

What's new in



# PolyWorks DataLoop™ 2024

Data Management &  
Digital Connectivity Solutions



## Manage Vast Amounts of 3D Measurement Data Efficiently Using Cloud Storage

PolyWorks | DataLoop™ 2024 allows you to leverage the full benefits of cloud storage:

- ▶ Set up a highly scalable infrastructure that adapts instantaneously to your storage needs
- ▶ Replicate data files automatically across multiple data centers to ensure reliability
- ▶ Deploy a cost-effective storage solution without compromise



# Create Custom Web-Based Views of the 3D Measurement Database

Review 3D measurement results in a standard Web browser through our extensive set of standard and special-purpose widgets created within Excel:

- ▶ Display the 3D measurement results of one or multiple pieces horizontally
- ▶ Create an unlimited number of widgets within a dashboard
- ▶ Leverage Excel's extensive mathematical and charting functionalities

The screenshots show the following components of the DataLoop interface:

- Control View:** A 3D model of a metal part with various measurement points (Mounting hole 2, 3, 4, 5, 6, 7) and their corresponding SPC trends.
- Table:** A data table with columns for 'piece' and various measurement values. The table shows data for pieces 86 through 100, with some values highlighted in red to indicate issues.
- Line Monitoring:** A section titled 'Hole Position Trends' showing line graphs for different holes.
- Position Scatterplots:** Three scatterplots for 'Left hole 3', 'Left hole 4', and 'Right hole 6'.
- Top Ten Ppk Issues:** A table listing the top ten process performance issues.
 

#	Object	Control	Ppk	Mean	Range
1	Angle of circular slot	3D Angle 1	0.022	-0.496	0.198
2	Internal angle upper and lower flange	3D Angle 2	1.830	-0.747	0.594
3	Flange Thickness 2	3D Distance	3.236	-0.195	0.131
4	Step Height	2 Distance	5.405	-0.178	0.016
5	profile 4	A Rad	7.961	-0.199	0.056
6	profile 3	A Rad	13.282	-0.105	0.046
7	Flange Thickness 1	3D Distance	14.489	-0.109	0.037
8	profile 2	A Rad	15.112	-0.199	0.027
9	profile 1	A Rad	15.967	-0.160	0.030
- Ppk Analysis:** A summary table showing Ppk values for 13 items.
 

Ppk < 1	# / 13	%
1	1	8%
1 > Ppk < 1.33	0	0%
1.33 > Ppk < 1.67	0	0%
Ppk > 1.67	12	92%
- Documentation Slide Deck:** A slide titled 'Weekly Measurement Methodology and Performance Tracking Slide Deck'.
- Non-Conformance Report:** A report from MACHINING EXPERTS INC. with details like PSB Number: 16723.8, PA or TA Number: 5, DBS Number: 04720, and Report Number: 572.

# Detect and Resolve Manufacturing Issues as Soon as They Occur

The PolyWorks | DataLoop Web Interface facilitates your root cause analyses by quickly highlighting problematic trends and providing statistical analyses of association. With version 2024, you can:

- ▶ Determine whether your processes are in control and stable using our native capability analysis toolbox, which now includes normal probability plots
- ▶ Analyze the distribution of measurements compared to the expected values using a t-test to determine if the measurements are significantly different than expected

The screenshots show the following components of the web interface:

- Summary:** A notification stating: "The analysis detected a significant difference between the sample values and the target values for at least one factor category."
  - The test results should be accurate.
  - The samples are large enough to perform the analysis.
  - The factor Tooling # was analyzed.
  - A one-sample t-test was performed using a target mean value of 22.5681.
  - A one-sample standard deviation test was performed using a target standard deviation value of 0.0125.
- Normal Distribution Plot 1:** A histogram showing the distribution of factor values. The plot includes a normal distribution curve and a target value line. The text states: "The one-sample t-test found that there is a statistically significant difference between the sample mean of the factor (22.5633) and the target mean (22.5681). The one-sample standard deviation test found that there is no statistically significant difference between the sample standard deviation of the factor (0.0108) and the target standard deviation (0.0125)."
 

Stat	Value
Mean	22.5633
Target	22.5681
Std Dev	0.0108
Target Std Dev	0.0125
- Normal Distribution Plot 2:** Another histogram showing a statistically significant difference between the sample mean (22.5749) and the target mean (22.5681).
 

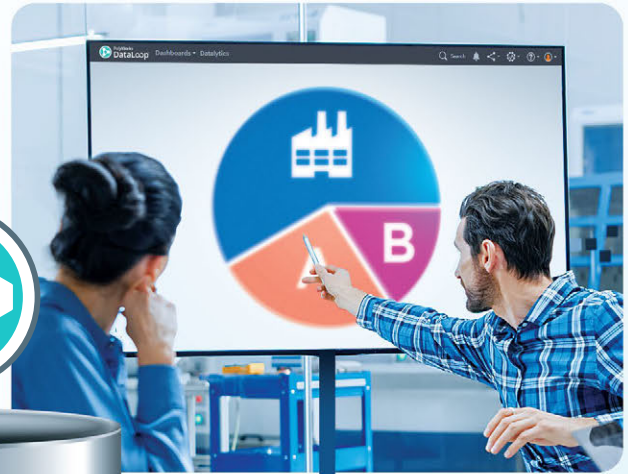
Stat	Value
Mean	22.5749
Target	22.5681
Std Dev	0.0097
Target Std Dev	0.0125
- Root Cause Analysis:** A section titled 'Analyze if the factor' with dropdown menus for 'Tooling #', 'Magnitude of measurements', and 'Gauge Measurements'.



# Precisely Configure Accesses to your Data Management System

Security policies allow manufacturing organizations to control who can access data and what can be done with it. Version 2024 allows PolyWorks | DataLoop users to:

- ▶ Implement data access policies by assigning distinct storage spaces to different departments, business areas, or external suppliers
- ▶ Define security policies efficiently by creating new policies based on existing ones and enriching them with specific permissions



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