Release Notes for JMP 13.1

JMP 13.1 is a general maintenance release that contains enhancements and bug fixes. Reproducible crashes and numeric issues have been corrected. Applying this maintenance release is recommended for all sites.

New Features

- A Model Comparison section has been added to the Latent Class Analysis report.
- Saving limits to a new data table is an option in Control Chart Builder.
- In Control Chart Builder, you can select the Multiple Response column property in Test Failure columns.
- A Simulation Results report appears by default in the Distribution report for a data table produced by the Simulate feature. The report gives quantile-based confidence intervals and empirical p-values.
- The Logist() function is supported in Formula Depot when you convert a Boosted Tree prediction formula to SQL.
- The Select Dominant message for data table rows is available for calculating the Pareto frontier.
- Interactive HTML supports transparent map shapes.
- Interval bar charts with more than two Y variables are interactive in Interactive HTML.
- In Text Explorer, the Show Text feature is now available in the Display Options, SVD Scatterplot Matrix, Topic Scatterplot Matrix, and MDS LCA Plot.
- The academic teaching modules and calculator scripts (accessible from the Help > Sample Data window) have been updated.
- Parallel plots are supported in Graph Builder for the iPad.
- The following date-time formats are supported in the importing of SAS transport (.xpt) files:

Process Screening

- The default PPK boundary is set to 1.33 instead of 2 in the Process Performance Graph.
- Only Test 1 is turned on by default.
• In the Shift Detection red triangle menu, the Show Shifts in Quick Graphs option shows detected shifts using red and green vertical lines.
• The Process Screening report has been reorganized. IMR is now the default control chart calculation type.
• The default sort order is by Stability Ratio in decreasing order.
• You can specify the shift lambda on the launch window.

General Improvements

Add-Ins
• Question mark icons do not appear next to menu items that have no customized icon assigned to them.

Application Builder
• On Macintosh, JMP does not close abruptly when an application uses a missing data table.

Dashboard Builder
• JMP does not display an error after you select Start Over from the Dashboard Builder red triangle menu.

Databases
• Unexpected results when importing the BLOB, CLOB, NCLOB, and VARCHAR(MAX) data types have been resolved.

Data Filters
• On Macintosh, when the data filter columns are conditional and interdependent on each other, the display updates correctly.
• When you run a script to create a report with a local data filter and send the Journal message at the end of the script, the local data filter correctly applies the specified criteria to the graph.

Data Tables
• Scripts that rename a large number of columns run faster.
• When you use the Substitute Column Reference option in Standardize Columns, formulas are applied to selected columns correctly.
  The option to use an exact column in the formula rather than incrementing is available. In the Standardize Attributes window, select Substitute Column Reference and then select the column that contains the absolute value.
• When you standardize attributes with Substitute Column Reference selected, the columns are incremented correctly.
• When you append a data table, the main data table might contain a List Check column property. If the appended data from the corresponding columns are not valid for the List Check columns, the List Check property is not removed.
• The modeling type for new columns is the same whether you add the columns by selecting Cols > New Columns or by right-clicking and selecting Insert Columns.

• If you assign value colors to a column and add a row legend to the graph, the Colors option in the Row Legend window defaults to Value Colors.

• The list in the Columns panel scrolls correctly after you double-click a column that follows grouped columns.

• When there is a subgroup variable, and multiple quantiles are requested together with minimum or maximum, Summary displays the correct quantile.

• JMP does not close abruptly after you create a data table with Columns by Categories (if missing data are added to one of the columns).

• When a column’s formula is changed to produce an expression, rather than a number or string, the column’s data type is changed to Expression.

**Formula Editor**

• The collapsed and expanded state of the Formula Editor persists between JMP sessions. The red triangle menu now provides an option to reset the layout of the panels.

• When you edit a local variable or parameter, a script editor window now displays. Define the item as you would in a JSL script. For example, include quotes around string names and escape quotes that are part of a string.

**Graphics**

• When you deselect Copy/Drag Graphic Formats in the Windows Specific preferences, the deselected formats do not appear as options when you paste a graphic.

**Home Window**

• On Macintosh, when a file is removed from its location, and it’s listed in the Home Window as a favorite, the favorite is grayed out in the Favorites list.

**Import and Export**

• When you export a data table to Microsoft Excel on Windows and then import the Excel file on Macintosh, the data is imported as expected. Previously, the data table was empty.

