# Why JMP®?

Visual, interactive statistics

JMP lets you explore data more fully with powerful statistics, discover meaningful findings by digging deeper into your data and share your discoveries with interactive visualization.

Read on to see how JMP takes you step by step from data to discovery with its rich analytic workflow.

JMP data analysis software from SAS is the tool of choice for scientists, engineers and other data explorers in almost every industry and government sector. JMP combines powerful statistics with dynamic graphics, in memory and on the desktop. Interactive and visual, JMP reveals insights that raw tables of numbers or static graphs tend to hide.
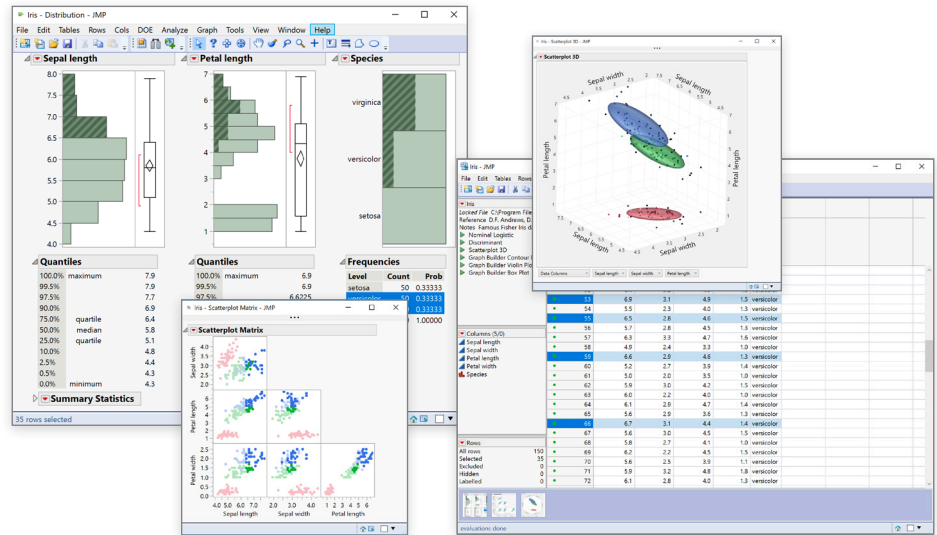
JMP links interactive data visualization with powerful statistics, in memory and on the desktop, helping you explore your data and easily share the story of your findings.

Because everything is linked – the graphics, statistics and data – JMP encourages you to dig deeper and ask more questions, improving your chance of making breakthrough discoveries in your data. With JMP, analyses unfold, driven by what the data reveals at each step. You can explore your data without leaving the analysis flow or having to rerun commands as new questions arise.

JMP brings your data analysis to a whole new level, letting you tackle routine and difficult statistical problems more easily and communicate your findings more effectively.

Expedite data access

Your data comes in many forms. Fortunately for you, JMP is hungry for data.

JMP allows you to import multiple files into a single JMP data table with just a few clicks. Or, easily read from Microsoft Excel using the Excel Import Wizard or from text files using the Text Import Wizard. You can also pull data directly from ODBC-compliant databases using the interactive Query Builder or use the HTTP Request function to write custom applications to communicate with external web servers. Whatever the format, JMP is ready.

Databases allow organizations to catalog massive amounts of data and information, but this means that the data you need for analysis is often scattered across multiple tables. Joining those tables to assemble the data you need can make for significant work and require you to learn not only the details of the data tables, but also how to use SQL or other tools to join them.

Enter Query Builder, the interactive JMP platform that requires no SQL coding. Using this JMP platform, you specify only the primary table and one or more secondary tables, and Query Builder automatically matches foreign keys in the primary table to primary keys in the secondary tables. So joining is no longer a laborious process – it becomes automatic.

Combined with automatic matching, Query Builder has everything you need to build your simple or complex query.

JMP also lets you import and sample data from other sources, including:

- SAS®.
- Many types of flat file sources (e.g., text, PDF, HTML, SPSS data, Minitab portable worksheet, XML and JSON).
- Webpages (HTML tables).

In all cases, importing data into JMP is an interactive task, and the software reacts to changes you make during the process. So a file imported into a JMP table is preformatted and is as close as possible to analysis-ready, saving you time and effort.

Minimize data drudgery
How much time do you spend preparing your data for analysis? For many data analysts this is a constant chore. JMP has long respected this fact and worked to make data preparation easier, faster and more reliable.

