Professional Edition

statgraphics®
centurion XVI
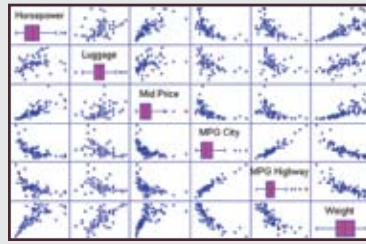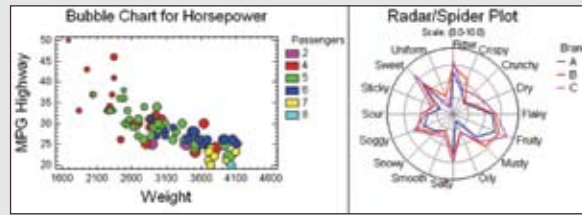### www.statgraphics.com

STATGRAPHICS lets you make sense of it all…

Scatterplots
X Plot
X-Y Plot
Multiple X-Y Plot
Polar Coordinates Plot
X-Y-Z Plot
Multiple X-Y-Z Plot
Spherical Coordinates Plot
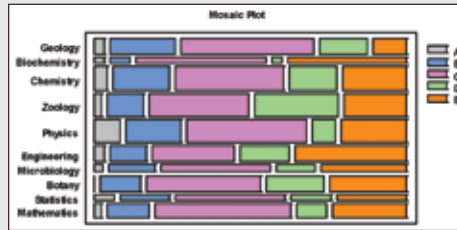Matrix Plot

Matrix Plot

Exploratory Plots

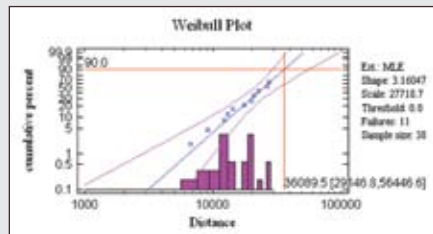*Bubble Chart*   *Spider Plot for Comparing Attributes*

Describe
Multivariate Methods
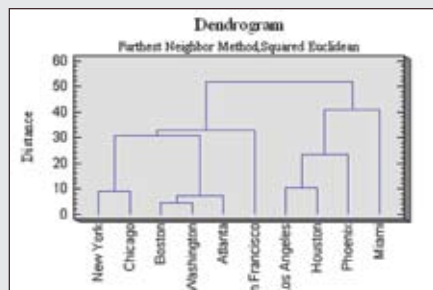Principal Components
Factor Analysis
Numeric Data
Categorical Data
Hypothesis Tests
Weibull Analysis
Canonical Correlations
Cluster Analysis
Distribution Fitting
Life Data Analysis
Multiple-Variable Analysis

Mosaic Plot from Crosstabulation

Weibull Plot from Life Data Analysis

Dendrogram from Cluster Analysis

Tools
Expression Evaluator
Sample Size Determination
    One Sample
    Two or More Samples
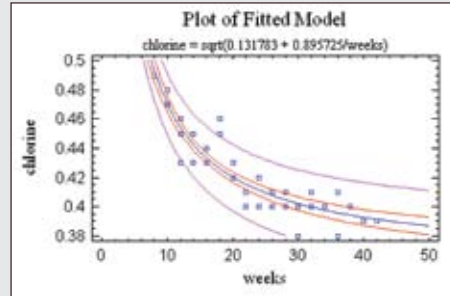Control Chart Design
Six Sigma Calculator
Screening Design Selection

Compare
Two Samples
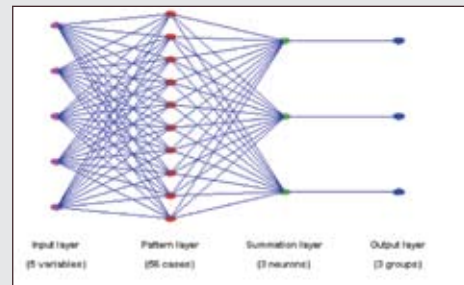Multiple Samples
Analysis of Variance
    General Linear Models

Relate
Single Factor
Attribute Data
Classification Methods
Multiple Factors
Life Data

