Statistical Discovery.™ From SAS.

JMP 14 ROAD SHOW

SELECTED TOPICS

MAJUG WEBEX
JUNE 12, 2018

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Agenda

- JMP Learning Resources with Links
- My favorite new capabilities in JMP 14
  - Find Duplicates
  - Distribution – hover info gives number ***selected*** as well as number in bin
  - Graph Builder: Packed Bars – Jitter – Custom Error Bars – Map Shape Clipping
  - Images as Markers (Columns as Markers)
  - Animated GIF files
  - Import Multiple Files – e.g. text or images
  - “Create Web Report” is now “Publish” & Moved from “View” to “File” menu
  - JMP PRO - Automated Data Imputation
  - JMP PRO - GenReg Multinomial Response
  - Review “What’s New in JMP 14 Journal?” - pairs with 17 short recordings
  - New Project (replaces old Project)
  - Functional Data Explorer – New Platform in JMP Pro

Statistical Discovery.™ From SAS.

JMP® LEARNING RESOURCES

UPDATED WITH NEW LINKS TO JMP 14 CONTENT

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www.jmp.com

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› Getting Started with JMP

This live webcast on Fridays shows you the basics of JMP in one hour. For new users or anyone who needs a refresher.

› Mastering JMP

A webcast series for JMP users of all experience levels who want to build their analytic skills.

› New User Welcome Kit

You just got JMP. Now get ready to explore your data by following our learning road map.

› JMP Training from SAS

We offer courses at all levels to help build your knowledge and skill set.

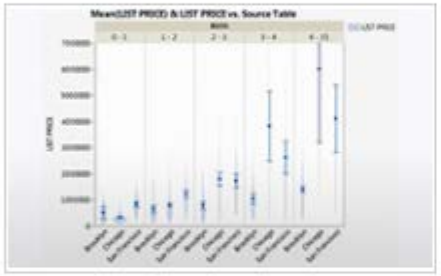
OTHER RESOURCES

- › Books and JMP
- › Case Study Library
- › JMP Blog
- › Learning Library
- › On-Demand Webcasts

www.jmp.com

www.jmp.com/mastering

Note Basic, Int., & Adv. Tabs



Basic Analysis and Plotting

See, in this case study about housing prices in three cities, how to visualize data to make analyses accessible to statisticians and non-statisticians.

Presented by: Julian Parris

Basic Design of Experiments

Using a model-oriented approach, JMP generates solutions to address virtually any DOE challenge.

Presented by: Tom Donnelly

www.jmp.com/mastering

www.jmp.com/mastering

17 videos, 2-to-13 minutes in length – Pick your own order to view What's New!

› New in JMP 14 and JMP Pro 14

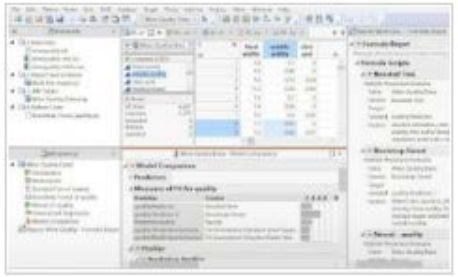
JMP 14 and JMP Pro 14 include enhancements and new statistical and analytic capabilities that help you visualize, examine and model data about your products, processes and customers.

Presented by: Brady Brady

Under Basic Tab

https://www.jmp.com/en_us/events/ondemand/mastering-jmp/new-in-jmp-14-and-jmp-pro14.html

52-minute video showing in depth how to use the new Project in JMP 14



› Organizing Your Work Using JMP Projects

JMP 14 Projects help you organize large numbers of analyses and reports. See how to construct a workspace that avoids overlapping or concealing JMP windows that you can minimize and maximize. Save reports and window layouts with the Project to display intact when the Project is reopened.

