Minitab 15 ™
Statistical Software

THE LEADING PACKAGE FOR STATISTICS EDUCATION WORLDWIDE

Encouraging Excellence

As a dedicated instructor, you want to give your students the highest quality education possible – a firm grasp of the concepts you are teaching and a set of skills and experiences that will be attractive to prospective employers.

Minitab is the package of choice at more than 4,000 colleges and universities around the world.

Minitab 15 is the ideal statistical software to help you achieve your goals because it is:

- **Easy to use** – Minitab leverages your students' existing software skills and has a highly intuitive interface designed to complement how they learn statistics.

- **Comprehensive** – Minitab contains a complete set of sound, peer-reviewed methods; no need to buy, learn, or maintain separate add-ins or modules.

- **Inexpensive and accessible** – We offer many affordable ways for you and your students to use Minitab, from renting a single copy for a semester to providing unlimited use to your entire university community both on and off campus.

- **Compatible with any curriculum** – The organization of statistics and graphs in Minitab parallels the approach used in virtually all leading textbooks.

- **Widely used in business and industry** – Thousands of companies in more than 80 countries use Minitab to implement Six Sigma and other data-driven quality improvement programs.

"Simply the best statistics package there is! Bar none!"

Dr. Ross Traub
Professor
OISE / University of Toronto

Fully translated versions of Minitab are also available in Japanese, Korean, French, German, and Simplified Chinese.

To learn more, visit www.minitab.com/products

Minitab Statistical Software
Capabilities List/What's New

◆ = New or enhanced in Release 15

Ease of Use
- Menus and commands organized logically, matching textbooks and training manuals
- Project Manager: organizes analysis
- ReportPad™: report generator
- Clear, comprehensive Help system
- StatGuide™: explains output
- Online tutorials
- Glossary of statistical terms
- Reference of methods and formulas used in calculations
- Smart Dialog Boxes™: remember recent settings
- More than 300 real-world practice data sets
- Convenient desktop access to maintenance updates

Data and File Management
- Project files include all parts of analysis
- Multiple worksheets, with up to 4000 columns and unlimited rows in each
- Spreadsheet-like Data windows
- Easy copy/paste with Microsoft Excel
- Assign formulas to columns; columns update when data change
- Multiple Undo/Redo in the Data window
- Import/export: Excel, Text, CSV (Comma delimited), XML Spreadsheet, HTML, etc.
- ODBC querying
- Currency, percentage and date/time formats
- Data manipulation: merge, subset, sort, transpose, change data type
- Matrix functions
- Password protection
- Calculator with more than 100 functions for manipulations, calculations, and transformations of numeric, date/time, and text data

General Statistics
- Descriptive statistics
- Confidence intervals, one- and two-sample t-tests, paired t-tests
- One- and two-sample tests and confidence intervals for a Poisson rate
- Confidence intervals, one- and two-proportion tests
- Correlation and covariance
- Normality test
- Test for equal variances
- One-sample variance test
- Goodness-of-fit test for Poisson

Graphics
- State-of-the-art graphics engine
- Pictorial gallery and streamlined dialog boxes simplify graph creation
- Interactively edit attributes (axes, scale, etc.) and recreate custom graphs with new data
- Easily place multiple graphs on one page
- Display data from different variables or by groups in panels on the same page
- Information display tools: tooltips, crosshairs, plant flags
- Graphs can update as data change
- Built-in graphs: available with a single click
- Scatterplots, matrix plots, boxplots, dotplots, histograms, charts, time series plots
- Line plots
- Contour plots and rotating 3D graphs
- Probability plots, probability distribution plots
- Interval plots, individual value plots, area graphs, ECDF plots
- Numerous special-purpose graphs
- OLE: edit Minitab graphs in other applications
- Graph brushing
- Save as TIF, JPEG, PNG, BMP, GIF, enhanced metafile

Regression Analysis
- Linear regression
- Polynomial regression
- Logistic regression
- Partial least squares (PLS)
- Stepwise and best subsets
- Residual plots
- Easily create indicator variables
- Confidence and prediction intervals

Analysis of Variance
- ANOVA
- General linear model (GLM)
- Unbalanced nested designs
- MANOVA
- Fully nested designs
- Analysis of means
- Multiple comparisons
- Residual, main effects, and interaction plots