Fitted Nonlinear Regression Model

Neural Network Diagram from Bayesian Classifier

Forecast
User-Specified Model
    Box-Jenkins ARIMA Models
    Trend Models
    Simple Exponential Smoothing
    Brown's and Holt's Linear Smoothing
Automatic Model Selection

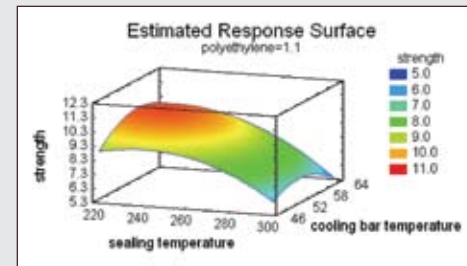## SnapStats
Capability Assessment
Gage R&R
Automatic Forecasting

Design of Experiments
Design Creation
    Screening Designs
    Response Surface Designs
    Mixture Designs
    D-Optimal Designs
Design Analysis
    Analyze Design
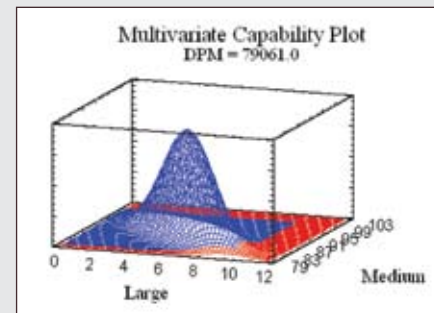   Multiple Response Optimization

Surface Plot from Analyze Design

Statistical Process Control
Quality Assessment
    Pareto Analysis   QFD Matrix

Capability Plot from Multivariate Capability Analysis

Capability Analysis
    Variables
    Multivariate Capability
    Attributes
Control Charts
    Attributes
    Variables
Time-Weighted Control Charts
    Moving Average Charts
    EWMA Charts
    CuSum Charts (V-Mask & Tabular)
Multivariate Control Charts
Special Purpose Control Charts
Gage Studies
    Variable Data
    Gage Linearity and Accuracy
    Attribute Data
Acceptance Sampling
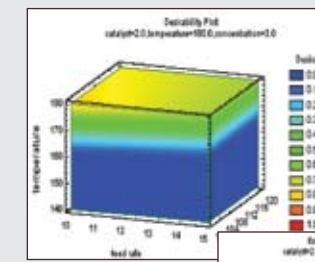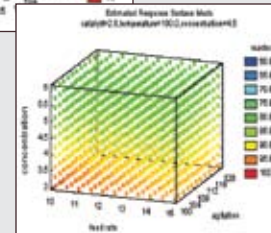   Attributes & Variables

Design of Experiments Wizard
The Experimental Design section of STATGRAPHICS contains a new wizard that assists users in constructing and analyzing designed experiments. It guides the user through twelve important steps in the creation of the design:

- Define responses
- Select design
- Select runs
- Save experiment
- Optimize responses
- Augment design
- Define exp. factors
- Select model
- Evaluate design
- Analyze data
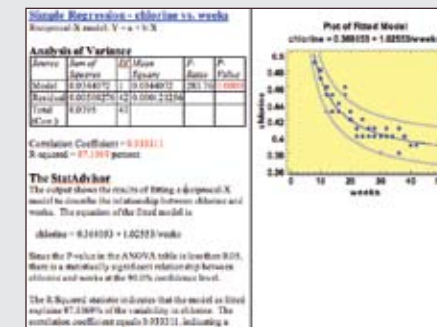- Save results
- Extrapolate

StatFolios™
Do you get tired of doing the same thing over and over again? With StatFolios, you won't have to. You can save your analyses to rerun them whenever you want.

StatFolio Alerts
StatFolios may be set to automatically generate alerts whenever certain conditions occur. Message boxes, audio alarms, and automatic e-mail notification are available options.
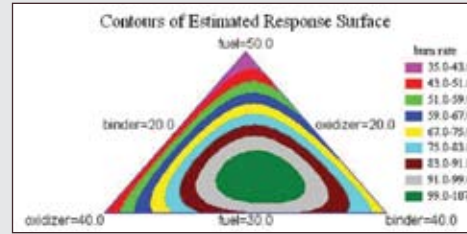

StatAdvisor™
If you're not a professional statistician, you'll love the StatAdvisor. Whenever statistical results are displayed, the StatAdvisor will craft a paragraph or two interpreting the results. If you like, you can copy and paste the interpretations directly into your reports.

