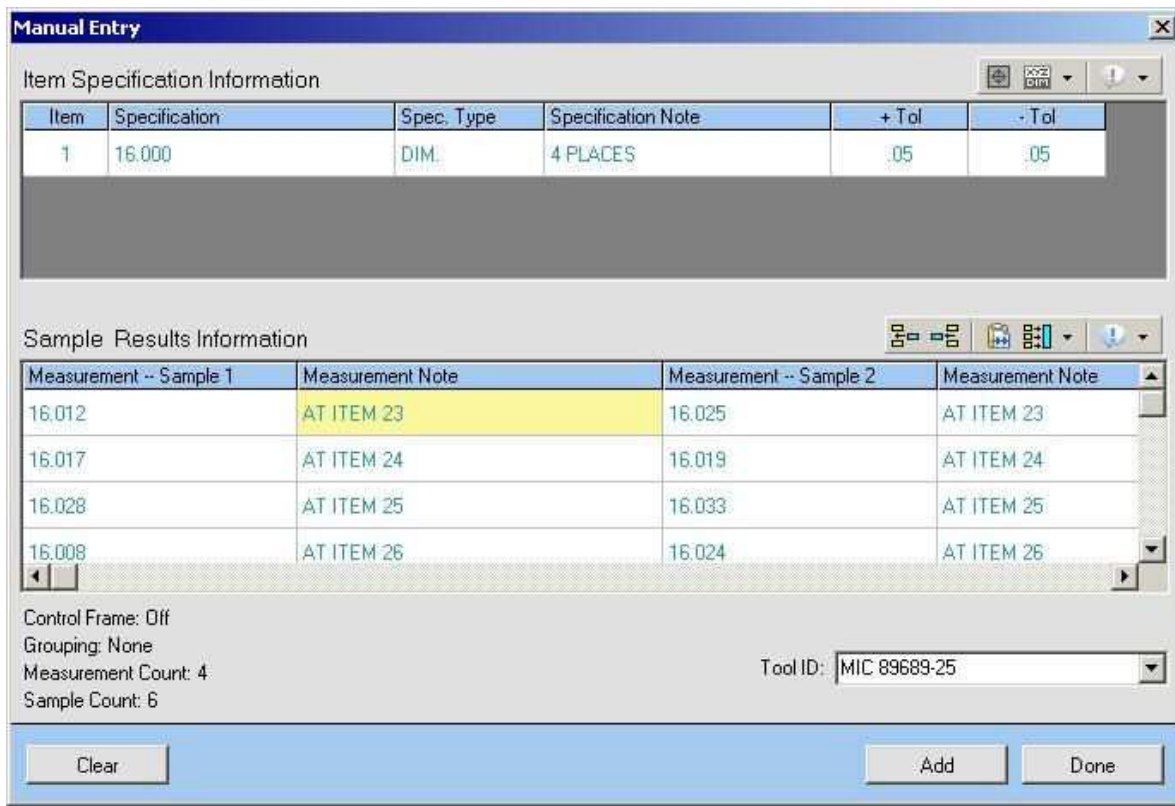
Manual Entry
GD&T Font

Chapter 4: Manual Entry

This chapter covers how to add specification and result information to PPAP for items that are not included in the CMM output file. The Manual Entry window interface allows you to effortlessly enter item specification, results information, plus measurement traceability information.

Manual Entry

To add PPAP items or generate a PPAP report from sources other than the CMM, select the Manual Entry icon  from the toolbar. The Manual Entry window opens.



The screenshot shows the 'Manual Entry' window with two main sections: 'Item Specification Information' and 'Sample Results Information'.