No matter what your data cleaning tasks, JMP automates the process. What is hard or even impossible in other software is easy in JMP. And even if you can't clean your data directly, JMP includes methods to minimize the impact of data problems on your analysis, often eliminating the need (and effort required) to make your data pristine.

Once your data resides in a JMP table, you can take advantage of rich reshaping and restructuring tools, merge all of your data into a single file, and easily perform intelligent and interactive table joins. You can also reference data in another table
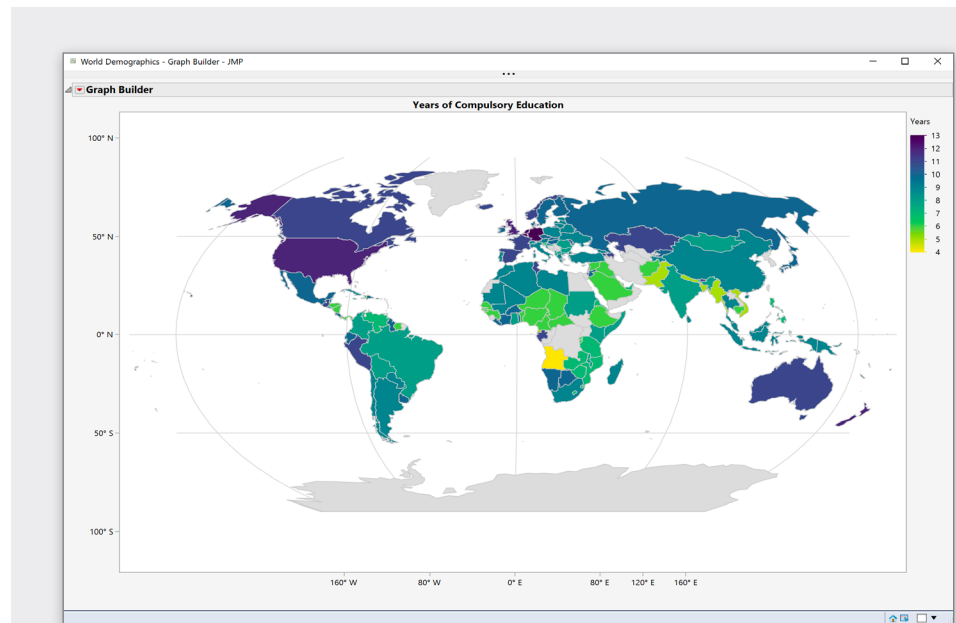
Use Graph Builder to create interactive maps of US states and counties, as well as other countries and provinces around the world. JMP includes these shape files, and you can use others or create custom maps.

without joining the two tables, thus avoiding the memory and data storage issues that accompany joining large data sets.

Before you analyze your data, you should check to make sure it is clean, that the values are consistent and encoded well. JMP offers many ways to do this. One of the best is with the Distribution platform. If you spot outliers, simply grab them and they are selected in the table, thanks to dynamic linking in JMP.

Having a visual interface to your data is a powerful advantage of JMP. You will soon wonder how much you were missing before you were able to immediately grab what you see in your data.

When many different individuals enter categories, naming can become inconsistent. To accurately tabulate the categories and use them for prediction, they must match up consistently. JMP has a Recode utility to make consolidation of categories easy rather than time-consuming. You can select a set of categories and choose which of them to make representative of the group. You can also tell JMP to automatically consolidate categories that are very similar to each other. This can be a time saver, especially when there are hundreds or thousands of unique entries.

Other tools for data cleanup in JMP include:

- Screening for outliers.
- Screening for entry errors, error codes or missing values/missing value codes you might not have accounted for in your data.
- Creating formula columns or derived variables (feature creation); ratio columns or response transformations.
- Data property cleanup.
- Binning continuous data into discrete categories.
- Splitting strings of delimited text into multiple columns.
- Making indicator variables.
- Standardizing attributes across many similar-type columns.

Make compelling data visualizations
Spreadsheets don't easily reveal patterns and trends in data sets, yet seeing patterns helps you make discoveries. JMP provides rich and dynamic visualization tools, making statistical discovery easier and more effective, leading to innovation.

JMP frees you from the narrow path so you can explore your data dynamically and allow it to tell you what is interesting. Move through your data quickly and with agility until you find the visualization that best communicates the story in your data.

Graph Builder is the best way to begin exploring and graphing your data. Interactively build simple or complex graphical displays just by dragging and dropping. Simply drag the variables into position, choose the graph element from an icon palette, and customize the display to get your final, publication-quality result. Graph Builder always gives you options that make sense for your situation.

