APPLICATIONS

- Apply multivariate statistical methods quality control, predictive modeling, and data reduction to complex manufacturing processes.
- Determine the most critical process, raw material, and environmental factors and their optimal settings for delivering the products of the highest quality.
- Monitor the process characteristics interactively or automatically during production stages rather than waiting for final testing.
- Build, evaluate, and deploy predictive models based on the known outcomes from historical data.
- Utilize techniques for process industries and batch-oriented manufacturing such as pharmaceutical, chemical, petrochemical, and pulp and paper manufacturing.

MODES OF WORK

STATISTICA Provides the Complete Solution:

**Offline Analyses**
- Historical analysis, data exploration, data visualization, predictive model building and evaluation, model deployment to monitoring server

**Online Analyses**
- Interactive monitoring with dashboard summary displays and automatic-updating results.
- Automated monitoring with rules, alarm events, and configurable actions.

PROCESS ANALYTICAL TECHNOLOGIES

STATISTICA is the Analytics Software Platform for PAT Applications

- Wealth of multivariate techniques including partial least squares, principal components, neural networks, recursive partitioning (tree methods), support vector machines, independent components analysis, cluster analysis, and more.
- Platform provides user access control and permissions, audit trails, data connectivity, central configuration and maintenance, Web-based user interfaces, and Part 11-relevant features.
- STATISTICA is optimized for deployment for validated applications. Validations packages (IQ/OQ/PQ) and services are available.

StatSoft offers a large selection of desktop and web enabled enterprise-wide solutions for manufacturing and other applications, supported with consulting and training services by a network of 30 offices on all continents.
ANALYTIC CAPABILITIES

- Partial least squares
- Principal components
- Cross-validation
- Recursive partitioning methods (trees), including C&RT, CHAID, Stoichiastic gradient boosted trees, and random forests
- Neural networks
- Independent components analysis
- Support vector machines
- Nonlinear feature selection
- Design of experiments
- Cluster analysis
- General linear models
- Curve-fitting
- Graphical data analysis with exploratory brushing

PLATFORM CAPABILITIES

- Central configuration and administration of data
- Connections queries, analyses, and reports
- Web browser-based user interfaces
- Document management, audit trails
- Report templating and generation
- Wide range of graphical data analysis techniques, offline and online methods of use with auto-updating analyses
- Automated, server-based monitoring of parameters
- Data management: Data verification, cleaning, merging, etc.

DATA ACCESS AND QUERYING

- Comprehensive tools for defining queries to your data repositories
- Central configuration and management of connections and queries
- Access control and permissions mange access to data for specific users and groups