

Multivariate Analysis
Work with multivariate data using principal component analysis (PCA), factor analysis, discriminant analysis, multidimensional scaling and more.

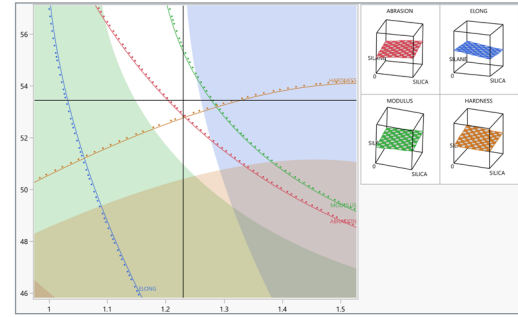
Clustering
Group observations using hierarchical, k-means, SOM, normal mixtures and variable clustering. Apply latent class analysis to categorical data.

Consumer & Market Research
Gain insight using A-B testing, Uplift, market basket and survey data analysis. Perform conjoint analysis to fit choice models (discrete choice and MaxDiff).

Structural Equation Modeling (SEM)
Perform CFA, assess validity, reliability and build path models. Do multi-group analysis and explore robust and bootstrap inferences for non-normal data.

And More:

- Item analysis (IRT)
- Multiple correspondence analysis
- Multiple factor analysis (MFA)
- Multivariate Curve Resolution
- Genetic marker statistics, simulation and multivariate embedding (UMAP/t-SNE)



Classical (Textbook) and Modern Optimal Designs
Explore easy DOE. Create factorial, screening, response surface, Taguchi, and custom optimal designs.

Optimization and Simulation
Fit models to multiple responses, find optimal settings using built-in optimizer, and use integrated simulation to validate robustness.

SPC, Capability and Six Sigma
Create interactive SPC charts, perform measurement system analysis, capability studies and solve quality problems using DMAIC Six Sigma tools.

Reliability & Survival
Evaluate and improve reliability in a product or system. Analyze survival data in organisms. Build models for time-to-event data.

And More:

- Design evaluation and comparison
- Covering arrays
- Limit of Detection (LOD)
- Design Space Profiler
- Process screening
- Stability and shelf life
- Pareto and cause-and-effect

JMP is commercial software that is also ideal for teaching, allowing professors to spend more time teaching concepts and real-world examples without programming. The highly visual, point-and-click interface of JMP helps students grasp statistical and analytical concepts and apply them to real data. See how JMP provides a complete end-to-end analytics workflow and helps maximize value in today's datadriven world at jmp.com/success.

Free Resources
Everything you need to teach, learn and research – better. The JMP Academic Program provides faculty, researchers and students with learning resources that shorten the learning curve and enhance the data analysis experience.

Learning library: jmp.com/learn
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Case study library: jmp.com/cases
Books: jmp.com/books
Webinars: jmp.com/webinar
White papers: jmp.com/whitepapers

Statistical Thinking Course
jmp.com/statisticalthinking
Free online statistics course Statistical Thinking for Industrial Problem Solving (STIPS) to build practical skills in using data to solve problems.

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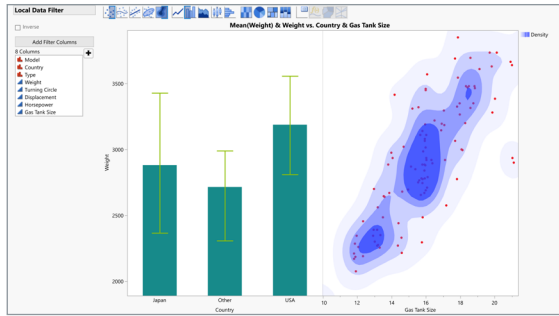
Questions?
Contact us at academic@jmp.com



JMP® is powerful, visual, no-code statistical software. It's a tool of choice for scientists, engineers and other data explorers around the world.



Data Visualization



Drag-and-Drop Graphing
Quickly create and customize a variety of charts, graphs, plots and maps to uncover insights using Graph Builder.

Interactive Visualization
Create interactive graphs and perform data exploration visually to make breakthrough discoveries.