• In the Japanese interface, JMP does not close abruptly when you import a CSV file using the Text Import Wizard and the Charset option is *not* set to Shift-JIS.

• When you import a Microsoft Excel file, time values with milliseconds of 500 or greater are rounded up.

• JMP does not close abruptly when importing metadata-based JSON files.

• In the German Windows interface, data is not missing when the date format dd.mm.yyyy is imported as mm.dd.yyyy.

• On Windows, JMP does not close abruptly between the time that you export a data table as an Excel file and the file opens in Excel.

• Large CSV files import faster.

• The data type field for each column is now interpreted correctly when you import Minitab files. Previously, the data table was not created.
Interactive HTML

- Continuous and discrete numeric factors are consistent in an interactive HTML Profiler and the desktop version of JMP.
- When both the X and Y variables are categorical on line charts, or the chart has multiple Y variables, the data values instead of the statistic appear on the tooltip.
- Customized markers are displayed correctly on graphs.
- Values are not shifted to the next marker when a Freq variable is assigned or a summary statistic is specified.
- The contents of static images are now displayed consistently.
- Labels do not overlap in bar charts.
- Bar charts are formatted with the correct colors.
- The content and placement of tooltips and labels have been improved.

JMP Query Builder

- When you use a dot as a decimal separator, the dot is no longer transformed into a comma when you press Enter.

Journals

- Scripts are correctly added to outline items when you select the Add All Open Files option.
- JMP does not close abruptly when you cut and paste a button in a journal.

Launch Windows

- When you assign a column to a role in the launch window, and only one column is permitted, JMP reports the maximum number of permitted columns and does not let you assign more columns.

Preferences

- When you edit a conditional formatting rule in the Reports preferences, the controls on the right of the Conditional Format Rule window edit the rule that is selected in the left column. Previously, the controls on the right edited an unsaved condition that could be added with the Add button.

Projects

- A reference to a project does not return an “unknown operation” error.

Recode

- On Macintosh, in a long list of values, you can edit the last entry of a value that was previously grouped. Scrolling issues on Macintosh and Windows have also been resolved.

SQL

- On Macintosh, when a queried data table has a .jmp extension, table references work as expected.
Graphs

Bubble Plot

- JMP does not close abruptly when you run a bubble plot script that refers to an invalid color scheme.

Graph Builder

- Cluster numbers in tooltips are correct.
- Tooltips appear even for points that are in the background.
- The bars for geometric means with a Freq variable appear on graphs.
- The numbers in a tooltip are correct when a non-continuous variable is the target of a summary statistic.
- JMP does not close abruptly when you run a script and all color values are missing.
- The mean still appears on a bar chart after you change the error bars to Std Dev.
- JMP does not close abruptly when you drag a variable from the Y drop zone in a very short graph or with a large dataset.
- Area and line charts feature a new option called Missing Factors. Change the value to “Treat as zero” to see the chart drop to zero where there is no value. This is the way the chart was displayed in JMP 12.
- Errors in importing .shp files have been resolved.
- The WMS background map option now allows for parameters to be added. You can append a question mark (?) followed by name=value pairs to the end of the WMS URL. Separate each name=value pair by an ampersand (&).

Scatterplot Matrix

- Large scatterplot matrices can be resized faster.
- The grabber tool works with the histograms in Scatterplot Matrix.

Statistics

Association Analysis

- Rotated SVD results in Association Analysis are much improved.

Bivariate

- The Lack of Fit table is correct when you use a data filter in a Bivariate analysis.

Capability

- Spec limits are now always saved as a list whether they are entered in the Column Properties window or in the Capability platform.
Categorical

- The output you get from saving a script matches the output from an analysis.
- JMP does not close abruptly when the syntax for supercategories in a script is incorrect.
- Indicator Variables and Multiple Responses now handle missing counts correctly. Indicator columns must be missing (not all 0) to be considered missing. Otherwise, there is no distinction between “None of these” and “Refused to answer”.
- All variables are saved when you save a data table as a Microsoft Excel file.
- JMP does not close abruptly when you copy and paste in Categorical.

Choice

- Confidence limits are now computed with a traditional Bayesian approach in Choice.
- An effect does not appear in the Utility Profiler after being removed from the Effect Summary.
- Utility Profiler and Multiple Choice Profiler scripts remember subject effect settings.
- Standard errors are now included in the Willingness to Pay report when there are no interactions.
- The Remembered Settings report shows the correct subject effects.
- The Remembered Settings report shows accurate utility values after you select the Maximize for Each Grid Point option.