Statistical Process Control
- Run chart
- Pareto chart
- Fishbone diagram
- Variables control charts: XBar, R, S, XBar-R, XBar-S, I, MR, I-MR, Z-MR, I-MR-R/S, zone
- Attributes control charts: P, NP, C, U
- Time-weighted control charts: MA, EWMA, CUSUM
- Multivariate control charts: T^2, generalized variance, MEWMA
- Custom tests for special causes

- Historical/shift-in-process charts
- Individual distribution identification
- Box-Cox transformation
- Johnson transformation
- Process capability: normal, non-normal, attribute and batch
- Process capability for multiple variables
- Process Capability Sixpack™
- Multi-Vari Charts
- Symmetry plot
- Acceptance sampling

Measurement Systems Analysis
- Data collection worksheet
- Gage R&R: ANOVA and XBar-R methods
- Nested Gage R&R
- Attribute Gage Study – AIAG analytic method
- Attribute agreement analysis
- Gage linearity and bias
- Gage run chart
- Type 1 Gage Study (single part)
- Evaluate misclassification probabilities

Design of Experiments
- Two-level factorial designs
- General full factorial designs
- Plackett-Burman designs
- Response surface designs
- Mixture designs
- D-optimal and distance-based designs
- Taguchi designs
- User-specified designs
- Analysis of variability for factorial designs
- Response prediction
- Botched runs
- Mixture plots
- Overlaid contour plot
- Response optimization
- Plots: residual, main effects, interaction, cube, contour, surface and wireframe
- Effects plots: normal, half-normal, and Pareto

Reliability/Survival Analysis
- Parametric and nonparametric distribution analysis
- Goodness-of-fit measures
- ML and least squares estimates
- Exact failure, right-, left-, and interval-censored data
- Accelerated life testing
- Regression with life data
- Reliability test plans
- Threshold parameter distributions
- Analysis of repairable systems
- Analysis of multiple failure modes
- Probit analysis
- Weibayes analysis

- Hypothesis tests on distribution parameters
- Plots: distribution, probability, hazard, and survival
- Warranty analysis

Power and Sample Size
- One-sample Z, t, and proportion
- Two-sample t and proportions
- One-way ANOVA, two-level factorial and Plackett-Burman
- Power (OC) curves

Multivariate Analysis
- Principal components analysis
- Factor analysis
- Discriminant analysis
- Cluster analysis
- Correspondence analysis
- Cronbach's Alpha (Item Analysis)
- Biplot for principal components and factor analysis

Time Series and Forecasting
- Time series plots
- Auto-, partial auto-, and cross correlations
- ARIMA analysis
- Trend analysis
- Decomposition
- Exponential smoothing
- Winters' method
- Moving average

Nonparametrics
- Sign test
- Wilcoxon test
- Mann-Whitney test
- Kruskal-Wallis test
- Friedman test
- Runs test
- Mood's median test

Tables
- Chi-square, Fisher's exact, and other tests
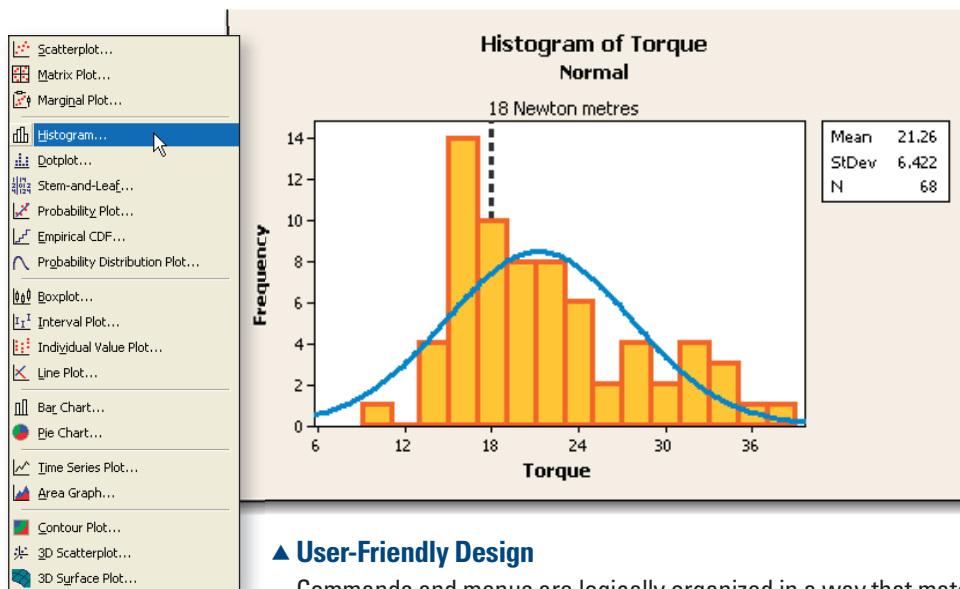- Chi-square goodness-of-fit test
- Tally