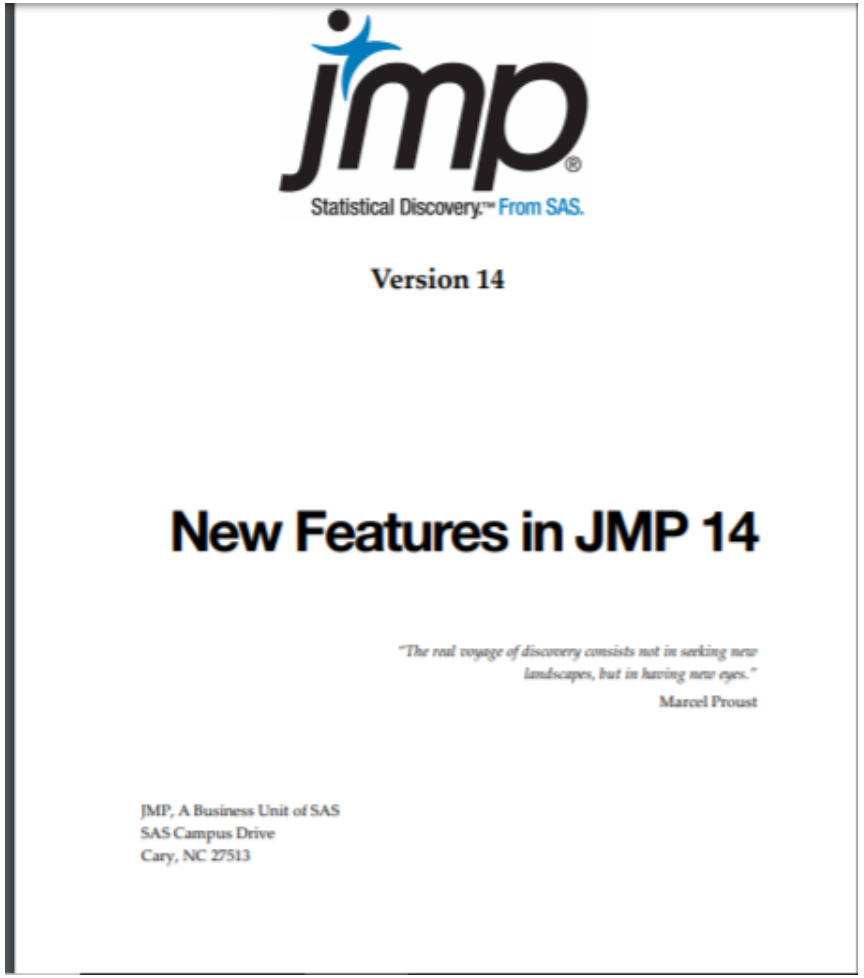
Under Advanced Tab

https://www.jmp.com/en_us/events/ondemand/mastering-jmp/organizing-work-using-projects.html

John Sall's Discovery Summit Europe 2018 Plenary Presentation Introducing JMP 14

https://community.jmp.com/t5/Discovery-Summit-Europe-2018/Plenary-Session-John-Sall-Projections-and-Encapsulations/ta-p/53175

Help > New Features



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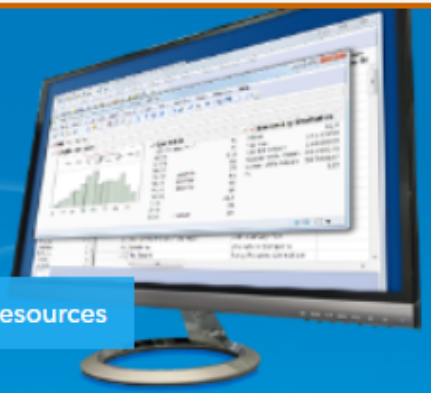
Getting Started With JMP®

HELPING YOU USE JMP® RIGHT FROM THE START

Overview | Live Webcast | On-Demand Webcast | New User Welcome Kit | More Resources



JMP® New User Welcome Kit

Your Complimentary Introduction to JMP

The New User Welcome Kit is designed to help you quickly get comfortable with the basics of JMP. You'll complete its thirty short demo videos and activities, build your confidence in using the software, and connect with the largest online community of JMP users in the world.

Other supported languages:

› German

Register Now

FIRST NAME *

LAST NAME *

www.jmp.com/welcome

www.jmp.com/academic

Resources for Learning and Using JMP®

Getting Started Videos
Designed for new users, learn how to navigate and use JMP.

Live Academic Webinars
Live webinars on a variety of topics, by academics for academics.

Academic Webinar Library
Recordings of academic webinars, with journals and datasets.

