

Introduction

QC-CALC Real-Time is used to collect and display measurement results from all CMMs, Video CMMs, and hand gages without operator intervention. Reports can be created and data can be exported to spreadsheets, databases, and other SPC programs. This means you can transfer data from all of your measurement devices to any SPC package using one program!

Our goal is to make data collection seamless regardless of the equipment purchased or software used.

Key Benefits

- Fully automatic data collection from over 200 types of machines
- View up to 1200 live plots (characteristics) while collecting data for many more
- Manual and automatic export capability to over 40 different output formats
- Manual and automatic report generation
- 21 CFR Part 11 compliance
- Trend detection with email alerts
- Dynamic filtering of characteristics
- Multiple gage output combined into one screen (MultiSource)
- True Position Charting with 2D position charts
- Flexible plots support I&MR, XBar & Range, Scatter, Whisker, and True Position Plots

Pinpoint On-Screen Information

The plots are interactive and can be interrogated for information and statistics using the mouse to target specific or multiple points.

Trend Analysis

The process can be monitored and reports automatically triggered as trends in the data occur. Operators can then be forced to assign causes and corrective actions.

Quick Stats

Calculations are updated in the Quick Stats panel instantly as points are highlighted and as the mouse moves from plot to plot.

Exporting

Data can be exported either manually or automatically by part interval to over 40 different output formats.

Reporting

Reports can be printed either manually or automatically by part interval or by exception event. Reports can be printed to the printer, preview, or any of several output file formats such as PDF. Reports can also easily be attached to emails allowing QC-CALC to notify the appropriate personnel when the process moves outside control, specification, or configurable limits.

Manual Input Screen

In addition to data collected from automatic inspection equipment, QC-CALC can prompt inspectors for additional measurements or trace data not available from the gage.

Assignable Causes

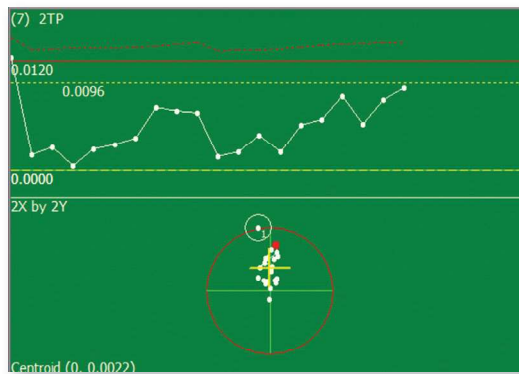
Indicate assignable cause variance by right-clicking on the plots and assigning a cause to your part.

Record Filtering

Quickly display and report on the data needed at the moment. Dynamic record filtering allows the filter to change automatically based on the part or user input just received.

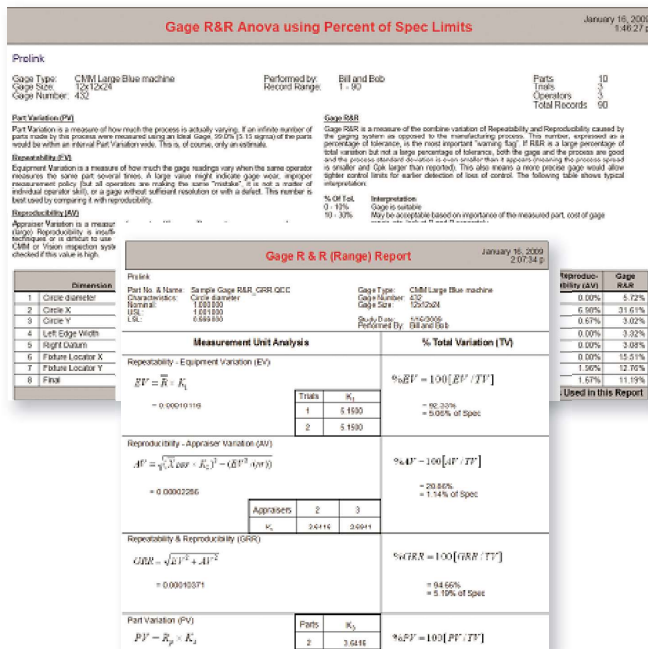
Live True Position Charts

Relationships can be created between the X, Y, Diameter, and True Position data coming from the inspection equipment to create a stacked true position plot. This unique chart depicts the true position with calculated MMC bonus in the top half and the 2D position relative to specification limits in the bottom half. The Cpk and centroid are also calculated and displayed for informational purposes.



