

Interactive Analysis and Data Visualization Using JMP

–Dara Hammond, Federal Systems Engineer

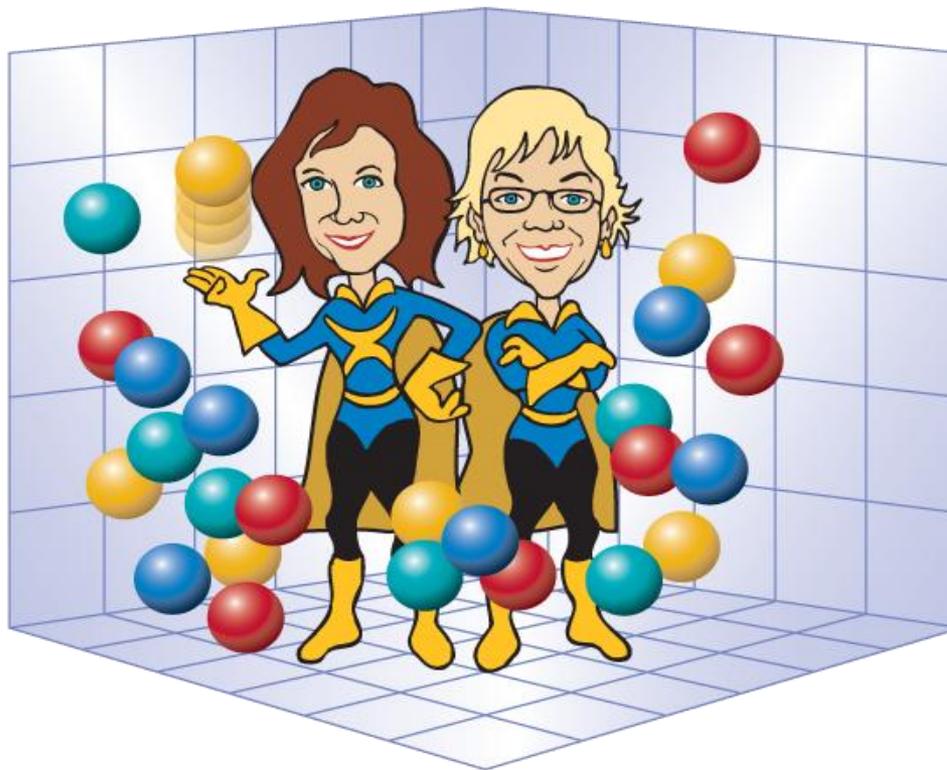
- Northern Virginia ASQ Meeting
- August 20, 2008

Agenda

- Introduction
 - Dara Hammond, JMP Systems Engineer
 - Arlington, VA
- What is JMP?
- Demo
- Questions and Answers

Meet the New JMP Federal Gov't Team

The Dynamic Data Explorers!



“....as we know, there are known knowns;
there are things we know we know.

We also know there are known unknowns;
that is to say we know there are some
things we do not know.

But there are also unknown unknowns -- the
ones we don't know we don't know.”

- *Donald Rumsfeld*

What is JMP?

- ***A statistical visualization and discovery tool that graphically displays and analyzes data and results***
- A desktop software package to help you discover relationships in your data
- Point and click
- Interactive graphics
- Dynamically links results and data
- Windows, Linux and Mac, including Windows Vista! (JMP 7)