You can also add background maps to all relevant JMP graphs using high-quality, built-in geographic images, or plot data on street-level maps that include cities, roads and bodies of water. With Bubble Plot, you can create animated data movies, showing changes in many dimensions over time.

Dynamic linking perhaps best illustrates the magic of JMP. You can select elements from any graph and instantly see the selection propagate to multiple views, yielding insights that other software simply can't reveal.

Sometimes multiple graphs combined can be more compelling than a single graph. That's where dashboards give you the ability to communicate the story of your data with a persuasive, presentation-ready visualization. JMP gives you the ability to build a dashboard with just a few clicks using built-in templates as a starting point for your dashboard or developing your own dashboard views.

Once you begin to visualize your data, you'll want to store your results and prepare them for presentation. Journals help you capture the journey of your analysis and follow the process without depending on external files. You can copy and paste specific reports, graphs or dashboards into your journal to reference for yourself or to present to other users. And, you can save your journals in Word, PDF, or HTML format to fit your presentation preference.

As you work, managing your JMP session and workspace is easier with a Project, which provides a single document interface with a tabbed interface that is easy to customize.

When many data tables, scripts and reports are open at once, it can be challenging to find a desired report or separate groups of data tables and reports into individual analysis projects. Projects are a place to access bookmarked files (e.g., PDF, Word or PPT files) and navigate open windows, data tables or scripts. You can also use Projects to quickly open and close many files belonging to one or more analyses and to save the state of an analysis session. If you need to run repeated data queries, analyses and reports, Projects offer a quick way of collecting a set of workflow tasks and share, save and collaborate.

Perform basic data analysis

Frequently, your first step in a statistical data inquiry consists of investigating variables one at a time, a process known as univariate analysis. In JMP, once you've identified the columns that interest you, the Distribution platform automatically provides graphs and statistics based on the variable's defined modeling type.

Quickly get histograms, summary statistics, box plots and quantiles for continuous data, capability analysis, distribution fitting and frequencies for nominal or ordinal values.

Key capabilities in JMP for basic statistical analysis include:

- Histograms, box plots.
- Descriptive statistics.
- One- and two-sample t-tests, ANOVA, regression, nonparametric tests.
- Distribution fitting.
- Fitting splines and curves to data.
- Statistical calculators and simulators; power and sample size calculation.

Create structure for unstructured data – Text Explorer

Text data doesn't easily lend itself to analysis. It can be uncompromising, unstructured and unruly. JMP Text Explorer offers you a set of highly interactive commands that allow you to perform word and phrase extraction, create summaries, and visualize and organize words to uncover the latent information available in your mass of unstructured text data.

Group and filter data with ease

In any business, the quicker you can learn and adapt to ever-changing customer needs, the quicker you can get ahead of your competition. To accelerate this learning cycle, you need to be able to notice patterns
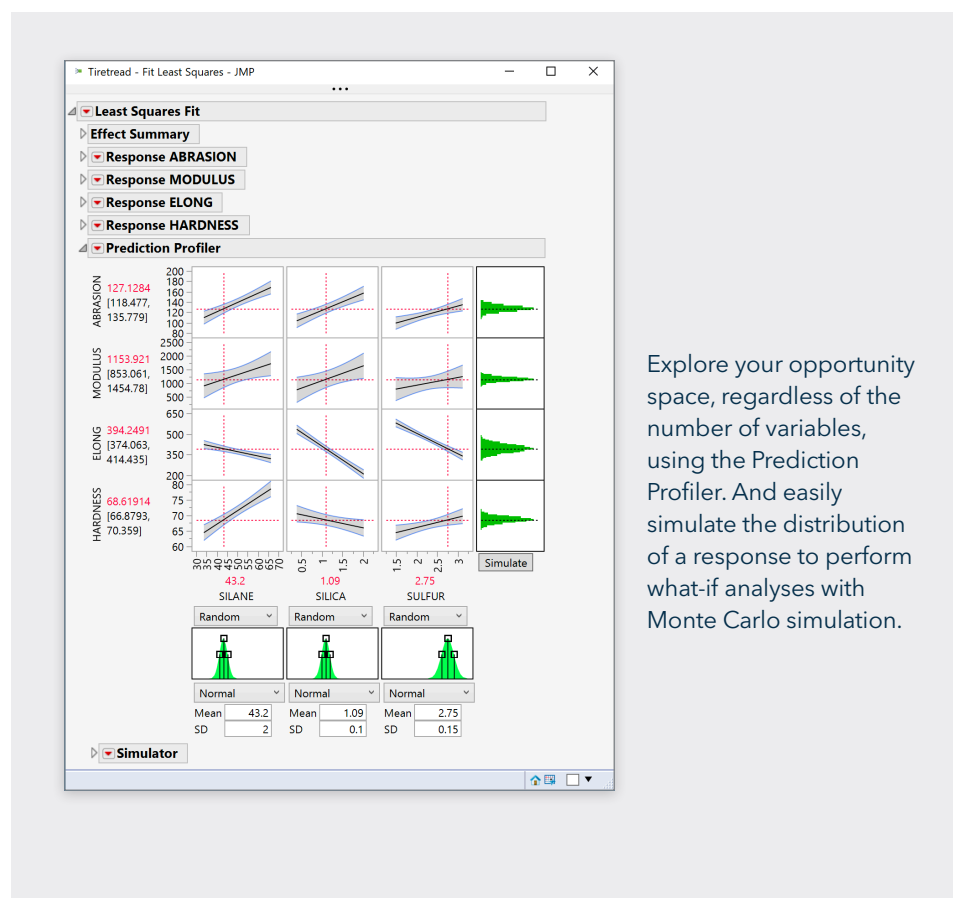
Explore your opportunity space, regardless of the number of variables, using the Prediction Profiler. And easily simulate the distribution of a response to perform what-if analyses with Monte Carlo simulation.