Gage R&R Wizard

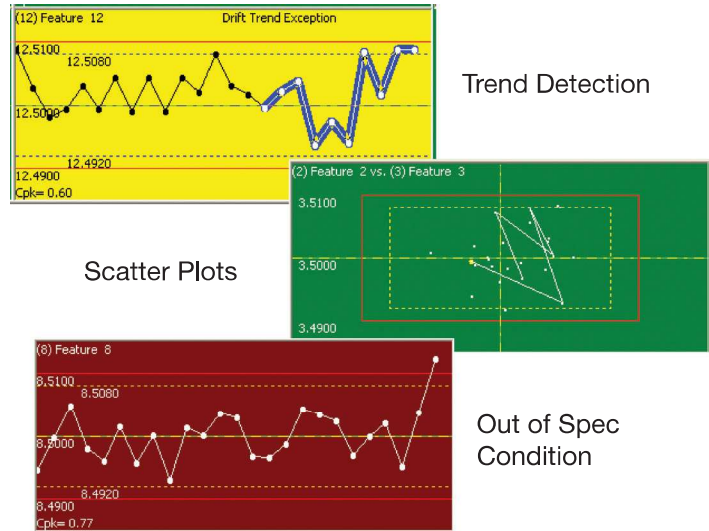
Inspection data is useless without first proving the reliability of the measurement system being used. A Gage Repeatability and Reproducibility (GR&R) study doesn't have to be a painful process. QC-CALC's Gage R&R Wizard guides users through the setup process, warns of potential problems, and analyzes the results via customizable reports.



Characteristic Filtering

Reduce on-screen clutter to quickly identify only the most critical features.

Plot Types



Trace Fields

A maximum of 60 additional trace fields can be captured in addition to the measurement data. This allows for more granular filtering when problems occur.

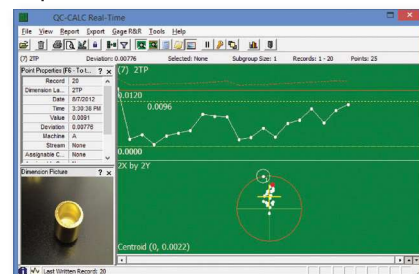
21 CFR Part 11

The control of inspection information as it applies to the medical industry is defined by FDA title 21 Code of Federal Regulations (21 CFR Part 11). QC-CALC's data collection, storage, and reporting adhere to this important standard. This option can be disabled for industries not requiring such strict control.

Data Integrity Report									
Printed on January 27, 2009									
Prolink									
SamplePart.Qcc									
The report lists all changes made to the raw QC-CALC file containing inspection data. All changes are documented and include the record number, user, and reason the change occurred.									
If you desire a report for a specific part, serial number, or other condition, please create a record filter to reduce this report. For example, you can create a date filter to see all changes made for a particular day or range of days. Likewise, you can search for a particular serial number and create a report for one part. See filtering data for more details.									
Rec	Date Performed	Action Performed	Feature or Document Location	Old Value or Action ID	New Value	User	Reason		
4	12/12/2008 1:28:29 PM	Dimension 1	Feature 1	1.4589	1.5000	Bruce	Bad measurement		
9	12/11/2008 1:29:01 PM	Num-factor 1	Cavity	1	2	Bruce	Remeasured Part		
14	12/11/2008 1:30:45 PM	Dimension 1	Feature 1	1.4673	1.5100	Bruce	Dirty Part		
22	1/2/2009 1:32:02 PM	Dimension 5	Feature 5	5.4500	5.4500	Jon	Bad measurement		
46	1/22/2009 1:32:39 PM	Dimension 5	Feature 5	5.4563	5.4500	Jon	Broken Gage		

Add Pictures to Each Characteristic

A picture can be added to each characteristic to give more meaning to the plot data.



Please download a 30-day trial version from our website and try it out!

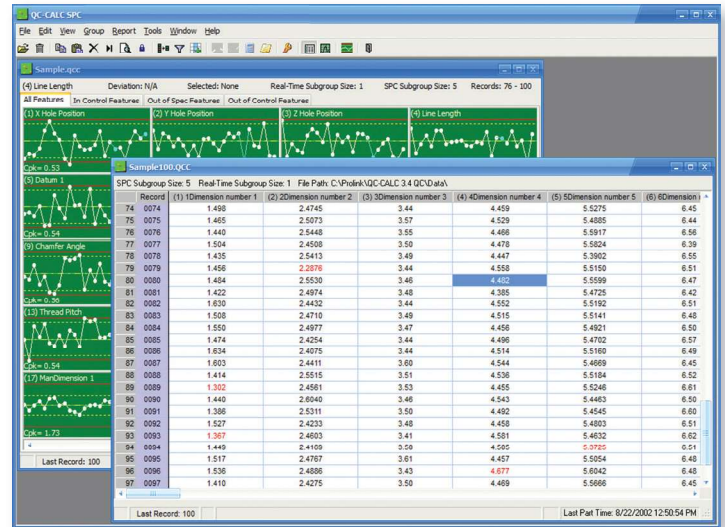
Prolink Corporation • 860.659.5928 • www.prolinksoftware.com