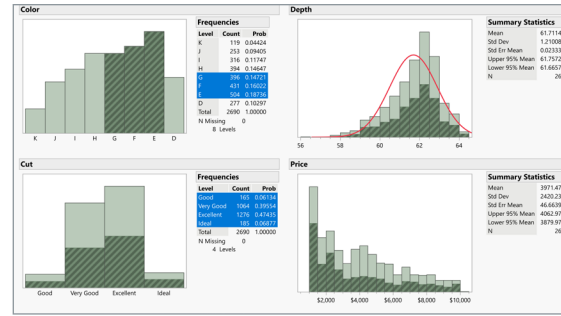
Geographic Maps
Plot location-based data on maps using prebuilt/online server-based maps. Easily import images and shape files.

Data Management and Filtering
Dynamically import, filter and clean various forms of data; organize and share insights through a variety of formats (PPT, PDF, image, HTML5).

And More:

- Bubble and 3D scatterplots
- Dashboards and Workflow Builder
- Integrated Python
- Internet open and Google Sheets
- Automation and scripting
- Platform presets

Introductory Statistics



Summary Statistics
Perform simple univariate and bivariate analyses with interactive graphics and summary statistics.

Probability and Distributions
Fit distributions, calculate probabilities and explore continuous and discrete probability distributions.

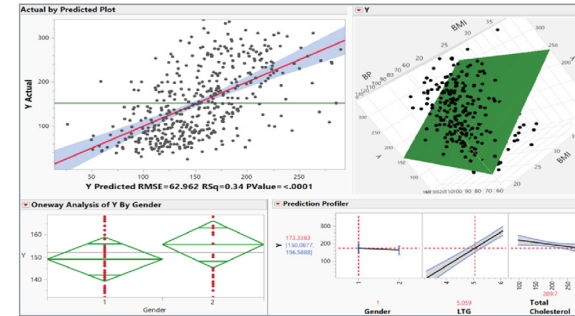
CI and Test of Hypothesis
Get confidence intervals (CI) for means and proportions. Perform tests including chi-square, t-tests and nonparametric.

Correlation and Simple Regression
Explore associations and model relationships between two or more variables with least squares.

And More:

- Tabulation
- Outliers and missing values
- Randomization and Bootstrapping
- Sample size and power
- Teaching simulators and calculators
- Concept discovery applets

ANOVA and Regression



Analysis of Variance (ANOVA)
Perform one-way and factorial ANOVA. Test for equality of group variances and perform Welch test.

Multiple Linear and Logistic Regression
Build multiple linear models and perform diagnostic tests. Fit nominal and ordinal logistic regression models.

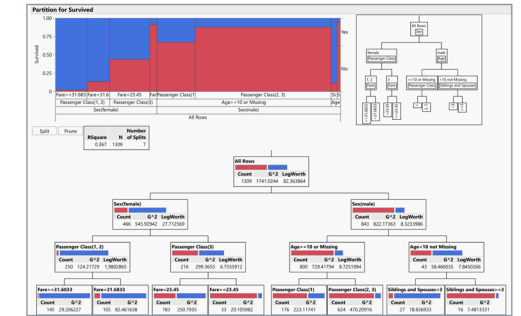
Generalized Regression
Explore lasso, elastic net, ridge and double lasso estimation methods. Apply various distributions including quantile and zero-inflated for response variable.

Mixed Models and GLMM
Analyze fixed and random effects. Build spatial and autoregressive models. Explore treatment designs and multilevel models.

And More:

- MANOVA and ANCOVA
- Nonlinear models
- Generalized linear models
- Loglinear variance models
- Partial least squares (PLS)
- Prediction Profiler

Predictive Modeling and Machine Learning (ML)



Model Building
Build models using neural networks, decision trees, KNN, SVM, XG boost and other algorithms. Apply deep learning for image, text and tabular data.

Model Validation, Comparison and Ensemble Methods
Perform cross and k-fold validations, compare models. Apply Bagging, Boosting, Bootstrapping and build ensemble models.

Time Series Analysis & Forecasting
Explore Stationarity, build and validate smoothing, ARIMA, state space and transfer function models. Forecast using an automated model selection algorithm.

Text Analytics & Sentiment Analysis
Analyze unstructured text using word cloud, SVD, term selection, topic analysis and sentiment analysis.

And More:

- Model screening (AutoML)
- Decision/probability thresholds
- Deployment/score codes
- Peak detection and Penalized SVD
- Functional data exploration