in your data, focus on the most important, and act quickly. You can't waste time generating a stack of reports to wade through, or worse, writing custom code and waiting for output before acting.

JMP brings a different approach to the daily task of slicing and dicing data. Its grouping and filtering paradigm allows for instant, in-memory recasting of report output. Imagine how quickly you can focus on interesting areas when you can update reports on the fly just by clicking through levels of a categorical variable. With one click, you can even switch the analysis focus to a new metric entirely.

Grouping and filtering tools in JMP include:

- Local and global data filters for focusing on specific parts of your data table, with or without conditional statements. The ability to save favorite filter settings brings efficiency to routine filtering tasks.
- Easy-to-define row markers, image column markers, colors and labels that enrich graphical reports and data tables.
- Column Switcher for swapping variables within a graphical or statistical report. Stepping through variables manually or

by animation allows you to spot patterns and anomalies when you have hundreds of variables.

- Easy creation of By variables in many analysis platforms generates multiple copies of the same analysis; multiple subset analysis in a single click.
- Transforms for generating derived variables on the fly. Stay in the flow while you are analyzing data and create many statistical or mathematical transformed columns of your data with a single click.
- Graph filtering. Use a graph to filter another graph.

Use world-class design of experiments

Many organizations rely on "A-B testing" for experimental design, but testing one situation against another with many factors in flux is a very slow way to learn about your business.

In contrast, design of experiments (DOE) in JMP offers a proven and practical approach for exploring and exploiting the multifactor opportunities that exist in almost all real-world situations. Using multifactor
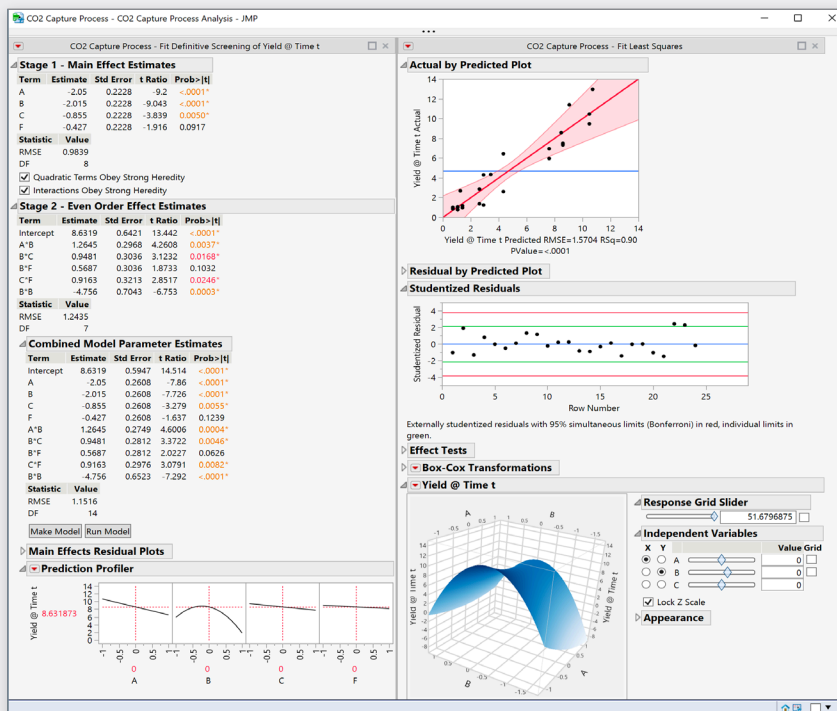
experiments, you learn more quickly, at minimal cost, by teasing out not just the effect of an individual factor, but also the combined impact of two or more factors. JMP offers leading-edge capabilities for design of experiments, so you can design the best experiments to answer specific questions. JMP also offers a rich set of analyses tailored to your design in a form you can easily use.