Item Specification Information

Item	Specification	Spec. Type	Specification Note	+ Tol	- Tol
1	16.000	DIM.	4 PLACES	.05	.05

Sample Results Information

Measurement -- Sample 1	Measurement Note	Measurement -- Sample 2	Measurement Note
16.012	AT ITEM 23	16.025	AT ITEM 23
16.017	AT ITEM 24	16.019	AT ITEM 24
16.028	AT ITEM 25	16.033	AT ITEM 25
16.008	AT ITEM 26	16.024	AT ITEM 26

Control Frame: Off
 Grouping: None
 Measurement Count: 4
 Sample Count: 6

Tool ID: MIC 89689-25

Buttons: Clear, Add, Done

To enter data, double-click on the field. While in edit mode, you can tab between fields to enter data.

With all the information entered for a blueprint item in the manual entry fields, select ADD to have the data added to the PPAP report and the Manual Entry window will be empty,



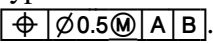



ready for the next item to be entered. Note: A value must be entered in the ITEM field for the information to be added to the PPAP report.



The manual entry item will appear in the PPAP View at the item location that was specified and in the All Data View at the end of the matrix marked as ME in the Axis column.

Select CLEAR if you don't want to add the information entered in the Manual Entry fields to be added to the PPAP report. Select DONE to add the data in the Manual Entry fields to the PPAP report and exit the Manual Entry window.

Manual Entry Fields





Item Specification Information fields are used to display the blueprint information. The following fields are available:




Field	Description
ITEM	Can be either numeric (14), letters (A) or alphanumeric (14A).
SPECIFICATION	<p>Data entered can be either numeric or in the form of a feature control frame.</p> <p>When the Feature Control Frame button  is OFF you can enter numeric information only. For example 16.000</p> <p>When the Feature Control Frame button  is ON you can enter the GD&T Font Keyboard Input as required to build the Feature Control Frame. For example, if you type the following ;/d0.5m/A/B] the resulting feature control frame would be .</p>
SPEC. TYPE	<p>Used to specify the specification's type of measurement. For example, whether it is a diameter, dimension, radius, etc. You can type in the information or select from the drop-down list of available measurement types .</p> <p>Note: The TYPE field is not available when a Feature Control Frame has been generated in the SPECIFICATION field.</p> <p>Note: In the  Settings, the Spec. Type can be set to remain once Add is selected. Thus, you will not need to re-enter the same Spec. Type until the type has changed or you have exited the Manual Entry window.</p>
SPECIFICATION NOTE	Enter any additional blueprint information, such as how many places, is Basic, etc. that you want shown in the PPAP report. You can type in the information or select from the drop-down list of available specification note Comments  . The Specification Note field is limited to 8 lines of text.

<p>+TOL</p>	<p>Enter the positive tolerance for the specification (do not enter the + sign). Leave blank if a positive tolerance is not applicable.</p> <p>Note: The +TOL field is not available when a Feature Control Frame has been generated in the SPECIFICATION field. The tolerance is determined by the Control Frame.</p> <p>Note: In the  Settings, the +tolerance field can be set to remain the same once Add is selected. Thus, you will not need to re-enter the same tolerance until it has changed or you have exited the Manual Entry window.</p>
<p>-TOL</p>	<p>Enter the negative tolerance for the specification (do not enter the - sign). Leave blank if a negative tolerance is not applicable.</p> <p>Note: The -TOL field is not available when a Feature Control Frame has been generated in the SPECIFICATION field. The tolerance is determined by the Control Frame.</p> <p>Note: In the  Settings, the -tolerance field can be set to remain the same once Add is selected. Thus, you will not need to re-enter the same tolerance until it has changed or you have exited the Manual Entry window.</p>


Sample Results Information fields are used to display the sample measurement results.

