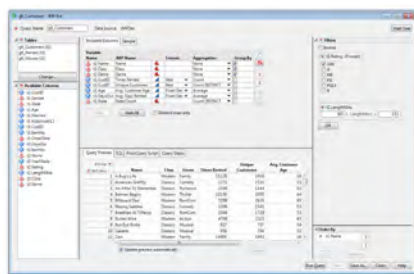


New features in JMP® 12 and JMP® Pro 12

From data import to analysis to sharing results, JMP 12 and JMP Pro 12 speed the learning cycle and make it easier to reach breakthrough statistical discoveries in such applications as design of experiments (DOE); quality engineering, reliability and Six Sigma; statistics, predictive modeling and data mining; data visualization and exploratory data analysis; and consumer and market research. The **PRO** icon indicates additional features exclusive to JMP Pro 12.

Data Import, Cleanup and Cleansing



With Query Builder, you can automate table joins, filter prompts and queries – no coding required.

- Query Builder helps you discover interesting data and make correct queries that are repeatable and sharable. Build custom prompts, sample databases and monitor queries in progress.
- Recode now lets you clean up messy data with a suite of powerful tools, including string clustering based on character edit distance. Recode manually, automatically, with a script or using a combination of these.
- Anonymize, a data table utility, disguises column names and data values while maintaining data structure.

- Cols menu has new Utilities sub-menu, which includes Recode, Compress Selected Columns, Text to Columns, Combine Columns, Make Binning Formula and Make Indicator Columns.
- Cols menu has new Modeling Utilities sub-menu, which includes Explore Outliers, Explore Missing Values and Screen Predictors.
- Support for more than 2^{31} rows in a data table. Support for 64-bit integers.
- File previewer for Mac version of JMP and Quick Look preview plugin for Mac OSX now available.
- Excel Import Wizard now available on Mac version of JMP.
- Option to close all or multiple windows on Mac version of JMP now available.
- **PRO** Cols menu has new Modeling Utilities sub-menu that also includes Make Validation Column.
- **PRO** Launch the utility for creating validation columns directly by clicking the Validation column role in any platform that supports it.



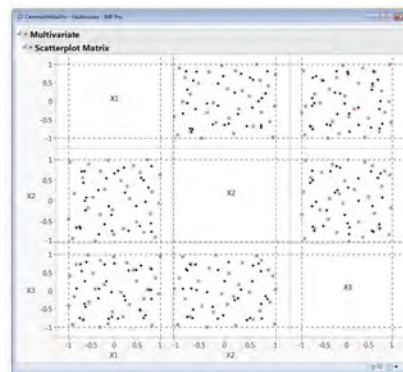
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Details on new features

Get the full documentation of all of the new features in JMP 12 and JMP Pro 12.

jmp.com/release-notes

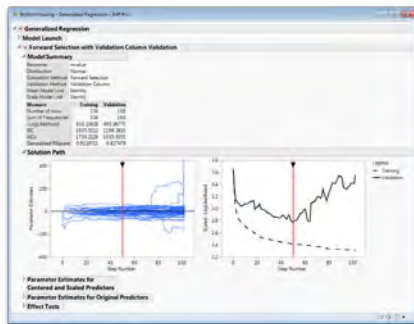
Design of Experiments (DOE)



Space-filling designs generated with the MaxPro criterion have runs that reach the boundaries, while those created with the Centroid method do not.

- Disallowed Combinations Filter available in DOE platforms.
- Definitive screening designs support blocking.
- Space-filling designs support categorical factors.
- New MaxPro criterion allows space-filling designs to reach design boundaries.
- **PRO** New Covering Arrays platform enables you to design an experiment to maximize the probability of finding defects while minimizing cost and time.

Statistics, Predictive Modeling and Data Mining



The more interactive Generalized Regression platform in JMP Pro 12 is a one-stop shop for variable selection, modeling and generalizing data to diverse distributions.

- Visual model editor lets you quickly run and compare various models with a drag-and-drop interface.
- Clustering improvements reduce pre-processing time. The platform now supports stacked data, includes summary features and lets you focus on just a column cluster of interest.
- The Discriminant platform includes many new capabilities, such as robust fitting options, support for missing data, canonical variables centering, increased dimensional support and improved scoring functions.
- X11 decomposition available in Time Series platform.
- ANOR (analysis of ranges), which provides information about group variation, now included in Analysis of Means methods.
- PCA supports wide principal components analysis.
- Cauchy fitting now available in the Response Screening platform.
- **PRO** Performance is greatly improved for larger problems using the Mixed Model or Generalized Regression personalities of Fit Model.
- **PRO** Forward stepwise class of modeling now supported in Generalized Regression.
- **PRO** Additional distributions available in Generalized Regression, including Quantile regression.
- **PRO** Variograms, for determining which spatial correlation structure is most appropriate, now available in the Mixed Model personality of Fit Model platform.
- **PRO** Discriminant platform now supports validation.
- **PRO** K-nearest neighbors prediction added to Partition platform.
- **PRO** PLS discriminant analysis fits a PLS regression with a categorical response.
- **PRO** Bootstrapping model predictions now supported for all PLS model fits.