Instead of fitting your problem to a textbook design, you fit the design to your problem with the budget you have. The unique Custom Designer constructs an optimal design for your problem, taking into account specific conditions such as time, budget and other experimental constraints.

Many analysis problems include hard-to-change variables, such as the temperature of a reaction vessel or the location of a cornfield. A completely randomized design would require such factors to be reset after each experimental run, which is clearly impractical or cost-prohibitive. The design most appropriate in such situations is a split plot, and JMP can generate I-optimal split-plot, split-split-plot and strip-plot designs. JMP also includes the correct random-effect restricted maximum likelihood (REML) model in the table that contains the experimental worksheet to make the analysis rigorous but also straightforward. No other commercial software package offers this level of flexibility with split-plot designs.

In addition to Custom Designer, JMP also supports classical (textbook) full factorial, screening (fractional factorial), block, response surface, nonlinear and mixture designs, Balanced Incomplete Block Designs (BIBDs), Group Orthogonal Supersaturated Design (GO SSD), as well as advanced designs, including accelerated life tests and designs for computer simulation, such as cluster-based, space-filling designs that allow for inequality constraints on factors.

Also, JMP is the first software package to implement definitive screening designs. The most important new class of designs in

CO2 Capture Process - CO2 Capture Process Analysis - JMP

CO2 Capture Process - Fit Definitive Screening of Yield @ Time t

Stage 1 - Main Effect Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
A	-2.05	0.2228	-9.2	<.0001*
B	-2.015	0.2228	-9.043	<.0001*
C	-0.855	0.2228	-3.839	0.0050*
F	-0.427	0.2228	-1.916	0.0917

Statistic	Value
RMSE	0.9839
DF	8

☑ Quadratic Terms Obey Strong Heredity
☑ Interactions Obey Strong Heredity

Stage 2 - Even Order Effect Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8.6319	0.6421	13.442	<.0001*
A*B	1.2645	0.2968	4.2608	0.0037*
B*C	0.9481	0.3036	3.1232	0.0168*
B*F	0.5687	0.3036	1.8733	0.1032
C*F	0.9163	0.3213	2.8517	0.0246*
B*B	-4.756	0.7043	-6.753	0.0003*

Statistic	Value
RMSE	1.2435
DF	7

Combined Model Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	8.6319	0.5947	14.514	<.0001*
A	-2.05	0.2608	-7.86	<.0001*
B	-2.015	0.2608	-7.726	<.0001*
C	-0.855	0.2608	-3.279	0.0055*
F	-0.427	0.2608	-1.637	0.1239
A*B	1.2645	0.2749	4.6006	0.0004*
B*C	0.9481	0.2812	3.3722	0.0046*
B*F	0.5687	0.2812	2.0227	0.0626
C*F	0.9163	0.2976	3.0791	0.0082*
B*B	-4.756	0.6523	-7.292	<.0001*

Statistic	Value
RMSE	1.1516
DF	14

Make Model | Run Model

Main Effects Residual Plots
Prediction Profiler
Yield @ Time t 8.631873

CO2 Capture Process - Fit Least Squares

Actual by Predicted Plot
Yield @ Time t Actual
Yield @ Time t Predicted RMSE=1.5704 RSq=0.90
PValue=<.0001

Residual by Predicted Plot
Studentized Residuals
Studentized Residual
Row Number

Externally studentized residuals with 95% simultaneous limits (Bonferroni) in red, individual limits in green.