The following fields are available:




Field	Description
<p>MEASUREMENT - SAMPLE #</p>	<p>Must be numeric and only one measurement result is allowed per input line.</p> <p>You can Insert/Add Measurement  input lines, Remove/Delete Measurement  input lines, Paste the measurement across all samples , and Group  the measurements.</p> <p>The number of samples available for data entry is determined by the number of CMM samples that were imported into PPAP Creator or by the number of samples defined in PPAP View or the All Data View.</p>



<p>MEASUREMENT NOTE - SAMPLE #</p>	<p>Enter any additional measurement information, such as the location the measurement was taken, is Basic, etc. that you want shown in the PPAP report. You can type in the information or select from the drop-down list of available measurement note Comments .</p> <p>The Measurement Note field is limited to 8 lines of text.</p> <p>If the measurement note is the same for all samples, you can Paste the measurement across all samples . If the measurement is to be paste across all samples for the entire report, click on the option in the settings to have the Measurement Note automatically paste across.</p> <p>Note: In the  Settings, the Measurement Note column can be set not to show.</p>
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Tool ID field is used to reference the tool used for the measurement being reported, thus allowing for traceability. The Tool ID field, for all measurements, is compiled and reported on the notes page of the PPAP report. To enter a tool identification, click the input box and enter the information or select from the drop-down list. The drop-down list retains the 10 most recently entered tool identifications.

Note: In the  Settings, the Tool ID can be set to automatically record the most recently entered Tool ID each time the Manual Entry window is opened.

Manual Entry Step-by-Step Example

1. Select the Manual Entry icon  to open the Manual Entry Window.
2. Double-click the blank Item field to activate edit mode (cell is yellow with a flashing cursor). Enter the applicable blueprint number (for example: 1) and select Tab to move to the next field.
3. With the cursor in the Specification field, enter the blueprint specification (for example: 16.000). If the specification is a GD&T feature control frame, select the Control Frame button  which allows you to build a feature control frame in the specification field. Once complete, select Tab.
4. In the Spec. Type field, either enter the measurement type or select from the drop-down list of the Specification Type button . For example: click the down arrow and select DIM. Note: If a feature control frame has been entered in the Specification field, the Spec. Type field is not available. Select Tab.

5. With the cursor in the Specification Note area, either enter the applicable note or select from the drop-down list available with the Comment button . For example: click the down arrow and select 4 Places. Select Tab.
6. In the + Tol field, enter the positive tolerance for the specification (do not enter the + sign). For example: enter 0.05. Note: Leave the field blank if a positive tolerance is not applicable.
7. In the - Tol field, enter the negative tolerance for the specification (do not enter the - sign). For example: enter 0.05. Note: Leave the field blank if a negative tolerance is not applicable.
8. Double-click the Measurement - Sample 1 field and click the Add Measurement button  to insert additional sample 1 measurement results fields. For example: click the Add Measurement button 3 times - a total of 4 measurement results fields are now available. Enter the first measurement result (for example: enter 16.012). Double-click on the next measurement results field, and enter the second measurement result. Continue in this manner until all four results have been entered. Enter the results for all other samples.

Manual Entry

Item Specification Information

Item	Specification	Spec. Type	Specification Note	+ Tol	- Tol
1	16.000	DIM.	4 PLACES	.05	.05



Sample Results Information

Measurement -- Sample 1	Measurement Note	Measurement -- Sample 2	Measurement Note
16.012	AT ITEM 23	16.025	AT ITEM 23
16.017	AT ITEM 24	16.019	AT ITEM 24
16.028	AT ITEM 25	16.033	AT ITEM 25
16.008	AT ITEM 26	16.024	AT ITEM 26


Control Frame: Off
 Grouping: None
 Measurement Count: 4
 Sample Count: 6

Tool ID: MIC 89689-25

Clear Add Done

9. Double-click in the Measurement Note area fields to enter any measurement specific notes to be reported in the PPAP, or select from the drop-down list from the Comment  button. For example: enter At Item 23. If the measurement note is the same across all samples, once the note is in the field click the Paste Across Samples  button, and the measurement note will be pasted in for sample 2, 3, etc.
10. To report traceability of the measurements, enter the measurement tool's identification in the Tool ID field. The tool id will be reported in the Notes page of the report.
11. Select ADD to insert the manual entry data into PPAP View. When you are finished entering the manual results, select DONE - this will close the Manual Entry window.

