Analytic Solutions for Manufacturing Intelligence
TIBCO Statistica provides global quality solutions for data management, process monitoring, process optimization, and supplier quality tracking

BENEFITS

- Identifies critical factors in complex processes to focus monitoring and control efforts where they have the most impact
- Optimizes manufacturing processes with predictive models for ensuring the best and most cost-effective product quality outcomes
- Enables easy creation and deployment of rules
- Improves decision-making and increases productivity

"Excellent service, support, and broad-based statistical analysis capability were the major advantages that Statistica had over others considered. The decision to select Statistica was unanimous."

—Navaid Ahmed, Quality Engineer, Deere & Company

Manufacturing is a complicated business. You have to manage complex supply chains, meet strict schedules, and comply with a wide range of regulations. You strive to keep costs in check by reducing repairs and replacements and by streamlining everything from R&D to production. At the same time, you must keep quality high or risk losing customers to an ever-growing global list of competitors promising they can do better.

Therefore, you need analytics that is fast, straightforward, and integrated with your data repositories so it can be applied on an ongoing basis for continuous process improvement. Statistica delivers all the analytics and automation you need — in a single software platform. With real-time monitoring and alarm notification for the production floor, a comprehensive set of analytical tools for engineers, and sophisticated reporting features for management, TIBCO Statistica™ keeps you ahead of your competitors by streamlining processes, improving product quality and safety, and reducing expenses. Moreover, Statistica is personalized and secure, delivering the workflows and dashboards appropriate for the specific roles and responsibilities of each person in your organization.

Root cause analysis, process optimization, monitoring, and predictions Statistica empowers you to quickly identify the key factors in your processes that have the most impact on product quality and cause scrap and rework—so you can focus your monitoring and control efforts where they matter the most. Performing "what if" scenarios with Statistica predictive models reveals how process parameters interact, so you can establish optimal ranges for critical variables and implement process monitoring with precision and confidence.

Manufacturing dashboards allow users to monitor critical parameters and drill down for root cause analysis.

Statistica enables you to easily compose, test, and deploy decision rules to implement monitoring in a wide range of areas, including:

- Suppliers: Configure materials, parts, and specifications for each supplier, and allow suppliers to upload data so you can monitor, aggregate, and centralize it.
- Maintenance: Predict impending machine failures and prioritize maintenance issues.
- Quality initiatives: Integrate Statistica in formal quality control and Six Sigma programs.
- Warranties: Set parameters and determine repair rules to reduce warranty service costs.
- Compliance: Meet ICH and U.S. FDA guidelines with customizable monitoring tools (such as Stability and Shelf Life Analysis) that employ enterprise-wide, role- based security.

The Monitoring and Alerting Server (MAS) enables the monitoring of hundreds or thousands of critical parameters and proactively notifies pre-defined recipients of emerging issues.

FEATURES

KPI DASHBOARDS

Statistica enables you to deliver relevant information directly to the stakeholders — everyone from the shop floor to management — by configuring personalized, web-based dashboards of key performance indicators (KPIs). Users can drill down to details of throughput metrics, tracking of rework and scrap, Cpk/Ppk data, Pareto charts of defects, and more.

DEFECT DETECTION AND ALERTING

Multivariate statistical process control (MSPC) methods enable you to find anomalies (such as quality problems) in high-dimensional data that otherwise would not be visible. Statistica can even automatically alert you when a process is predicted to be "out of control."

PRODUCT TRACEABILITY

Many manufacturing processes involve a complex sequence of unit operations, with interactions between upstream and downstream processing, raw materials, media, and instrumentation. Statistica empowers you to easily review the movement of materials and batches through these steps so that you can perform meaningful qc-charting, reporting, root cause analysis, and more.

AUTOMATED DECISION-MAKING

The embedded Rules Builder makes it easy to compose, test, and deploy decision rules to implement monitoring across different processes and product lines, enabling you to quickly improve decision-making and increase both productivity and profitability.

COMPONENTS

Statistica analytic solutions for manufacturing include:

EXPERT MANUFACTURING

Provides powerful predictive analytics, multivariate statistical process control, process optimization, quality control, root cause analysis, and design of experiments.

ENTERPRISE SERVER

Delivers analytic and business intelligence applications to departments and divisions within the enterprise via centrally managed queries, analysis and report templates, and dashboards.

DATA ENTRY

Enables easy configuration of data entry scenarios for each unit operation of your processes, with integrated workflow/approvals and analytics

MONITORING AND ALERTING SERVER (MAS)

Enables automation of the continual monitoring of hundreds or thousands of critical process and product parameters and proactively notifies pre- defined recipients of emerging issues.

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TIBCO fuels digital business by enabling better decisions and faster, smarter actions through the TIBCO Connected Intelligence Cloud. From APIs and systems to devices and people, we interconnect everything, capture data in real time wherever it is, and augment the intelligence of your business through analytical insights. Thousands of customers around the globe rely on us to build compelling experiences, energize operations, and propel innovation. Learn how TIBCO makes digital smarter at www.tibco.com.