Learning Library
One-page guides, short how-to videos and tutorials.

Case Study Library
Real world examples with exercises for teaching and learning.

Course Material Library
Course collections, eLearning courses for schools with site licenses, and JMP teaching materials from SAS Education.

Books with JMP
Textbooks, other books with JMP, and textbook add-ins with datasets.

Interactive Learning Tools
Interactive tools for exploring statistical concepts.

AP Statistics Resources
Resources for AP Statistics and secondary schools.

Student Assessment
Interactive JMP questions to improve student engagement using WebAssign's online assessment questions.

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JMP® Learning Library

Tools to get you started learning JMP.

Basic instructions on how to get the most out of JMP, including quick overviews, videos, and step-by-step tutorials*.

Choose a category below to get started.

- Using JMP
- Graphical Displays and Summaries
- Probabilities and Distributions
- Basic Inference - Proportions and Means
- Correlation and Regression
- Time Series
- Multivariate Methods
- Mixed Models and Repeated Measures
- Data Mining and Predictive Modeling
- Quality and Process
- Reliability and Survivability
- Designed Experiments
- Using SAS from JMP

- Download all the One-Page Guides combined into one PDF.

https://www.jmp.com/en_us/learning-library.html

www.jmp.com/books

Books and JMP

New Users | Intermediate and Advanced Users

› JMP Documentation

by SAS Institute

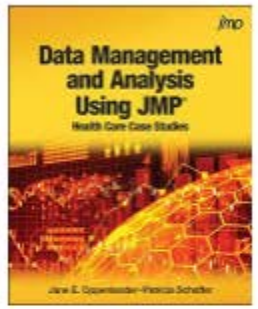
2016 (SAS Institute)

› JMP Essentials: An Illustrated Step-by-Step Guide for New Users, Second Edition

by Curt Hinrichs, Chuck Boiler

2014 (SAS Institute)

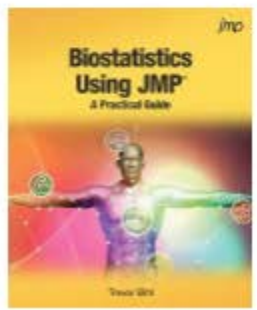
Featured Books



› Data Management and Analysis Using JMP®: Health Care Case Studies

by Jane E. Oppenlander and Patricia Schaffer

2017 (SAS Institute)



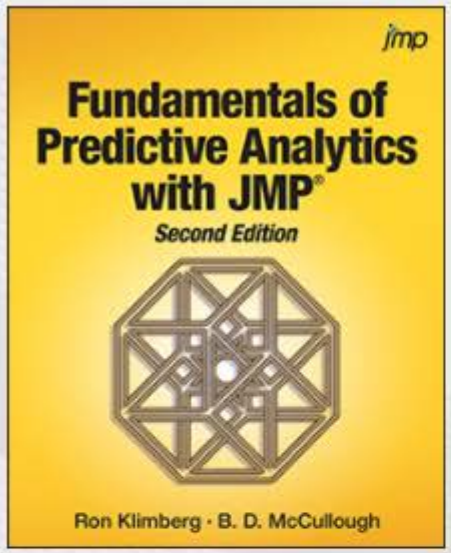
› Biostatistics Using JMP®: A Practical Guide

by Trevor Bihl

2017 (SAS Institute)

www.jmp.com/books

www.jmp.com/books



Fundamentals of Predictive Analytics with JMP®, Second Edition

Ron Klimberg
B. D. McCullough

In Stock

Publisher: SAS Institute
Copyright Date: December 2016

54.95 USD per unit

Quantity: 1

Format: Hardcopy

Add to Cart

https://www.sas.com/store/books/categories/examples/fundamentals-of-predictive-analytics-with-jmp-second-edition/prodBK_68711_en.html?storeCode=SAS_US

Help > JMP Help

? Tool

F1

- Using JMP
- Basic Analysis
- Essential Graphing
- Profilers
  - Introduction to Profilers
  - Profiler
    - Example of the Prediction Profiler
    - Launch the Prediction Profiler Platform
    - Prediction Profiler Options
    - Desirability Profiling and Optimization
      - Construction of Desirability Functions
      - How to Use the Desirability Function
      - The Desirability Profile
      - Customized Desirability Functions
    - Assess Variable Importance
    - Bagging
    - Additional Examples of the Prediction Profiler
    - Statistical Details for the Prediction Profiler
  - Contour Profiler
  - Surface Plot
  - Mixture Profiler
  - Custom Profiler
  - Simulator
  - Excel Profiler
- References
- Design of Experiments Guide

Desirability Profiling and Optimization

You can define a desirability function for a single response variable or for several response variables. When you are optimizing relative to several responses, there can often be competing criteria. For example, you might want to maximize one response, minimize another, and keep a third response close to some target value.