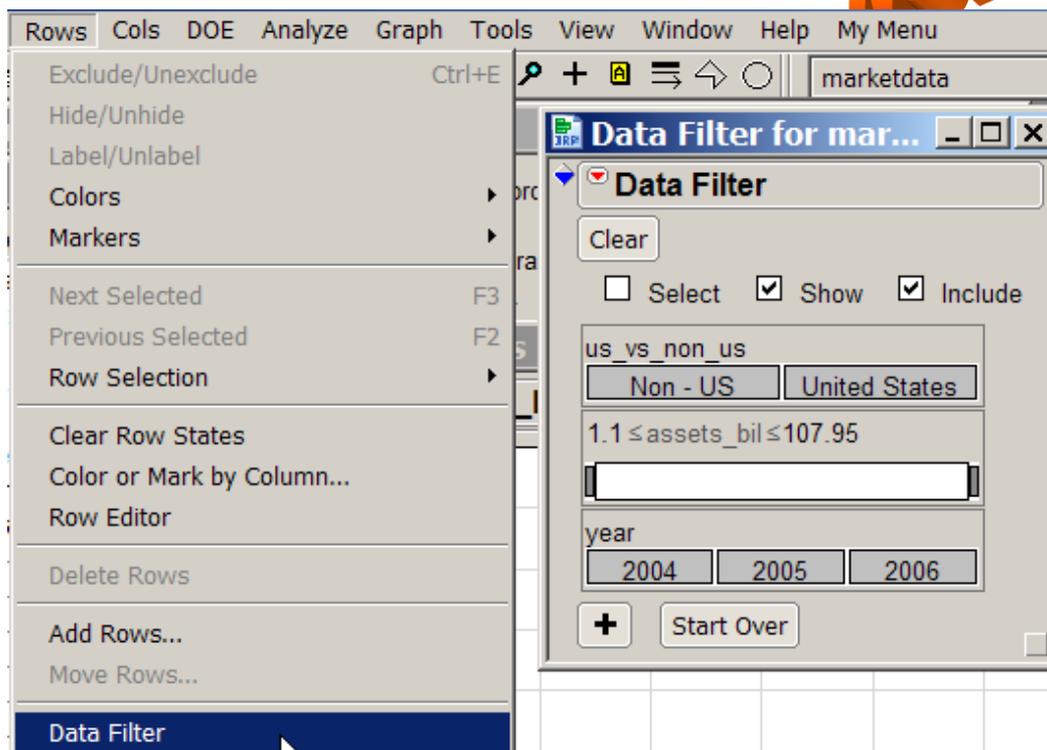
What's New in JMP7?

- JMP 7 integration points with SAS
 - Support for stored processes
 - Metadata access
 - SAS language support
- Provides interactive business visualization capability for SAS BI
- ~2 million row limit for 32-bit Windows
- 64 bit version on Windows and Linux - no limit on data size
- Rich JSL (JMP Scripting Language) programming language

Data Filter

NEW!

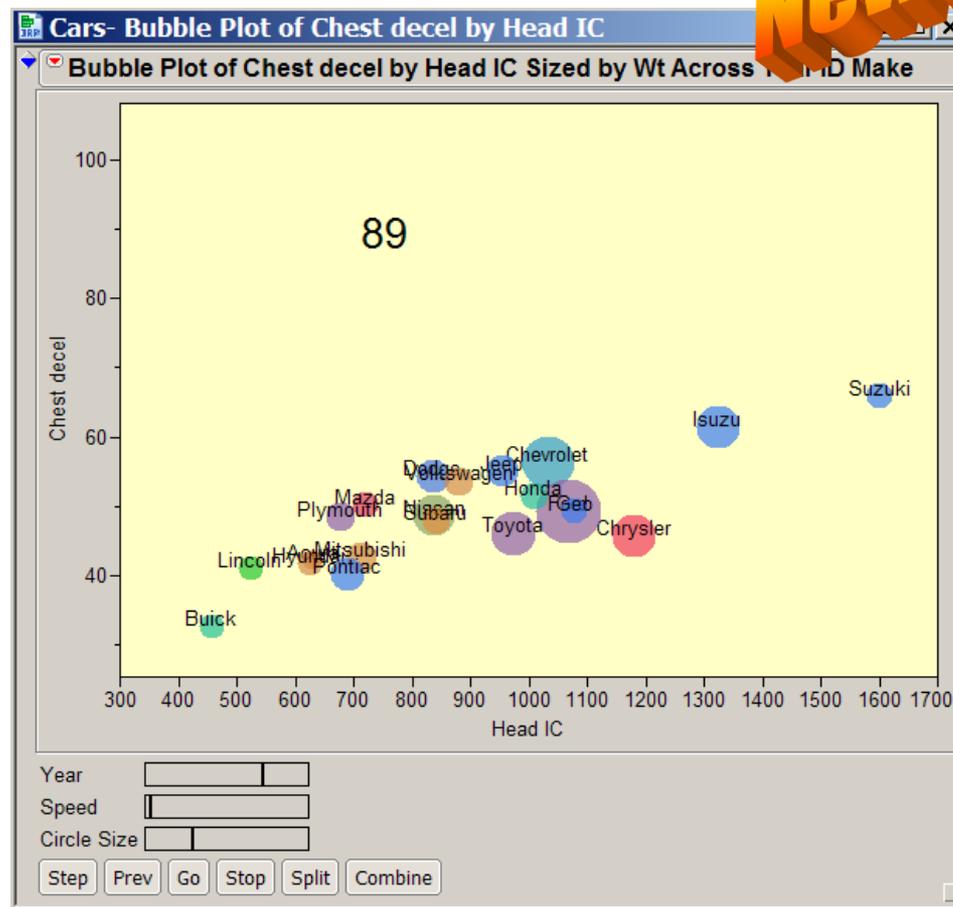
- Rows → Data Filter
- Identify subsets of data using Data Filter commands and options
 - Select
 - Show
 - Include
- Interactively select complex subsets of data, hide these subsets in plots, or exclude them from analyses.



