Wonderware
by **Schneider** Electric

Wonderware QI Analyst

Statistical Process Control (SPC) for shop floor operations

Wonderware® QI Analyst™ software gives manufacturers the ability to monitor product quality and process variation in real time. Using powerful SPC analysis techniques, plant operators and decision-makers can make immediate online adjustments to proactively ensure product quality and consistency. The software gives your production team the information and notifications it needs to keep production quality under control and optimize processes to improve your plant's business performance.

Summary

Wonderware QI Analyst provides a SPC software system with real-time data collection from shop floor systems and data sources that empower your operational team to safeguard quality, reduce variation and deliver predictable product quality and plant performance.
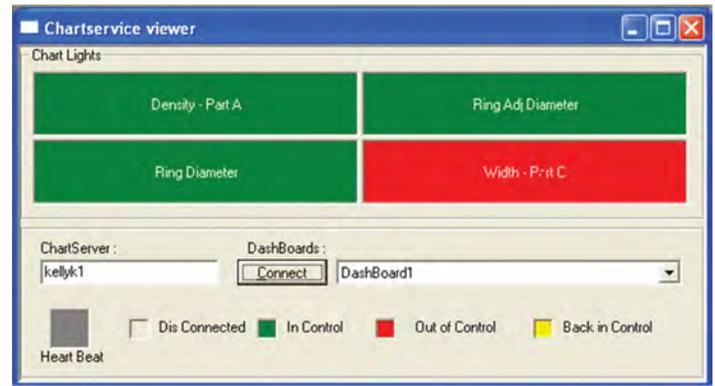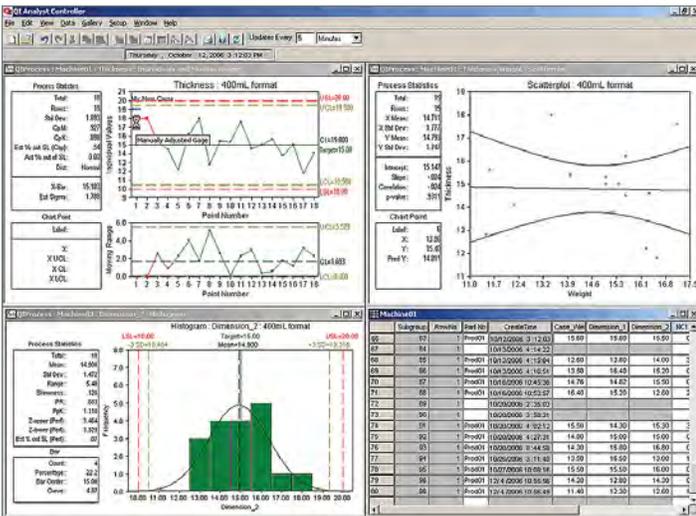
Business Value

QI Analyst software can help you to reduce cost related to scrap, rework and quality giveaway and improve customer satisfaction through consistent quality. Its SPC trend rules "predict" problems and trigger corrective actions before they cost you time and money.

Wonderware QI Analyst software connects your entire operational team with near real-time Statistical Process Control (SPC) information, enabling everyone to proactively reduce process variations and nonconformance instead of reacting to them after the fact. It provides operators the quality information they need to positively affect product quality and plant profitability.

A comprehensive selection of SPC tools

QI Analyst software automatically tests real-time process data against statistical rules to detect trends, runs, patterns and outliers. You're never more than a glance or an alarm away from critical information. In addition, the software can leverage historical data from most data sources within the plant.

A large library of statistics can be displayed for the overall process, or for any individual process parameter – aiding in continuous improvement efforts.

Standard SPC charts included in QI Analyst software:

Variable Charts:

+ X-bar and Range or Sigma

+ X-individual and Moving Range

+ Moving Average and Range or Sigma

+ Cumulative Summation of Means or Individuals
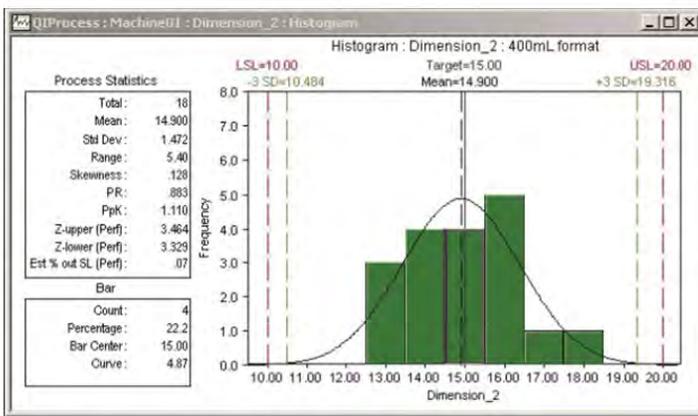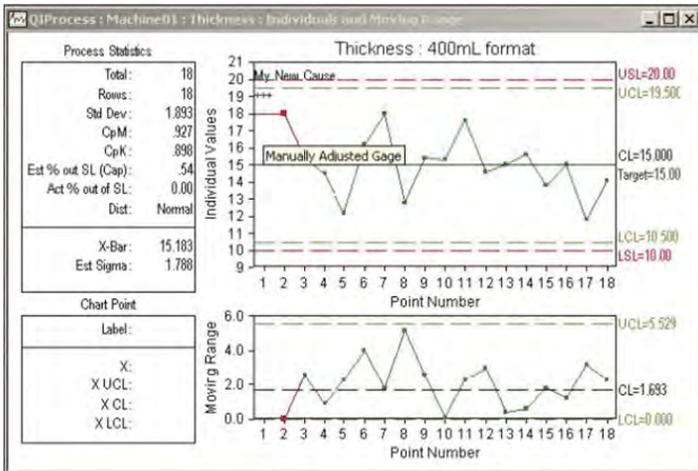
+ EWMA of Means or Individuals

Attribute Charts:

+ p, np, c, and u

+ Defects Per Million Opportunities (DPMO)

Special Charts and Analysis Tools:

+ Run

+ Histogram (data distribution)

+ Scatter plot (correlation between characteristics)

+ Paretos

When a rule violation occurs, QI Analyst software immediately charts the point in red. Integration with Wonderware InTouch HMI and Application Server's alarm management features alert you whenever key data goes out of specification so you can start solving quality problems immediately.

View SPC charts from anywhere

QI Analyst's Chart Service, a Microsoft® Windows® service, automatically monitors your process data and reports on alarm status via an alarm dashboard. This control can be embedded in an HMI, like Wonderware InTouch® or a customized industrial application to automatically communicate SPC alarm status.

Tailor statistical rule sets to fit your needs

A number of industry-specific rule sets are delivered with QI Analyst software, including Western Electric, AIAG, Juran, Hughes, and Gitlow & Duncan. These rule sets automatically detect process excursions for a host of different industries. QI Analyst software also facilitates the modification of supplied rule sets or you can design your own rule sets to achieve the most precise statistical analysis of your unique processes.

Plant systems integration

The tighter integration of QI Analyst software with Wonderware InTouch, Wonderware Historian and the Wonderware System Platform enhances your system capabilities and increases the return on investment.

Virtually any open process database and OPC item that's accessible on your plant or enterprise network can be used as a data source by QI Analyst software. As a result, the majority of your plant's sources can be tapped for valuable SPC monitoring and analysis.

Support for regulated industries

Regulated industries have special recordkeeping requirements. QI Analyst software provides audit trails for changes in parameters, alarms and data, and supports Windows Integrated Security to facilitate compliant implementations.

Specifications:

QI Analyst software consists of:

QI Analyst Controller

A full-featured desktop application for all SPC activities (data entry, charting, statistical calculations, rule evaluations and alarming), with complete set up, configuration and administration capabilities. The Controllers are recommended for Power Users, Quality Engineers and Administrators.

QI Analyst Workstation

The workstation enables all SPC activities like data entry, charting, statistical calculations, rule evaluations and alarming, typically used on the plant floor for quality monitoring.

Technical Specifications:

Operating Systems

Wonderware QI Analyst software supports the Microsoft Windows platform, including:

+ Windows 7 Professional, Enterprise, or Ultimate Edition (32-Bit and 64-Bit)
+ Windows 8.1 Professional or Enterprise Edition (32-Bit and 64-Bit)
+ Windows 10 Professional or Enterprise Edition (64-Bit)
+ Windows Server 2008 R2 Standard or Enterprise Edition (32-Bit and 64-Bit)
+ Windows Server 2012 Standard or Data Center Edition (64-Bit)
+ Windows Server 2012 R2 Standard or Data Center Edition (64-Bit)

Database Technology

Wonderware QI Analyst software supports the following databases:

+ Microsoft SQL Server 2008 R2 Express (32-Bit)
+ Microsoft SQL Server 2008 R2 in Standard or Enterprise Edition (32-Bit and 64-Bit)
+ Microsoft SQL Server 2012 Express (32-Bit)
+ Microsoft SQL Server 2012 in Standard or Enterprise Edition (32-Bit and 64-Bit)
+ Microsoft SQL Server 2014 Express (32-Bit)
+ Microsoft SQL Server 2014 in Standard or Enterprise Edition (32-Bit and 64-Bit)
+ Microsoft SQL Server 2016 in Express, Standard or Enterprise Edition (64-Bit)
+ Oracle 11g R2
+ Oracle 12c

For more information on Wonderware QI Analyst software please contact your local Wonderware distributor, or visit:

wonderware.com/manufacturing-operations-management/qi-analyst

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