Simulation and Distributions
- Random number generator
- Density, cumulative distribution, and inverse cumulative distribution functions
- Random sampling

Macros and Customizability
- Customizable menus and toolbars
- Extensive preferences and user editable profiles
- Comprehensive command language
- Powerful macro capability
- Minitab COM-enabled automation: integrate Minitab as a behind-the-scenes engine
- MyMenu: add specialized functionality to Minitab

Features That Simplify Teaching and Learning Statistics

▲ User-Friendly Design

Commands and menus are logically organized in a way that matches textbooks and training manuals and fits how people learn and work. And because Minitab includes a comprehensive suite of statistical methods, your students won't need to buy additional modules or specialty statistics packages

Project Files

Save all the parts of your data analysis session in one file, then open it later and resume your work exactly as you left it – a great feature that helps busy students stay organized and makes completing homework assignments simple.

Comprehensive Data Management

Minitab offers powerful file export and import capabilities; data manipulation and subsetting; and easy-to-use Data windows that work like a spreadsheet and simplify students' transition from spreadsheets to statistical software.
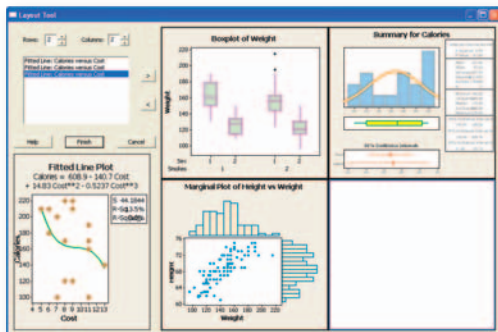
ReportPad™

ReportPad helps your students create professional-looking assignments within Minitab by letting them choose the results they want to highlight and effortlessly assemble and edit them into a coherent, formatted report.
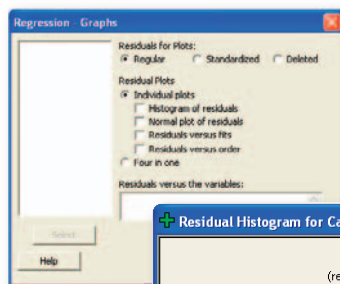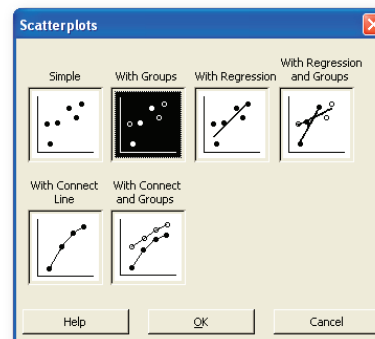
Built-In Guidance You Will Want To Use

Minitab's comprehensive glossary includes more than 500 terms written in clear, practical language. StatGuide™ provides easy-to-understand statistical guidance to help interpret output. Methods and Formula calculations are simple to access. The Help system explains how to use the software with complete instructions and examples. Meet Minitab, a short introductory guide, helps students get started quickly.
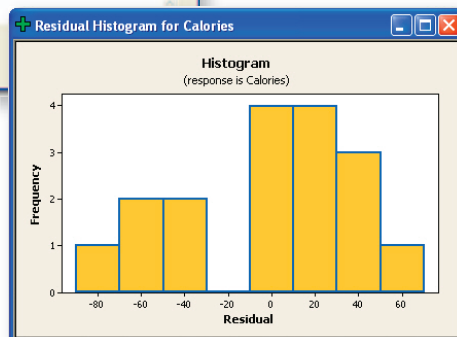
Graphs that Make it Easy to Analyze Data

▼ The ability to easily lay out multiple graphs in one window.

▼ An effortless method to create graphs – select the one you want from a pictorial gallery, and use data entry dialog boxes that are simplified for that graph.
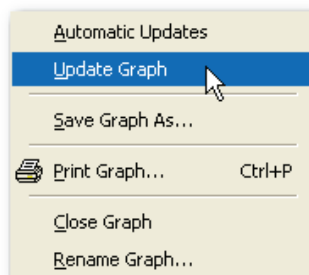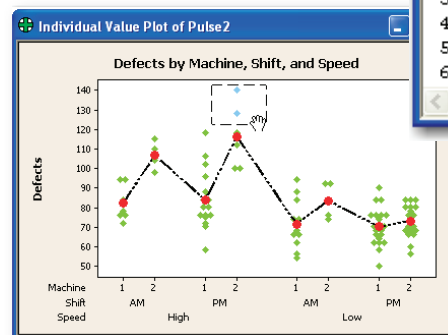
▼ Built-in graphs that you generate with a single click.