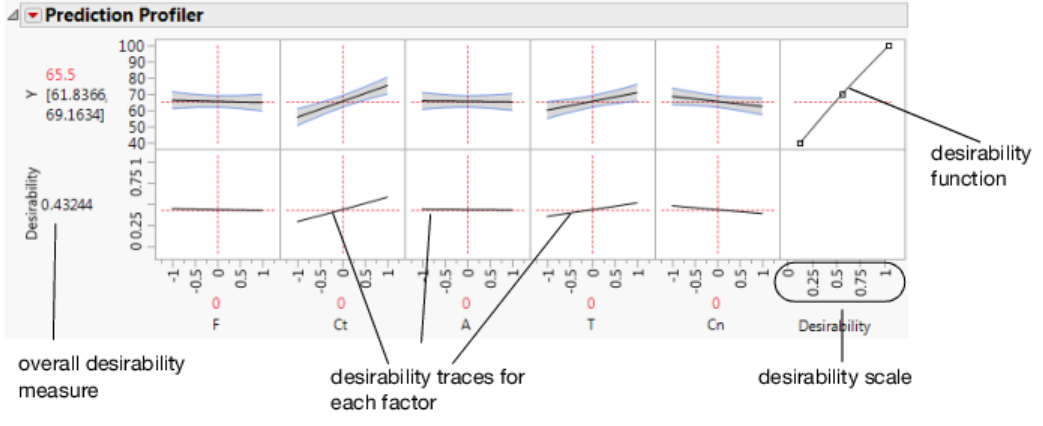
In desirability profiling, you specify a desirability function for each response. The overall desirability for all responses is defined as the geometric mean of the desirability functions for the individual responses. See Derringer and Suich (1980) for information about combining responses.

To use desirability profiling, select **Optimization and Desirability > Desirability Functions** from the Prediction Profiler red triangle menu.

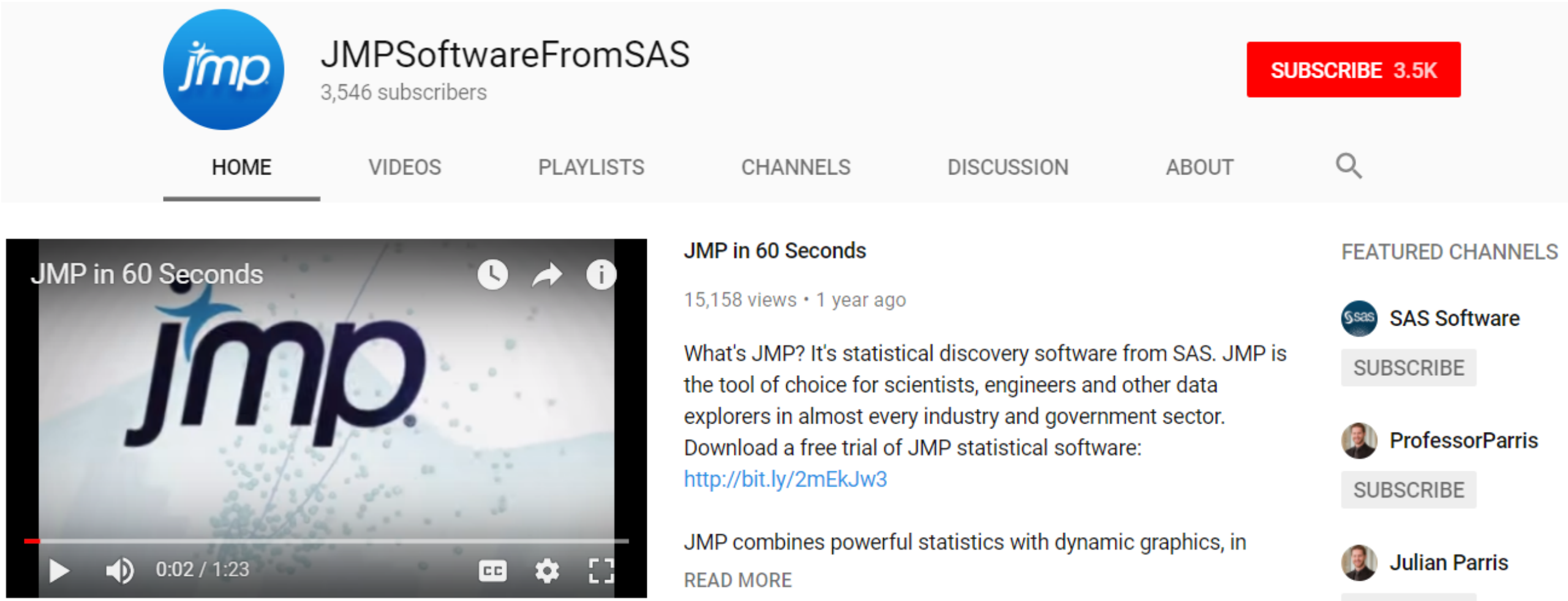
Note: If the response column has a Response Limits property, desirability functions are turned on by default.