Interactive Exploration of Response Surface and Contour Plots
Response surface and contour plots can be explored interactively. Sliders change the levels of the variables in the underlying statistical model, which is immediately reflected in the plot. Ascend and Descend buttons instruct the program to move in steps along the path of steepest ascent, which causes the surface or contour plot to change dynamically.

Interactive 3D Rotation
When a 3D graph is maximized, scrollbars are now placed below and to the right of the graph. The scrollbar at the bottom allows the user to interactively rotate the graph left or right. The scrollbar at the right rotates the graph up or down.
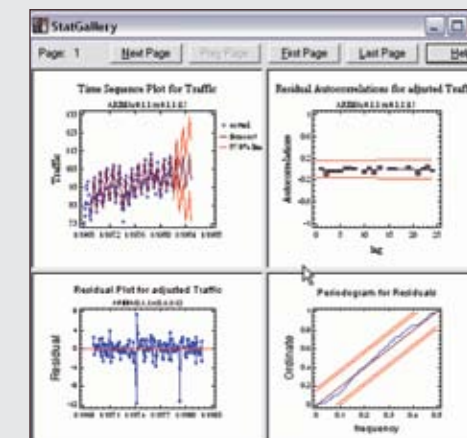
StatWizard™
The StatWizard has been developed to assist you in selecting the proper analyses for your data. You begin by specifying the columns containing the data to be analyzed. The StatWizard then:

- Suggests analyses appropriate for that type of data.
- Offers to transform one or more of the variables.
- Helps you select a subset of the data if desired.
- Repeats the analyses for every level of a "BY" variable.

StatGallery™
The StatGallery allows you to take graphics created in different procedures and arrange them side by side on a single page. You can also overlay two graphs on top of one another to create displays even our developers never dreamed of.
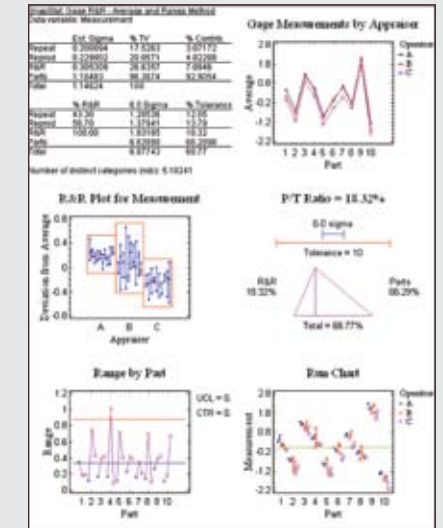
Pan and Scroll
A new icon has been added to the toolbar in the shape of a magnifying glass that allows users to zoom in on a graph and then scroll and pan. This is particularly helpful when displaying a large number of data points.

SnapStats™
When you need to do a common statistical analysis, SnapStats provide a quick way to produce a single page of preformatted output. Just enter the names of the columns with your data, click OK, and you're done.

StatReporter™
When analyzing data, it is important to share your results with everyone involved in the decision-making process. The StatReporter is designed to assist you in creating presentation-quality reports within STATGRAPHICS Centurion. You can take any table or graph created in the program and paste it into the StatReporter with a simple click of the mouse. Better yet, you can paste link the output so that the reports will automatically update whenever the source data change.

StatPublish™

When you're ready to disseminate your results throughout the entire organization, use StatPublish to create HTML output that can be viewed with any web browser.

You can also automate the entire analysis and publishing process by creating a script that you can launch at a fixed time every day.
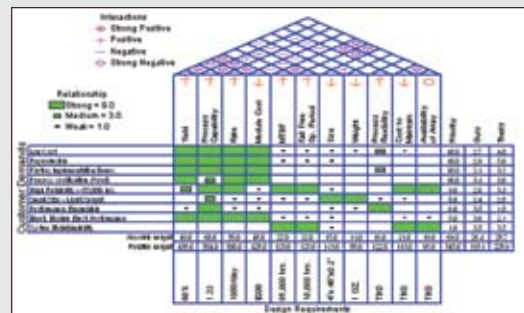
StatLink™

If you repeat the same analyses frequently, then StatLink is for you. It allows you to:

(1) Link a STATGRAPHICS StatFolio to one or more data sources. When the StatFolio is loaded, the data sources are queried and all analyses are updated.