▼ Interactive graph brushing that lets you select and subset groups of points on a graph and identify common characteristics of those points.

◄ A dynamic link between a graph and its worksheet that lets you automatically update the graph when data are added or changed.

Plus a fast and easy way to edit graphs once you've made them:

- Add titles, footnotes, reference lines, gridlines, and more.
- Click on the aspect of the graph you want to change, and a dialog box opens that lets you modify it.

"Minitab has removed the computing barrier and allowed students to concentrate on learning and applying statistical methods."

William L. Carlson, Professor of Economics, St. Olaf College

Affordable Solutions

Academic Pricing

We offer substantial academic discounts on Minitab for individuals, teaching labs, networks – even universities that want to provide students, faculty, and staff with unlimited use both on and off campus.

Rent or Purchase Online at the Minitab Center

e-academy.com offers tremendous savings to instructors and students around the world who want to purchase Minitab or rent 6- and 12-month versions. They also offer a free trial version, good for 30 days. For details, visit **www.e-academy.com/minitab**

Minitab Student

For the ultimate in accessibility, we offer Minitab Student – a streamlined and economical version of Minitab that is included with many excellent textbooks. For more information or to consider including it with a book you use or wrote, contact your publisher representative.

For a comparison between Minitab 15 and Minitab Student, see **www.minitab.com/compare**

Smart Schools Use Minitab

Brigham Young University
California State University
Carnegie Mellon University
Cornell University
Dade County Public Schools
Dartmouth College
Duke University
Edinburgh University
Fairfax County Public School District
Georgetown University
Harvard University
Johns Hopkins University
London School of Economics
Massachusetts Institute
  of Technology
McMaster University
National Graduate School
  of Quality Management
National University of Ireland, Galway
New York University
Nottingham University
Oxford University
Penn State University
Princeton University
Rochester Institute of Technology
Stanford University
State University of New York
Tennessee Technological Institute
University of Chicago
University of Florida
University of Notre Dame
University of Warwick
Vanderbilt University
Yale University

Download a
FREE TRIAL VERSION
of Minitab 15 at:
www.minitab.com/minitab

Resources and Support

Free Technical Support

Registered users of Minitab have free access to our friendly technical support staff by phone or online. Our team of specialists is highly skilled in statistics and computer systems and is willing to spend as much time as necessary to help you.

Hundreds of Real-World Sample Data Sets

To enhance your courses and reduce class preparation time, we have included with Minitab nearly 500 documented real-world data sets suited to almost any type of analysis.

A Web Site Packed with Resources

Minitab.com offers a wealth of information and support for statistics instructors and their students, including:

- Companion Text List – a searchable database with more than 300 textbooks and supplements that feature Minitab
- Minitab at Work – a collection of links that automatically search major online job sites and retrieve positions that require Minitab experience
- Answers Knowledgebase – hundreds of frequently asked customer support questions and their answers
- Statistical resources and macro catalog
- Free demos and maintenance updates
- Online tutorials
- And much more

Outstanding Training

Training by Minitab™ is led by expert statisticians and available worldwide. Many sessions have limited seats available to academic instructors at reduced rates. We also offer Quality Trainer by Minitab™, a multimedia, e-learning service that teaches you statistics and how to apply it to improve quality.

For more information, visit **www.minitab.com/training**

Minitab ►™

QUALITY. ANALYSIS. RESULTS.

Learn more about Minitab 15 and download a free trial version at www.minitab.com/minitab

US Office
Minitab Inc.
Tel: 1-814-238-3280
Toll free: 1-800-448-3555 (US/Canada/Mexico)
Fax: 1-814-238-1702
E-mail: acadsales@minitab.com

UK Office
Minitab Ltd.
Tel: +44 (0) 24 7643 7500
Fax: +44 (0) 24 7665 2888
E-mail: sales@minitab.co.uk

French Office
Minitab SARL
Tel: +33 (0) 1 55 33 12 62
Fax: +33 (0) 1 55 33 12 39
E-mail: bienvenue@minitab.fr

MBREM15.acad
01/07