This command appends a new row to the bottom of the plot matrix, dedicated to graphing desirability. The row has a plot for each factor showing its *desirability trace*, as illustrated in The Desirability Prediction Profiler. It also adds a column that has an adjustable desirability function for each *Y* variable. The overall desirability measure shows on a scale of zero to one at the left of the row of desirability traces.

The Desirability Prediction Profiler



www.youtube.com/user/JMPSoftwareFromSAS



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Instructors with DoD Experience

Jim Wisnowski

Jim is Principal at Adsurgo LLC and has a PhD in industrial engineering from Arizona State University with an emphasis in applied statistics. He was an award-winning professor and statistics chair at the US Air Force Academy. Jim retired from the Air Force, where he held various analytical and leadership positions throughout the Department of Defense in training, testing and evaluation, human resources, logistics, systems engineering and acquisition.

One of Jim's students said: "Jim is top-notch instructor with vast knowledge of the subject matter. As well, his experience with DoD and military methodology, tools and policy proved especially helpful in his interaction with the class. For future training, I intend to request Jim."

Heath Rushing

Heath is an American Society of Quality (ASQ) Certified Quality Engineer and the co-founder and principal consultant of Adsurgo LLC, a company specializing in advanced analytics consulting services and training for enhanced business performance. He has been a professor at the US Air Force Academy as well as a quality engineer and Six Sigma Black Belt in both biopharmaceutical manufacturing and R&D. Heath holds a master's degree in operations research from the Air Force Institute of Technology and has used JMP since 2001.

One of Heath's students said: "Heath was very professional and knowledgeable on both statistical analysis and the use of JMP software. He kept us on target and interjected a good amount of fun into the course when needed."