Introduction

QC-CALC SPC is a complete SPC package that analyzes the data collected by QC-CALC Real-Time. The wide variety of charts and reports available in QC-CALC SPC allows close monitoring of the manufacturing process in order to stay in control. In seconds, QC-CALC SPC gives a precise picture of how the production line is performing with easy-to-use menus.

Key Benefits

- Record and Characteristic filtering
- Control charts
- Process capability charts
- Attribute charts
- Ability to print to PDF and email reports
- Built-in report designer
- Remote Real-Time monitoring
- Multiple database grouping
- 21 CFR Part 11 compliance
- Built-in password protection



Reporting

Reporting in QC-CALC SPC analyzes the data and prints the charts to a printer, print preview, or to a file. The following report types are available:

Control Charts

- Xbar & Range
- Xbar & Sigma
- Median & Range
- Individual & Range
- Individual & Moving Range
- Moving Average & Range
- Bivariate Analysis Report

Process Charts

- Histogram Analysis
- Probability Plots
- Pareto Analysis
- Process Capability (Cpk)
- Raw Data w/ Outlier Detect
- Correlation & Regression

Attribute Charts

- P Chart
- Np Chart
- C Chart
- U Chart

Miscellaneous Reports

- Statistical Summary
- Raw Data
- First Article
- Non-Conformance
- Gage R&R (Range & ANOVA)
- 21 CFR Part 11 Audit Report

Record Filtering

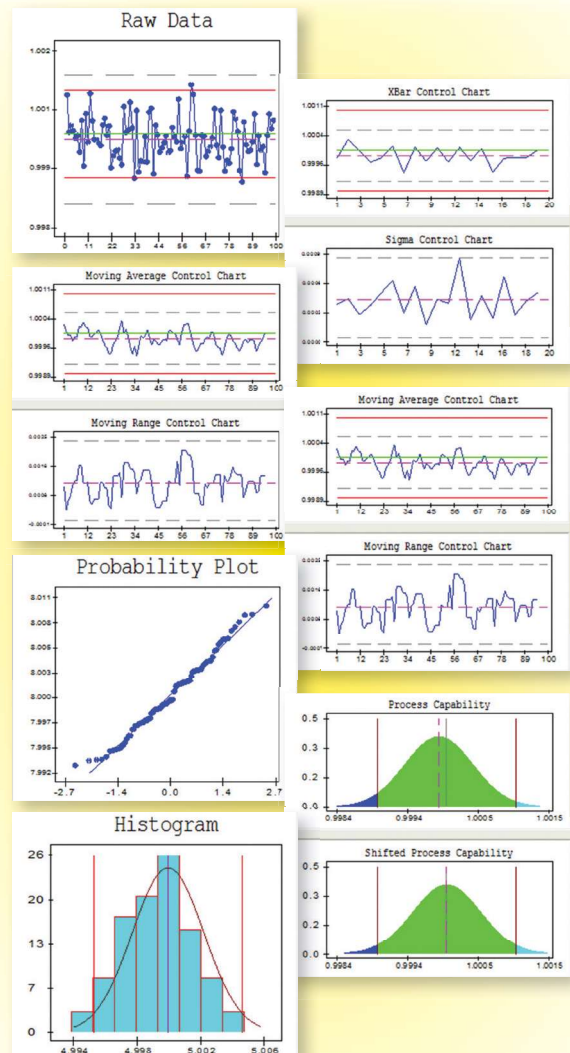
Quickly display and report on the data needed at the moment.

Characteristic Filtering

Reduce on-screen clutter to quickly identify only the most critical characteristics.

21 CFR Part 11 Compliance

The features that make QC-CALC so flexible can be controlled using the built-in Administrative Tool to guarantee total control of changes. This system includes an audit report showing all password protected changes.



Grouping

Create a concise summary report by opening multiple files simultaneously across different inspection equipment. Each file can be displayed in a spreadsheet or as plots, similar to QC-CALC Real-Time.