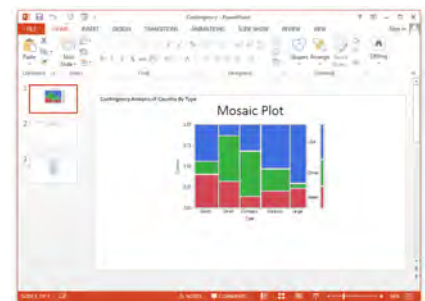
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Data Visualization and Exploratory Data Analysis

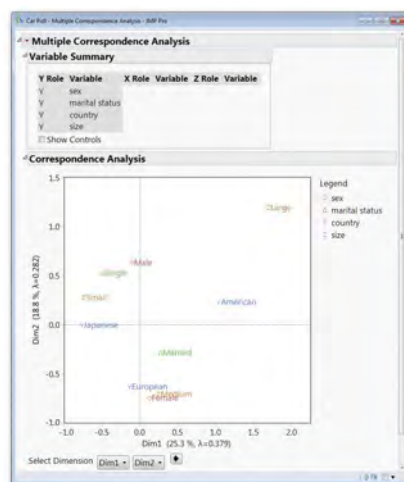


Get JMP reports into PowerPoint with just one click.

- Export JMP reports directly to Microsoft PowerPoint with a single click, making it easier to build presentations of your analysis.
- New Expression data type in data tables supports matrices, associative arrays, JSL expressions and images.
- Graph Builder enhancements include visible landing zones while dragging; selectable legends; more control over graph formatting; overlaid histograms; needle and float bar types; step, horizontal, vertical and spline-based line elements; pages role (a pseudo-BY variable).
- A launch dialog box now available for Graph Builder, providing for true BY groups and improved performance when analyzing large data sets.
- "Make into Data Table" command in Graph Builder exports graphs into expression columns.

- Axis settings dialog box has many interface updates and new features, including multilevel axis property modifications for nested axes, axis reference ranges and categorical tick marks that match up with the underlying numeric values.
- Legends are selectable in many platforms.
- Interactive HTML output available for Bubble Plot and Profiler.
- New tiling algorithm in Treemap draws rectangles in order of size while keeping rectangles as close to square as possible.
- Ternary Plot and Mixture Profiler have improved behavior for the magnifier and hand tools, and they support editing of Axis properties, including minimum/maximum, major and minor gridlines, and reference lines.
- New transforms include selected rows transform, abbreviated month and distributional transforms (center, standardize, range 0 to 1, Box Cox, Johnson normalizing, informative missing).
- Summary supports Histogram option, which saves an image of a histogram to the summary table for each group as an expression column.
- Create a new formula column for popular transforms by right-clicking a column in the data table.

Consumer and Market Research



Use Multiple Correspondence Analysis to visualize and uncover hidden structures in a data set consisting of more than two categorical columns.

- Multiple Correspondence Analysis (MCA), which is like principal components analysis for categorical factors, has been added. MCA is useful when a data set has more than two categorical columns or contains multiple response data.
- Categorical platform improvements include Likert plots and the binomial rate test (an alternative to the default homogeneity test for multiple response data).
- Choice models include two new Profilers: Multiple Choice and Probability.



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Quality Engineering, Reliability and Six Sigma



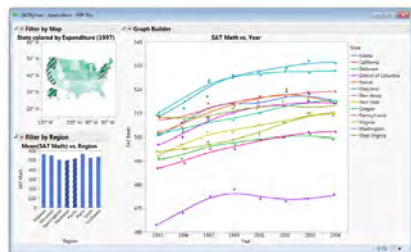
Run capability analysis directly from Control Chart Builder.

- New Destructive Degradation platform enables you to choose from several model path definitions, transformations and failure distributions. Platform includes a model comparison report, and CDF and Quantile Profilers.
- Reliability platforms have consolidated censor code widget.
- Compare groups in Life Distribution by overlaying multiple groups on the same plot.
- Overlay likelihood contour on top of the prior and post scatterplot in Life Distribution.
- Row-based storage and import of spec limits now supported.
- Numerous enhancements to Reliability Forecast platform include allowing different costs for different groups and support for Defective Subpopulation distributions.
- Attribute charts in Control Chart Builder now support noninteger data.
- Define specs within, and generate capability report directly from, Control Chart Builder.
- New unified Process Capability platform reports both within

(short-term) and overall (long-term) capability.

- Fit Mixture and Fit Competing Risk Mixture added to Life Distribution platform.
- One-sided or two-sided option for custom estimation now available in Life Distribution.
- **PRO** Enhancements to Reliability Block Diagram include the option to construct series or parallel diagrams from existing blocks; new Cumulative Hazard Profiler; by-component overlay plots in CDF, PDF, Hazard and Cumulative Hazard; component-integrated importance report; and system designs and library items that are easier to copy and paste for system design template creation.

Analytical Application Development



Use one graph to filter another with selection filtering.

- Selection filtering enables one graph to filter another (accessible through AppBuilder and JMP Scripting Language).
- Surround a subexpression by the function `As Constant()`; to evaluate the expression only once, speeding up scripts that have complex but constant expressions.

- AppBuilder allows you to arrange more than one module in a single window and to edit applications embedded in data tables.
- Display and edit box properties are easier to adjust and customize.
- `Internet Open()`; now creates a script to import images if they are available in an HTML table.



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