www.jmp.com/en_us/training/jmp-instructors.html

www.jmp.com/support

Support

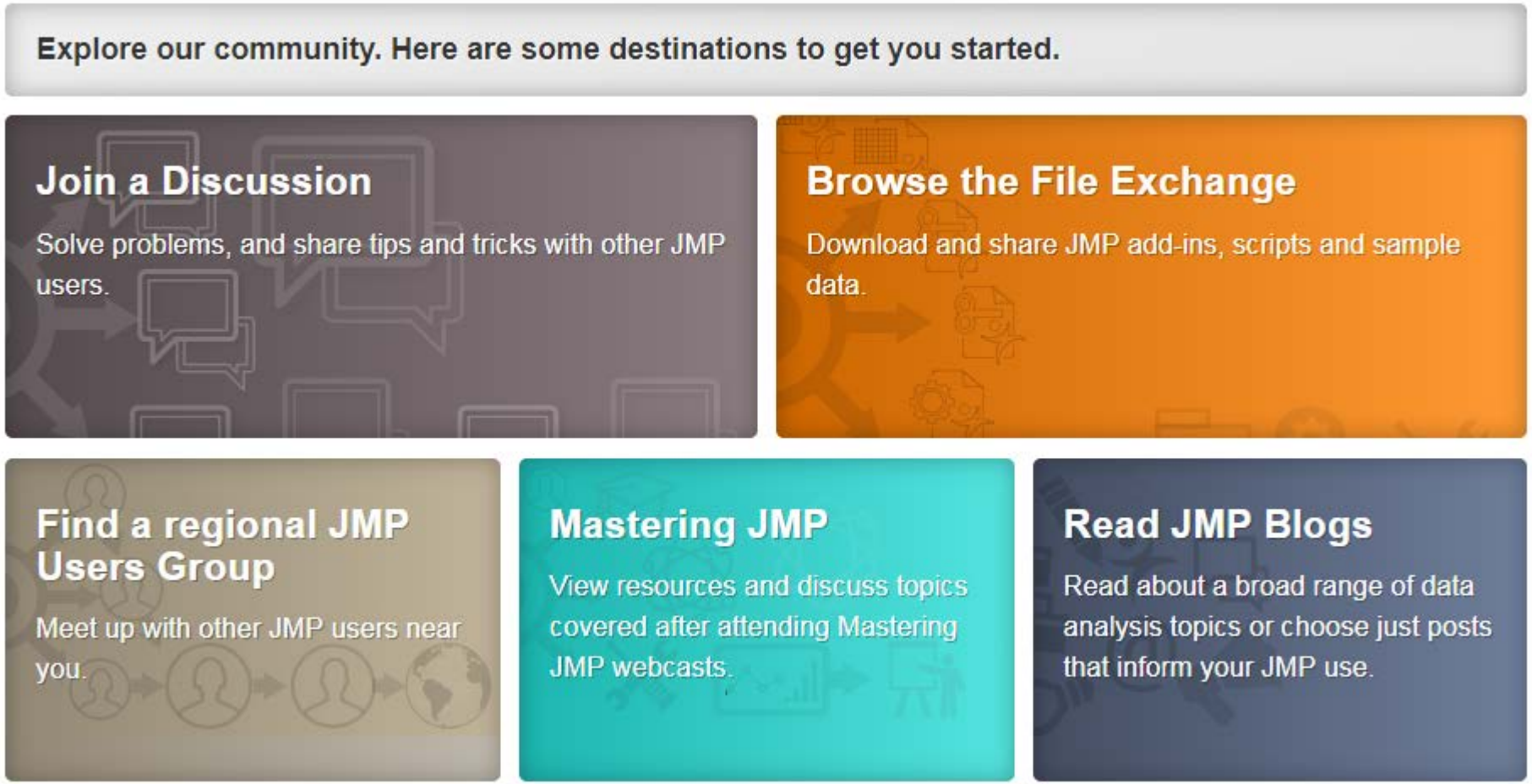
Get the Answers You Need

JMP technical support is provided by statisticians and engineers educated in SAS and JMP, many of whom have graduate degrees in statistics or other technical disciplines. At SAS, technical support is a career, not just a job.

support@jmp.com

919.677.8008

community.jmp.com



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www.google.com

www.jmp.com/fedgov

JMP Federal Government User Resources Page

NOV 11, 2014 12:16 PM (9891 views)

JMP and JMP PRO 13 Receive US Army Certificate of Networthiness (CoN) - 10 October 2017

Product Name: SAS JMP Pro 13.X and SAS JMP 13.x

CONID: 000034751

CaseID: CERT-201722055

Expires: 10OCT2020

Product Facts:

*This is an upgrade to Certificate 201519172.

*This Certificate of Networthiness includes the SAS JMP 13.x and SAS JMP Pro 13.x editions.

Submitted Date: 31Jan2017

Article Labels

Article Tags

building better models
data visualization
design of experiments doe
experimental design
fed gov federal
government models
resources

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2017 85th MORSS Tutorial Slides Available for Download

85th Military Operations Research Society Symposium (MORSS)

United States Military Academy, West Point, NY

Click here to download PDF copies of slides.