Control Chart Builder

- The standard deviation matches that of the individual control chart platform when you save the limits to a new data table.
- When you use Get Limits and save the limits in a new data table, the standard deviation is correct.
- Within Sigma is correct for three-way charts that you create in the interface.
- JMP does not display an error message or close abruptly when you add a row to the data table with the Event Chooser.
- When you remove the last Y variable in a large series of Ys from a chart, JMP does not close abruptly.
- When you select Remove Graph from the last graph in a Control Chart Builder chart, or you start over after removing graphs, JMP does not close abruptly.
- The sigma for every chart is maintained when you redo an analysis.
- Redoing the analysis from a C chart does not produce an NP chart.
- JMP does not freeze after you create an analysis and then start over, and the chart contains multiple Y variables.
- The Event Chooser is not available for non-integer Y variables.
- When you close abruptly the Control Panel and click the Play button on Column Switcher, the Control Chart Builder window retains its original size.
- Clicking Undo removes the sample size that you set.
- When you click Start Over and create a Dispersion chart, the chart is accurate. Previously, two Range charts in addition to the XBar chart were created.
- The sigma is calculated separately for each phase of the Levey Jennings chart.
Control Charts

- If you set the value for H to be greater than 10 in the launch window, the analysis runs after the CUSUM warning appears.
- Non-integer values for K in Levey Jennings plots are not truncated without warning.
- A K parameter that is larger than 1 can be set in the CUSUM launch window.
- Scripts from a control chart with capability on two or more variables do not repeat the distribution for the first variable.

Design of Experiments

- In Definitive Screening, JMP does not close abruptly when you maximize the desirability in a profiler.
- The Compare Designs feature is more robust when matching columns.
- In Custom Design, very small numbers are not rounded to zero when making the design.
- In Custom Design, center points for Mixture variables fall in the feasible region based on the bounds of the Mixture variables.
- In Custom Design, when you change factors to hard-to-change, and the design contains replicates, JMP no longer closes abruptly.
- The saved script from an Accelerated Life Test design includes `Set Number of Units(n)`, so rerunning the saved script produces the same design each time.
- In Compare Designs, JMP does not close abruptly when there are linear constraints with unscaled values.
- Accelerated Life Test designs produce the same results interactively and through a script.
- Entering incorrect JSL for Disallowed Combinations no longer forces you to close JMP.
- When you create a design in Evaluate Design using a script, the JMP menus appear in the resulting window.
- Mixture constraints with random blocks return valid runs.
- In Nonlinear Design, JMP does not close abruptly when you enter an incorrect number of design points.

Distribution

- T ratios and p-values have been corrected. Previously, they were out of order.
- The value in the Level Tested column of the Test Probabilities report remains the same when you redo an analysis.
- Selecting Make Combined Data Table displays the Moments report only if you selected it.
- To improve speed, the graph has been thinned out when there are large amounts of data.
- After you select a column in the Column Switcher, the histograms do not scroll outside the window.
- Spec limits are now always saved as a list whether they are entered in the Column Properties window or in the Capability platform.
- The Distribution platform does not count an excluded row as missing.
Excel Add-In

- When you install JMP on Windows as an administrator, the Excel Add-In loads when a local user then logs in and opens Microsoft Excel.

Factor Analysis

- Standardized Score Coefficients (SSC) are accurate.
- The Unscaled Variance Scaling option on the launch window correctly estimates squared multiple correlations (SMCs) without the intercept.

Fit Model

- The No Intercept option is correct after you select Model Dialog from the red triangle menu.
- The Lack of Fit table is correct when you use a data filter in a Fit Model analysis.
- JMP does not close abruptly after a script that calls Fit Model from a Try() function is run.

Generalized Regression

- Forced terms are correctly forced into the final model for the adaptive double lasso.
- When using variable selection methods, effect tests are presented for active effects even if the effects are involved in a singularity.
- When you exclude rows and request a custom comparison, the degrees of freedom for error is correct.
- If a crossed effect cannot be estimated in the maximum likelihood estimation (MLE), the effects are ignored in the Forward Selection estimation method.
- Odds, hazard, and incidence rate ratios are not available in intercept-only models because they are not applicable.
- The two-stage selection procedures have been modified. With the double lasso, the minimum penalty is applied only to the first pass and then the selection proceeds to the end on the second pass. In two-stage forward selection, the main effects are not forced into the second stage; you can select them. For the Logistic Regression estimation method, separation is avoided by not creating the most complicated model.
- Fitting a model with a Beta Binomial distribution now runs faster for cases where the sample size is greater than 100 and the dispersion is positive.
- When the estimation method does not include a penalty in a normal distribution, statistics for the F test appear in the Effect Tests report.