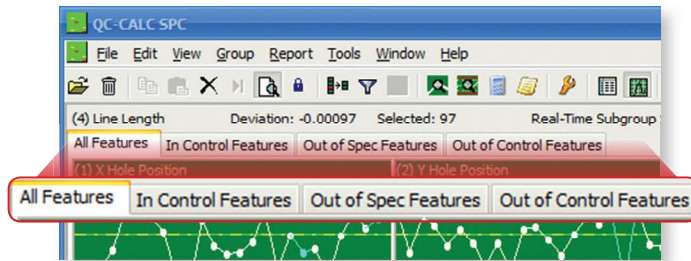


Monitoring

As the CMM runs, QC-CALC Real-Time is updating its live screen while QC-CALC SPC displays the same data in another location (remote office, machining center, etc...). Monitor a single file, a group of files, or the inspection machine itself and see the data in either live plots or in grid form.

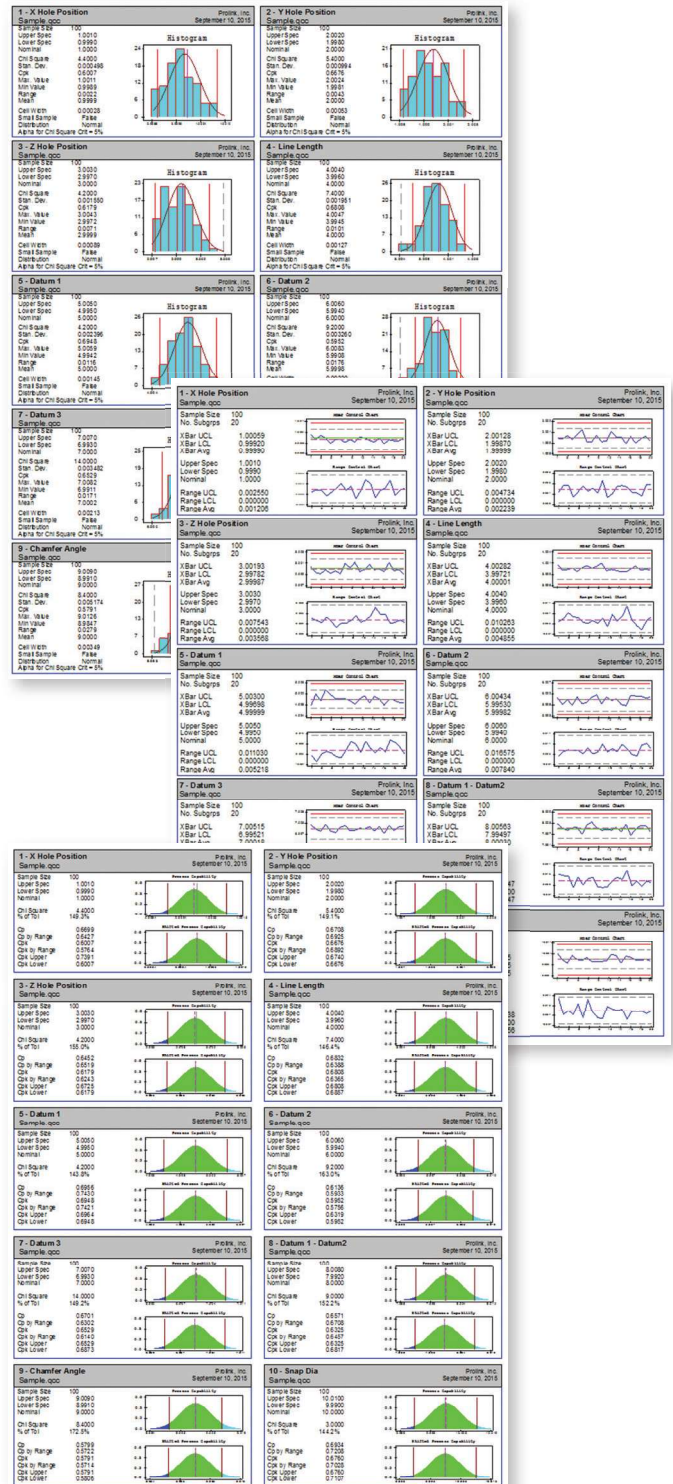
Tabs in Plot View

When using the Plot View option, multiple tabs are available to quickly switch between the dynamic Characteristic Filters.



Multiple Characteristic Reporting

Due to the large number of characteristics that can be saved in each file a secondary option is available for the reports within QC-CALC SPC. Using the Multiple Plots option provides a brief overview of the statistics for each characteristic along with the corresponding graph for that report type.



For more information, contact us at sales@rfminc.net

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