2018 86th MORSS Tutorial Slides to be Posted in July

Over the course of the 85th MORS Symposium Tom Donnelly presented eight1-hour tutorials:

19496 - ***Building Better Models Using Robust Data Mining Methods***

19716 - ***Exploratory Data Analysis and Root Cause Analysis -***

"What can you do when you don't have a designed experiment?"

19497 - ***Making Your Design of Experiments (DOE) Fit Real-World Problems***

19501- ***Using Definitive Screening Designs to Get More Information from Fewer Trials***

19498 - ***Efficient Modeling & Simulation Using Design of Experiments Methods***

19500 - ***Calling All Chemists – Efficient Formulation Design***

19713- ***How to Compare and Choose Experimental Designs***

19499 - ***All Graphs are Wrong – Some are Useful***

Click here to download PDF copies of slides.

www.jmp.com/fedgov

Recorded Webcasts

NOTE: These LINKS are NOW ACTIVE.

Building Better Models Overview and Use of Honest Assessment	Regression Linear, Stepwise, Logistic, Generalized/ Penalized, & All Possible	Decision Trees Simple Partition, Bootstrap Forest, & Boosted Tree
Custom DOE Make the Design Fit the Problem	Definitive Screening Designs (DSD) Creation & Augmentation	Power Calculation via MC Simulation Binary Responses & Split-Plot Designs
Special Case Custom DOE Augmentation & Design from a Candidate Set	Analyzing DSD DOEs Graphical Methods & Fit Definitive Screening Platform	Data Transformations Get Rid of L-o-F, Predictions Make Physical Sense
Text Exploration Analyze Unstructured Free Text	All Graphs are Wrong - Some are Useful - Based on Xan Gregg's 2015 JMP Discovery Summit Presentation	Exploratory Data and Root Cause Analyses Case Studies

Currently Using JMP 13

Webcasts Using JMP 14
Will be Recorded this Summer

Webcasts Using JMP 12
Still Active

www.jmp.com/fedgov

www.jmp.com/fedgov

“What’s New in JMP® 14?” Video Links:

JMP in 83-seconds – Quick overview of JMP
https://www.youtube.com/watch?v=Uryd3d-UgKI

New in JMP 14 – 17 videos, 2-to-13 minutes in length – Pick your own order to view What’s New!
https://www.jmp.com/en_us/events/ondemand/mastering-jmp/new-in-jmp-14-and-jmp-pro14.html

JMP founder John Sall’s 1-hour intro of version 14 at JMP Discovery Summit Europe.
https://community.jmp.com/t5/Discovery-Summit-Europe-2018/Plenary-Session-John-Sall-Projections-and-Encapsulations/ta-p/53175

JMP 13 links are also still active on this web page

“What’s New in JMP® 14?” Web Links:

New features in JMP 14 and JMP Pro 14
https://www.jmp.com/en_us/software/new-release/new-in-jmp-and-jmp-pro.html

What is JMP? – Product Overview
https://www.jmp.com/en_us/software/data-analysis-software.html

Links to Downloadable PDF Literature:

Why JMP? – 8-pages – **If you download one piece of literature, this is the one you want.**
https://www.jmp.com/content/dam/jmp/documents/en/software/jmp/jmp14/why-jmp-software.pdf

JMP 14 and JMP Pro 14 Fact Sheet:
https://www.jmp.com/content/dam/jmp/documents/en/software/jmp/jmp14/new-features-in-jmp-14.pdf