(2) Automatically poll the data sources at a predefined increment of time. Combined with StatPublish, you can set up STATGRAPHICS to automatically maintain output on a web server.

Six Sigma Menu

The Professional Edition of STATGRAPHICS Centurion XVI is ideal for use in Six Sigma projects. The program includes:

(1) An optional Six Sigma menu that arranges the statistical procedures according to the DMAIC paradigm (Define, Measure, Analyze, Improve, and Control).

(2) A complete set of Six Sigma management tools, including cause-and-effect diagrams, QFD matrices, Pareto charts, and process maps.

(3) Capability analysis for both variables and attributes.

(4) Gage studies following the latest AIAG guidelines.

(5) Design of Experiments and all of the other statistical modeling tools you need to improve the quality of your goods and services.

STATGRAPHICS® Centurion XVI
is supported by a team of professionals dedicated to insuring that you get the most out of the program.

STATGRAPHICS Centurion XVI
features more than 160 statistical procedures for:

- Exploratory data analysis
- Regression and analysis of variance
- Distribution fitting
- Statistical process control
- Design of Experiments
- Six Sigma
- Reliability and life data analysis
- Time series analysis & forecasting
- Multivariate methods
- Nonparametric techniques
- Visualization

Documentation
- **STATGRAPHICS Centurion XVI** comes with a more than 280-page on-line User's Guide containing seven tutorials, and PDF documents describing each of the statistical procedures. A context-sensitive help system allows you to search for topics by name or keywords. Additional resources are available on the web, where we post information such as Frequently Asked Questions and notices about new updates to the program.

Training
- **StatPoint Technologies, Inc.** and its international dealers conduct both public and on-site seminars covering the use of **STATGRAPHICS** for statistical analysis. The seminars are suitable for both new and advanced users.

Validation
- Before release of each new version, extensive tests are performed to insure that the program operates properly. For users needing to validate the statistical results for regulatory agencies, we will be happy to cooperate in providing information about our software development and testing procedures.

Technical Support
- **StatPoint** and its dealers are dedicated to providing you with first-class technical support. You'll find our support specialists to be highly knowledgeable about both STATGRAPHICS and statistical methods.

System Requirements
- **STATGRAPHICS Centurion XVI** runs on a Pentium or equivalent computer with at least 512 MB of RAM, Windows 98 or later, a mouse, a CD-ROM drive, and access to at least 100 MB of available disk storage.

How to Get STATGRAPHICS
- A trial copy of **STATGRAPHICS Centurion XVI** can be downloaded from www.statgraphics.com. You will also find an order form and a list of international dealers at that site.

Introducing the *NEW* STATGRAPHICS Centurion XVI

"KNOW WHERE TO FIND THE INFORMATION AND HOW TO USE IT – THAT'S THE SECRET OF SUCCESS"
— ALBERT EINSTEIN

six sigma | anova | regression | spc | doe | forecasting | visualization | reliability

TAKE CONTROL OF YOUR BUSINESS…

Today's challenges are great, so reaching the highest goals requires solid strategies. Achieving the success you seek demands powerful, intuitive, smart analytical tools that make the difference between merely surviving and out-performing competitors as well as your own expectations. Since 1980, STATGRAPHICS® has been providing thousands of prominent companies worldwide with these tools, saving them billions and boosting revenue. Computational brainpower and guidance functionalities have been elevated to new heights in *STATGRAPHICS® Centurion XVI*. It delivers unmatched solutions for easily understanding the predictive properties of your data and insight for acting upon them for improvement in every aspect of your business.

The **NEW STATGRAPHICS® Centurion VERSION XVI** is packed with added features and superior value. Make sense of your data, identify costs and alternatives, drive increased profitability, improve processes and **take control of your business.**

THE UNIVERSE WILL HAVE FEWER SECRETS…

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centurion **XVI**

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