GD&T Font

GD&T feature control frames can be built using Transformation Software's GD&T font (TSGDT.ttf). When a field is set as the GD&T font, the keyboard keys will result in GD&T symbols rather than the letter/symbol typed from the keyboard. For example, a keyboard input of the greater than symbol (>) will result in the flatness symbol appearing ().

Feature Control Frame Example: Typing the following from the keyboard ;ld0.05mlA|Bs] will result in the following GD&T feature control frame ϕ 0.05 M A B S.

GD&T	Keyboard Input	GD&T	Keyboard Input	GD&T	Keyboard Input
	>	<u>A</u>	A	<u>Ø</u>	d
	"	<u>B</u>	B	<u>F</u>	f
	#	<u>C</u>	C	<u>L</u>	l
	\$	<u>D</u>	D	<u>M</u>	m
	%	<u>E</u>	E	<u>P</u>	p
	&	<u>F</u>	F	<u>S</u>	s
	'	<u>G</u>	G	<u>T</u>	t
	(<u>H</u>	H		
)	<u>I</u>	I		
	*	<u>J</u>	J		
	:	<u>K</u>	K		
	;	<u>L</u>	L		
	<	<u>M</u>	M		
	=	<u>N</u>	N		
	+	<u>O</u>	O		
	-	<u>P</u>	P		
	.	<u>Q</u>	Q		
		<u>R</u>	R		
	/	<u>S</u>	S		
<u>0</u>	0	<u>T</u>	T		
<u>1</u>	1	<u>U</u>	U		
<u>2</u>	2	<u>V</u>	V		
<u>3</u>	3	<u>W</u>	W		
<u>4</u>	4	<u>X</u>	X		
<u>5</u>	5	<u>Y</u>	Y		
<u>6</u>	6	<u>Z</u>	Z		
<u>7</u>	7	[[
<u>8</u>	8	\	\		
<u>9</u>	9]]		

Chapter 5

Saving, Printing & Exporting

**Saving the Matrix
Report Formats
Printing
Exporting to PDF**


Chapter 5: Saving, Printing & Exporting

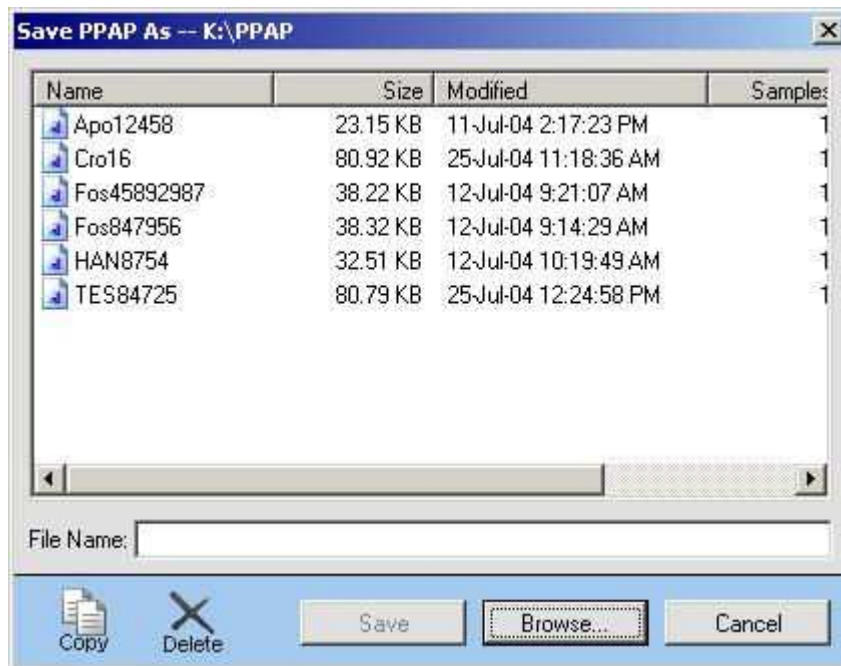
This chapter reviews how to save the PPAP Creator matrix you have generated, how to generate a QS CFG-1003 report or an ISO/IEC 17025 compliant report, how to print more than one sample results in the report, how to print and export the report to PDF.