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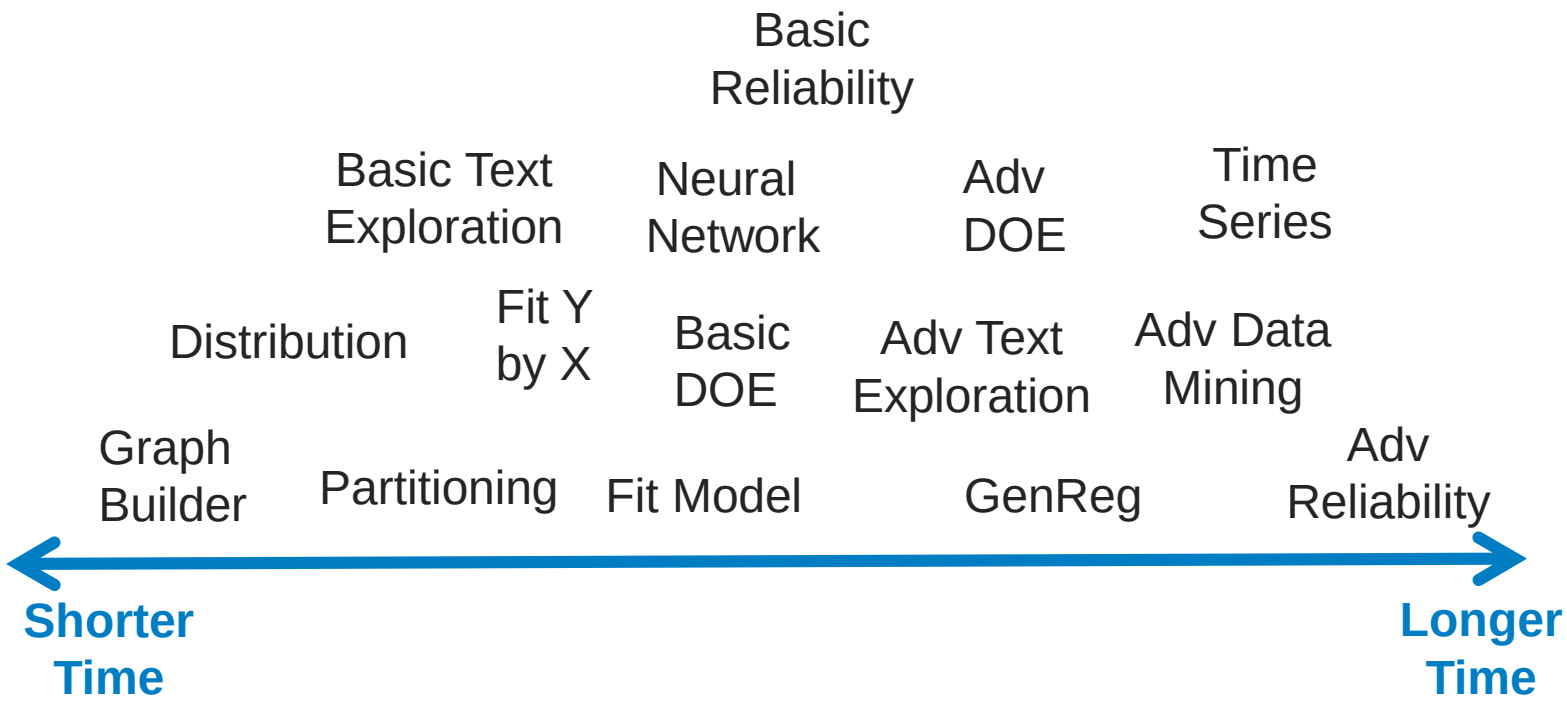
Short Demo Recordings on these JMP Capabilities (AVG < 5 minutes)

1. Exploratory Data Analysis with Graph Builder - root cause analysis
2. Query Builder and Graph Builder - filter a database and then explore the data
3. Optimization of Multiple Responses - Trade-Space Analysis
4. Saving Analyses to PowerPoint - save optimization analyses to PPT
5. Decision Support Dashboard of C-5 Analysis
6. Putting Data on Maps - global, national, street level
7. Adding Images to Data Table and Graphs
8. Covering Array for finding faults in software or communication systems
9. Remotely Run "R" Using Multidimensional Scaling Add-in

Currently JMP 12

HOW LONG DOES IT TAKE TO LEARN JMP?
DEPENDS… ON YOUR LEVEL OF STATISTICAL KNOW HOW



TOPICS

- JMP Learning Resources – links, videos, books
- All Graphs are Wrong – Some are Useful
- Images in data tables, images as markers (14) – LMI, BEP
- Import from Excel, Database, Internet
- Data Cleanup – outliers, recoding, missing
- FAA Data Story – Flash in PPT, Publish Webpage (14)
- Data on Maps – Animate over time – Save as GIF (14)
- EDA – Tablet Data – Distribution, Linking, Model, DOE, Test Prediction
- Text – NTSB Data Story
- Remotely Run – SAS, Matlab, R, Python (14) – Formula Depot
- Functional Data Explorer (14) - model streams of data