Mixed Models

- Clicking the Nest Random Coefficients button on the Random Effects tab creates the Intercept term correctly.
- The “Exchangeable” covariance structure is now named “Compound Symmetry”. In the report for a pure variance component analysis, the “Covariance Parameter” column is now named “Variance Components”. Note that these changes cause JSL compatibility issues. You’ll need to update your scripts.
- JMP does not close abruptly when you assign AR(1) as the repeated structure with only two time points.
The report now includes the total variance for models that are equivalent to REML models.

**Standard Least Squares**
- When the Center Polynomials preference in Model Dialog is turned off, and a model is run with the option turned on, the script saved from the results window is correct. The polynomials are also uncentered.
- In REML the CV column and covariance matrix are now correct when a variance component is confounded with the residual.
- When a Freq variable has been assigned, the Bonferroni limits plotted in the Studentized Residuals plot use the total number of observations correctly.
- New Fit Model platform preferences enable you to determine which reports are included in the Standard Least Squares reports that are produced by the Effect Leverage, Effect Screening, and Minimal Report Emphasis options.

**Fit Y by X**
- In a two sample test from proportions, the direction of the one-sided Adjusted Wald Tests have been reversed.
- A saved script accurately displays the Column Switcher in Fit Group.
- With large data tables, JMP runs faster when fitting a linear regression and requesting residual plots.
- Curves are not drawn as straight lines in Logistic plots.

**Formula Depot**
- The correct numbers are generated in C and JavaScript code after the generated code is executed.

**Gaussian Process**
- Less memory is required for the Fast GASP option.

**Hierarchical Clustering**
- Accurate R-square values are output in the Column Summary when all data values in the Y column are the same.

**K Means Clustering**
- The manual steps in Self Organizing Maps are reproducible in a script.

**Latent Class Analysis**
- A Model Summary report that contains the log-likelihood, number of parameters, BIC, and AIC has been added.

**MaxDiff**
- MaxDiff estimates correctly when there are different numbers of choices per choice set.
- Confidence limits are now computed with a traditional Bayesian approach in Choice.
- Best and Worst choice values are set correctly, and scripts remember the settings.
• JMP does not close abruptly when continuous factors are nested.

**Multiple Correspondence Analysis**

• Save Supplementary Coordinates displays the actual coordinates rather than missing values.

**Multivariate**

• The Save T Square option in JSL creates a new column in the data table even when the T² platform preference is turned on.
• Correlation coefficients are correct even when variables have very small variability.
• The preference that adds density ellipses to a Scatterplot Matrix works as expected.

**Multivariate Control Chart**

• Change point detection is correct when rows are excluded or hidden.

**Ordinal Logistic**

• Curves are not drawn as straight lines in Logistic plots.

**Naive Bayes**

• The sample size does not decrease as the number of X variables increases.

**Neural**

• Performance issues in Neural were fixed so that the platform runs faster.
• When Neural predicts a categorical value, the data type for the probability columns is correct.
• The results for a Neural model with a Freq variable are correct.

**Nonlinear Curve**

• JMP does not close abruptly when running a Custom Inverse Prediction.
• A Michaelis Menten model converges to a better solution for certain data when the (0,0) data point is in the analysis.

**Oneway**

• The threshold labeling for equivalence tests are not backwards.
• Multiple comparison circles are drawn correctly after you change the axis to use a log scale.
• When one row or column contains all zeros, the Fisher’s Exact Test is not available.

**Overlay Plot**

• When you run a script that creates an Overlay plot, closes the data table, and then tries to close the Overlay plot using the Close message, JMP does not close abruptly. Now, an error appears in the log because the message should be Close Window.

**Parametric Survival**

• Selecting the Distribution Plot by Level Combinations red triangle option works correctly when the distribution is Normal, LEV, or SEV.
Principal Components

- The Unscaled Variance Scaling option on the launch window correctly estimates squared multiple correlations (SMCs) without the intercept.
- Supplementary labels are now in the score plot instead of the loading plot, and they are within bounds of the plot.
- Eigenvalues for Sparse PCA match those for other estimation methods.
- Cumulative Percent adds up to 100 with the Sparse PCA estimation method.