Saving

The  Save button saves the current PPAP Creator matrix to a specified location.


To Save the current matrix:

1. Select the  Save button from the PPAP Creator tool bar.
2. Browse to the location the file is to be saved.
3. Enter a valid File Name.
4. Select the Save button.



Report Formats

The final PPAP report can be in the QS CFG-1003 or ISO/IEC 17025 compliant formats. The main difference between them is the ISO/IEC 17025 format incorporates a title page containing all the report information required by the standard.

To select a report format, select the  **Settings** icon from the PPAP Creator Tool Bar or select **Tools** - then **Settings...** from the menu bar. The Settings window opens. Click **Reports** in the left side tree view panel. The Reports settings are now visible. Select the appropriate Report Format and select Save.




Under Sample Count Print Format, select from 1 to 6 samples to be printed in the same report. Note: If a multi-sample format is selected, the screen will still show one sample on the screen, however, when the report is exported, the final report will show all samples side by side in the results column. To include the sample results comments column, click the selection box on (has a check mark). Note: This option is only available when printing up to 3 samples per report.

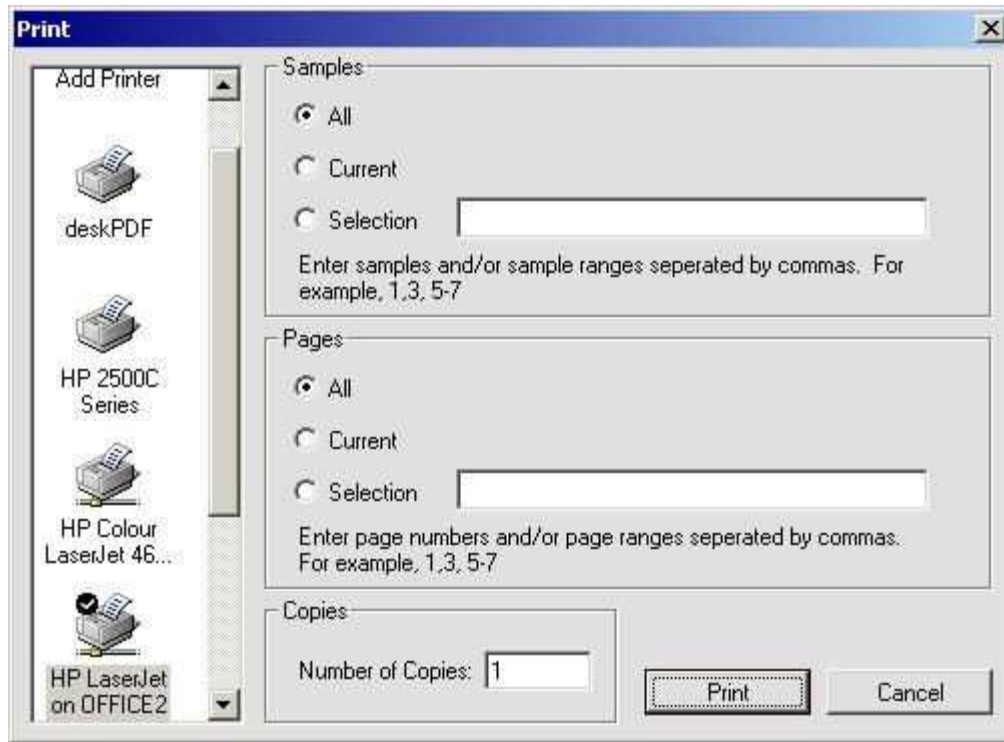
Accept/Reject Reporting	Select from either displaying an Asterisk (*) or Show Count in the OK and/or Reject column. Show Count records the number of accept and the number or reject samples for each item reported. For example, for a 6 sample report, the OK column might show 2 and the reject column 4.
Accept/Reject Selection	<p>This option is only available when you have selected the Asterisks option for Accept Reject Reporting.</p> <ul style="list-style-type: none"> • Select Show Both, if you wish an asterisk to appear in both the accept and reject column when the samples have both accept and reject status. • Select Mark reject if any sample out of tol., if you wish an asterisk to appear only in the reject column when any sample is detected as a reject. • Select Mark OK if any sample in tol., if you wish an asterisk to appear only in the OK column when any sample is detected as acceptable.