Effect Tests
Box-Cox Transformations
Yield @ Time t

Response Grid Slider 51.6796875
Independent Variables

X	Y		Value Grid
●	○	A	0
○	●	B	0
○	○	C	0

☑ Lock Z Scale
Appearance

Use the world-class capabilities in JMP for design of experiments.

recent years, definitive screening designs are used to efficiently and reliably separate the vital few factors that have a substantial effect from the trivial many that have negligible impact. Definitive screening designs allow you to get information about main effects, curvature effects and two-way interactions at the same cost as traditional, two-level screening designs.

With JMP, you can conduct design comparisons of two or more experiment designs. This feature is a great way to easily compare and report on multiple designs, generated by JMP and/or another software application capability. Also, if you need to integrate additional runs, you can use the augment designs feature to optimize your overall design.

Find the best fit

By making a useful separation of data into signal and noise, statistical models encapsulate trends and patterns so you can better learn about your business, your competition and your customers.

Building useful models is part science and part art, and JMP includes an array of statistical platforms to help you build useful models of your data. With methods for revealing relationships among variables in a process, JMP allows you to not only make predictions but also to identify settings for factors that yield the best performance. JMP includes a variety of ways to fit linear and nonlinear models to help you make correct decisions, whatever relationships your data shows.

At the heart of the JMP model-fitting toolkit is the Fit Model platform. Fit Model lets you construct model terms and select from different methods, including standard least squares fitting, stepwise and all possible models. Build models with drag-and-drop using interactive model editing. You can also build other models, such as MANOVA, repeated measures, generalized linear, loglinear variance or logistic regression (nominal and ordinal).

JMP also fits mixed models with random effects using REML and includes advanced
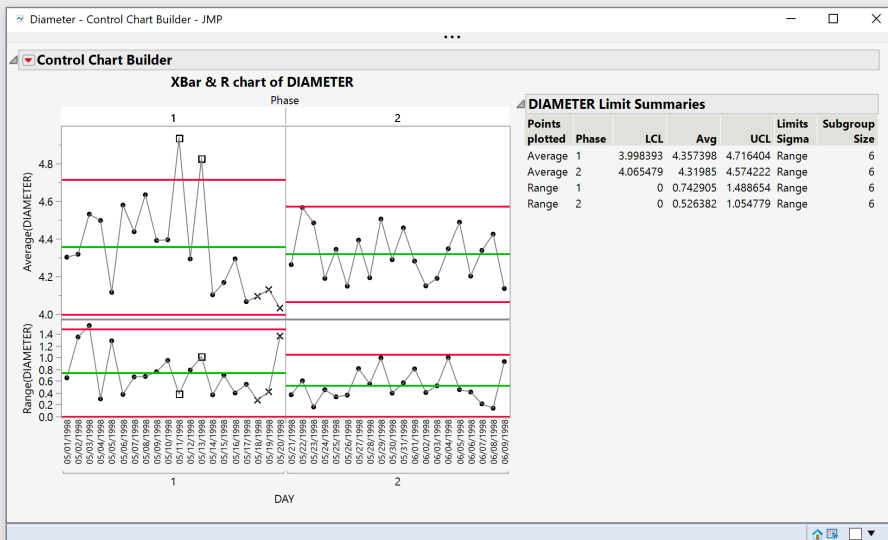
Understand process data quickly with the drag-and-drop flexibility of the Control Chart Builder. Create natural groupings visually to spot patterns and solve problems.

multivariate modeling techniques: principal components, multiple correspondence analysis, partial least squares, cluster, item analysis, partition models and more.

The Fit Y by X platform is intended for modeling dependencies between a single input and a single response or outcome. This platform supports simple linear regression, logistic regression, ANOVA, ANOM and contingency analyses. It responds to the modeling types of the variables used, and so unifies many commonly used methods if you don't need the control that Fit Model offers.

JMP helps you build models with many columns by providing automated options for screening for change when facing thousands of Y's with respect to a single X.

Modern significance adjustment techniques – such as the false discovery rate – help you draw useful conclusions.

The JMP Fit Curve platform allows you to fit a large number of models to your data. The software's built-in library makes it particularly simple to fit popular bioassay and pharmacokinetic models. By defining appropriate formula columns, you can fit virtually any model.

Advanced model-fitting capabilities in JMP include neural network models (the Neural platform) and decision trees (the Partition platform).

Explore your opportunity space

Building models is useless unless you can motivate change. JMP lets you

"When I first walked in the door at Diebold Nixdorf, they [were measuring and running a number of] analyses with Excel, but to go to that next level, they needed a more powerful tool – something that lets you say, 'OK, we're measuring all these things that have happened in the past and we're seeing how we're getting better or what's being missed.' JMP is what has helped us be able to see the big picture more clearly and in real time."

