

Analytic Solutions for Manufacturing Intelligence

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 to
- 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 are fast, straightforward and integrated with your data repositories so they 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, 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’s 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.

Customer portal

Statistica enables you to give external customers and internal stakeholders secure, role-based web access to review reports as they choose. This not only saves you time and money but also delivers transparency into your manufacturing operations, differentiating you from your competitors.

Data entry and management

Easily configure data entry scenarios with double-blind validation for field personnel who need to manually input data. Setup workflows to automatically integrate with your enterprise systems.

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

About Statistica

Statistica’s advanced analytics, big data and IoT offerings provide you endless possibilities to innovate your enterprise. Whether it’s uncovering the genetic basis of a disease, reducing hospital readmissions, mitigating financial risk, or ensuring procedural validation, Statistica enables organizations to transform in new and exciting ways. By embedding analytics everywhere and empowering a wider community of citizen data scientists, you’ll accelerate innovation, improve customer experiences, and streamline your enterprise for the future. <http://statistica.io>