Printing

The PPAP report can be sent to the printer.

To print to the printer:


1. Click the  printer icon from the PPAP Creator tool bar or from the menu bar select File - Print. The Print window opens.
2. Select the printer to print the report to from the selection box on the left.
3. In the **Samples** area, select to print **ALL** the samples, just the **CURRENT** sample, or input a **SELECTION** of samples to be printed.
4. In the **Pages** area, select to print **ALL** the pages, just the **CURRENT** page, or input a **SELECTION** of pages to be printed for the selected samples.
5. In the **Copies** area, input the number of copies to be printed.
6. Select the **PRINT** button.



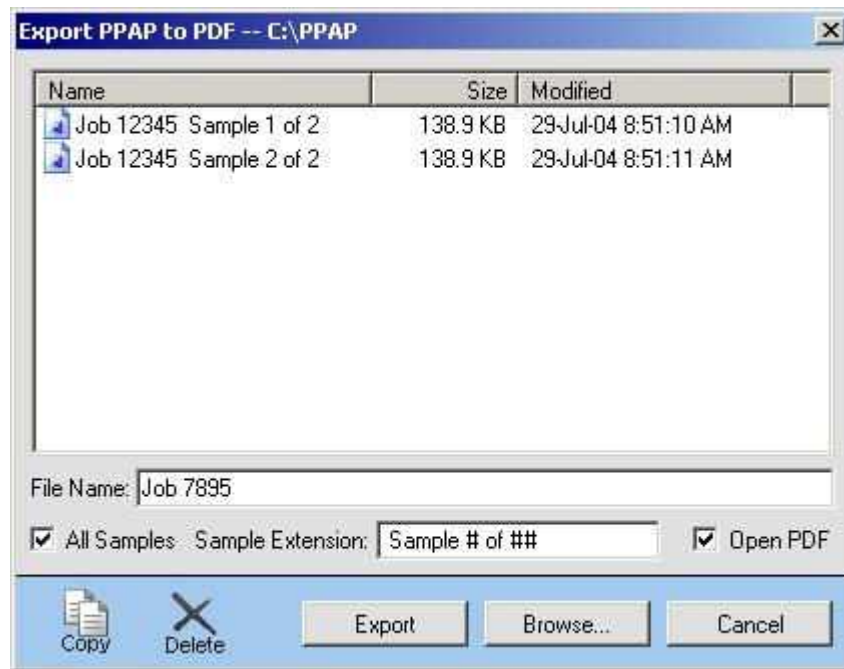
Export to PDF



The PPAP report can be sent to a PDF file.

To print to a PDF file:

1. Click the  **Export** icon from the PPAP Creator tool bar or from the menu bar select File - Export PPAP to PDF. The Export PPAP to PDF window opens.
2. Enter a file name in the **File Name** input box. For example Job 7895.
3. To export all samples, click the **All Samples** option box to on.
4. Each sample will create a PDF file. To uniquely identify the files add a Sample Extension. The default setting is Sample # of ##. The resulting files for this example would be Job 7895 Sample 1 of 2.PDF and Job 7895 Sample 2 of 2.PDF.
5. If you would like the first PDF file that is being saved to open once generated, click the **Open PDF** option box to on.
6. Select the **EXPORT** button.

Note: You can change the location the PDF file is being printed/saved to by selecting the Browse button.



From the Export PPAP to PDF window, you can make a copy or delete PDF files that have been created and saved. Just highlight the file from the file list and select the  **Copy** icon to generate a copy of that PDF file, or select the  **Delete** icon to delete the PDF file.