Tyler Wise
Project Analyst, Global Business Services – Diebold Nixdorf

Develop dashboards for presentation-ready visualizations of your analyses.

communicate model results and perform what-if or scenario analysis visually to understand the pattern of predicted response and how each factor affects it. In JMP, you explore this response surface visually through the Profiler, a dynamic tool for interacting with your model no matter how it was built. The Profiler lets you view the effect of a factor on the predicted response and shows a cross-section of the response surface.

With JMP, you can also:

- Set up desirability functions for responses and then find the optimal settings of factors that maximize outcomes across the responses. Or interactively explore trade-offs in your responses such as cost and yield.

- Use Monte Carlo simulation techniques to predict risk when distributions of responses are uncertain. Choose from a variety of different random distributions for continuous variables, random probabilities for categorical variables, and easily save results of the simulation to a data table in a single click.

- Fill an opportunity space that you can then filter to show the feasible region.

- Share your what-if analysis even with people who are not yet using JMP via interactive HTML or publishing to JMP Live.

Predict product reliability
Preventing failure and improving warranty performance are two of the most important reasons for understanding the performance of your products over time. JMP helps you pinpoint defects in materials or processes; it also helps identify design vulnerabilities so you can understand how best to correct them.

If you need to determine the most appropriate distribution to use for making reliability lifetime predictions on your products and components, then let JMP automatically evaluate a large range of reliability distributions to find the best fit. With Life Distribution analysis, you can specify a nonparametric distribution, as well as numerous parametric distributions, and compare fits visually.

JMP includes a rich set of capabilities for reliability analysis:

- Fitting life distributions, including distributions with one factor (e.g., accelerated failure models).

- Performing recurrence analysis of repairable systems.

- Modeling product degradation; destructive degradation.

- Estimating survival, parametric survival and proportional hazards models.

- Designing accelerated life test (ALT) experiments.

- Performing Crow-AMSAA analysis for reliability growth.

- Forecasting warranty returns from failure data.

- Studying similar systems using concurrent system analysis.

- Using parallel system analysis to analyze and compare reliability growth for multiple independent systems, by system and/or phase.

Enable continual improvement
The market demands continual improvement, which is why you strive to accelerate time to market, protect your brand by minimizing customer complaints, and deliver products and services that consistently meet or exceed customer expectations. JMP has the necessary tools to be at the heart of your quality program, providing a wide range of relevant graphical and statistical capabilities.

Monitor processes with the full set of control chart types in JMP or build control charts interactively with drag-and-drop tools in the unique Control Chart Builder. With a workflow analogous to Graph Builder, Control Chart Builder lets you perform what-if analyses with your process data and explore many subgroup and phase variables and their effects on your processes. You see problems in ways that are impossible using static control charts.

Use the Process Screening platform to monitor thousands of processes and identify ones that require targeted focus. Or, use the Model-Based Multivariate Control Chart platform to explore relationships among multiple parameters for a thorough understanding of your process performance.

The Measurement Systems Analysis platform supports multiple analysis methods, including Donald J. Wheeler's Evaluating the Measurement Process (EMP). Other quality analysis features include provisions to perform Gauge R&R studies and create Pareto charts. You can easily visualize sources of variation in your measurement process, evaluate product defects and monitor processes for stability. JMP also lets you investigate out-of-control conditions and perform root-cause analysis.

Understand consumer preferences

No matter what role you play in the process, marketing is complex and rapidly evolving, driven by the influx of digital technologies. Yet key business issues endure: the need to find the most profitable growth opportunities, develop the best products and services, take the best marketing action and maximize cross-business impact.

Whether you are conducting exploratory, descriptive or causal research using primary or secondary sources, JMP provides a comprehensive repertoire of tools for quickly and easily getting value from metric and nonmetric quantitative data.

Capabilities for performing consumer research include:

- Modern data mining techniques to build predictive models of transactional data.
- Categorical (survey) data analysis.
- The ability to import data in many external file formats, including SPSS and Triple-S.
- Single-click analysis of simple, related, multiple and structured response survey questions.
- Choice experiments to optimize product design based on consumer feedback.

- Factor analysis.
- Segmentation and clustering (k-means and hierarchical).
- Multiple correspondence analysis.
- Multiple Factor Analysis (sensory analysis).

No matter what your level of statistical expertise, JMP helps you find new consumer insights and communicate findings to other stakeholders to drive consensus and action.