Process Capability

- You can now specify a reference to a file path to a saved data table in a script when importing spec limits.
- Spec limits are now always saved as a list whether they are entered in the Column Properties window or in the Capability platform.

Process Screening

- The standard deviations with a subgroup variable in the $s$-chart now do not use the $c_4$ bias-adjustment though $c_4$ is still used to calculate within-sigma.
- “Show All Tests” is now named “Show Tests”. “Show All Tests” still works for backwards compatibility in scripts.
- The time scale in a Shift Graph has been expanded to show the whole time scale, not just where there were shifts.
- Spec limits are not reversed when a limits table is used for Process Screening from a script.

Profilers

- The interface in the Profiler Simulator for adjusting the probabilities of random nominal variables has been improved.
- A JSL variable that is used as an argument for a nominal factor is evaluated correctly.
- Simulator factor settings below the profiler and in the drop-down list now match.
- The Automatic Histogram Update setting in the Profiler Simulator is captured in a saved script.
- When you save Remembered Settings in a profiler, the confidence intervals are correct.

Repairable Systems Simulation

- System diagrams that contain K-out-of-N and Standby blocks give correct values.

Simulate

- Simulate works in Parametric Survival and the Fit Life by X profilers as expected.

Stepwise

- JMP does not close abruptly when you run a model that contains By groups in Stepwise.
- Sums of Squares values in the Current Estimates table do not become negative when interaction effects are entered into the model.
• The Combine rules option has been updated so that it no longer adds an interaction term if the interaction term itself is non-significant.

Tabulate

• JMP does not close abruptly when attempting to set the column width of an empty Tabulate object.

Text Explorer

• When the local data filter and word cloud are displayed, JMP does not close abruptly.
• German stemming issues have been resolved.
• Hidden and excluded rows are not counted as phrases.
• The scrollbar remains in the correct position after you add stop words, add stem exceptions or phrases, recode, and right-click a term and select Add Stop Word.
• A tooltip has been added for the Term list that shows the original words when stemming occurred.
• Topic analysis results no longer depend on the sort order of the data table.

Variability Chart

• All Y axes appear in a Variability Chart.
• When the Y variable for a Gauge R&R chart is very small, the Reproducibility reported in the Variance Components for Gauge R&R is correct.
• The legend is no longer duplicated when you drag and drop to switch X variables.

Scripting

• Random crashes when saving a script have been fixed.
• On Windows, using the `Count()` function inside `XPath()` does not return an error. (On Macintosh, the feature is unavailable.)
• JMP uses memory more efficiently when a script closes data tables from which a large number of graphs have been generated.
• When you open a CSV or text file, assign a variable to the data table, and refer to the variable, the data table reference is resolved correctly.
• When a `By()` variable is combined with a JSL variable, JMP correctly resolves all variables.
• Deleting a column in a data table does not prevent the re-evaluation of a formula column.
• `Constrained Minimize()` with a linear constraint gives correct values when not using the `Show Details(True)` message.
• `Constrained Minimize()` and `Constrained Maximize()` process a starting value.
• Adding a `Col Box()` to a `Table Box()` does not make the `Table Box()` smaller.
• JMP does not close abruptly when you close the underlying data table of a Graph Builder object that is used within a `Sheet Box()`.
• The `Get Selected` message for `Col List Box()` returns a list of string column names instead of column references.
• On Macintosh, the window that `Pick Directory()` produces contains a New Folder button.
• JMP does not close abruptly when running a script that appends and deletes several display boxes.
• A Distribution platform script that contains `Capability Analysis(0)` no longer prompts you to enter spec limits.
• JMP does not close abruptly when you add elements to a `Number Col Box()`.
• When code folding is enabled in the Script Editor preferences and the cursor is in an incomplete statement that contains a code folding keyword, the script runs as expected.
• `Delete Rows` now returns the number of rows. Previously, it returned nothing. Note that this is a compatibility issue. You might need to update your scripts.
• `Try()` catches the error that is displayed for display boxes that require a title but don’t have one. `Button Box()` without a title previously interpreted the missing title argument. Now it displays an error. Note that this is a compatibility issue. You might need to update your scripts.
• The results of the `SVD()` and `Sparse SVD()` functions now match.