Communicate results clearly

Once you have completed your analyses, employing basic tools for visualization is often the best way to communicate results, see the value of your data and motivate action. The interactivity of JMP gives you the tools to share the meaning in graphs and not just the graphs themselves.

The Profiler, for example, lets you share the meaning of your models in ways that become immediately interpretable and useful. The person viewing your graphics in JMP knows what is in your data, and can ask questions and gain a deeper understanding of your findings and your models.

To communicate findings to people outside of JMP, your options are equally diverse. Share JMP visualizations to Graph Builder for iPad® and explore them on the go. Generate PowerPoint presentations in a single click, or generate interactive output of many JMP reports that can be viewed quickly in any device with a browser. JMP can also create presentation- or publication-ready graphics in a multitude of file formats. JMP generates animated .GIF graphs that can be added on the web or embedded in PowerPoint slides.

Dashboards are a fast and easy way to show your results. Use the drag-and-drop Dashboard Builder feature to aggregate JMP reports into a presentation-ready dashboard. Quickly surface selection filters in a single click to use one graph to filter another graph.

Provide extensibility via scripts

Buying software that cannot grow beyond your initial needs leads to early obsolescence and expensive replacements. JMP includes many ways to customize and extend the software to address the challenges that arise as usage grows and your organization evolves.

The rich JMP Scripting Language (JSL) lets you work interactively and save results for reuse. Power users can develop new functionality to solve problems that core JMP does not address. These custom scripts can even integrate capabilities from other applications, including SAS, MATLAB, R and Python.

With the automation and scripting tools in JMP you can also:

- Save scripts to regenerate analysis reports without having to write code.
- Use saved scripts in a data table for reproducibility; save the analysis steps for yourself or to explain your workflow to others.
- Develop completely new things. JMP Scripting Language and scripting tools in JMP make it possible to attain things that we haven't even dreamed of.

"I've never seen any single software application as transformative to scientific learning as JMP. With JMP you start seeing patterns and relationships in your data you never thought possible. It takes the guesswork and mystery out of statistics."

Timothy Gardner
CEO and Founder
Riffyn Inc.

After writing scripts, use the JSL debugger to step through each line of code, interactively examining variables to determine what might be preventing a script from performing its intended function. Use the JSL Profiler to fine-tune a script's performance and iteratively optimize your code for peak efficiency and speed.

Make JMP® your own

It's easier to work productively if you can configure your software to work the way you think. Consistent settings, graph output and even color palettes mean fewer steps to understanding data. JMP gives you a comprehensive set of preferences to control fonts, graphic options and detailed settings within platforms. It's analysis the way you like it. You can even display only those analytic tools and menus you use routinely. In fact, you can customize every aspect of JMP, including:

- Graph axis settings, styles, graphs and colors.
- Statistical and graphical elements presented in a JMP report.
- Import settings that can be predefined to take in new data in a form you can use immediately.
- Your environment for scripting and application development.

Integrate JMP® in your analytics toolkit

As a member of the SAS family, JMP offers a seamless interface to the unparalleled capabilities of SAS. The deep analytics, reporting and data management capabilities of SAS extend capabilities of JMP desktop software to the server, the cloud and beyond. JMP can use the SAS Cloud Analytic Services (CAS) public API to connect with an analytics framework that can run in the cloud, act as a cloud and provide best-in-class analytics. You can also use JMP with other analytic tools, including a full interface to the power of MATLAB, complete calling interface to DLLs and the rich set of specialized libraries in R and Python. JMP makes it easy to reach out to these resources and bring back results for dynamic data visualization and analysis. Or you can seamlessly integrate an algorithm or function into the JMP workflow, making SAS, MATLAB, R or Python feel like part of JMP.

Does your data live in spreadsheets? With the JMP add-in for Microsoft Excel, you can easily move data from Excel into JMP or bring the power of the Profiler for JMP to your spreadsheet models, enhancing the data with the advantages of JMP visualization.

Operating system guidelines

JMP runs on Microsoft Windows and macOS. It includes support for 64-bit systems.

Do you need JMP® Pro?

JMP Pro is the advanced analytics version of JMP that lets you understand the data you have now to better anticipate results and act with confidence, even when data sets are large, messy or incomplete. Learn more at jmp.com/pro.

JMP® Live takes collaboration to the next level

JMP Live is the secure online portal that takes the robust statistics and visualizations in JMP and extends them to the web for simple collaboration and solid decision making. Find out how your organization can use JMP Live at jmp.com/live.

To contact your local JMP office, please visit: jmp.com/offices

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