Animated Bubble Plot

- Graph → Bubble Plot
- Graph displays up to six dimensions of data
- Animate across time

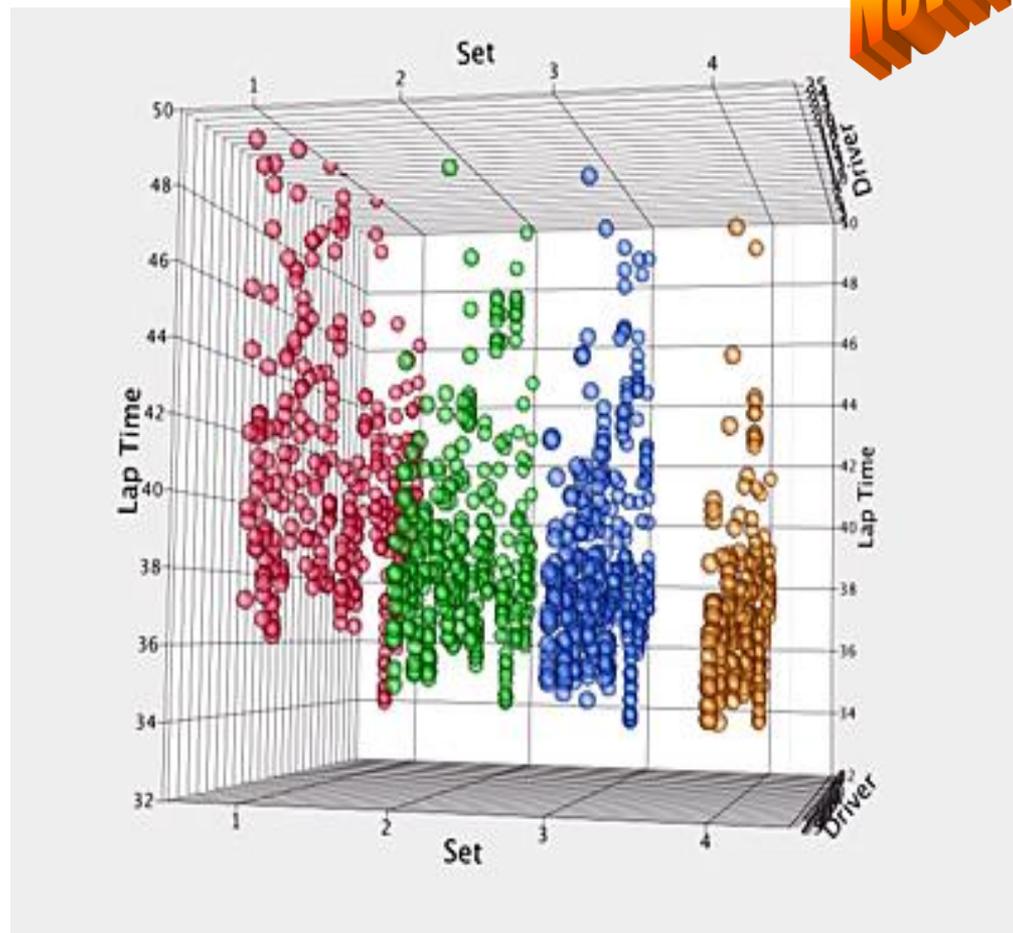
New!



3-D Scatter Plot

- Graph → Scatterplot 3D
- Displays a three-dimensional spinnable plot

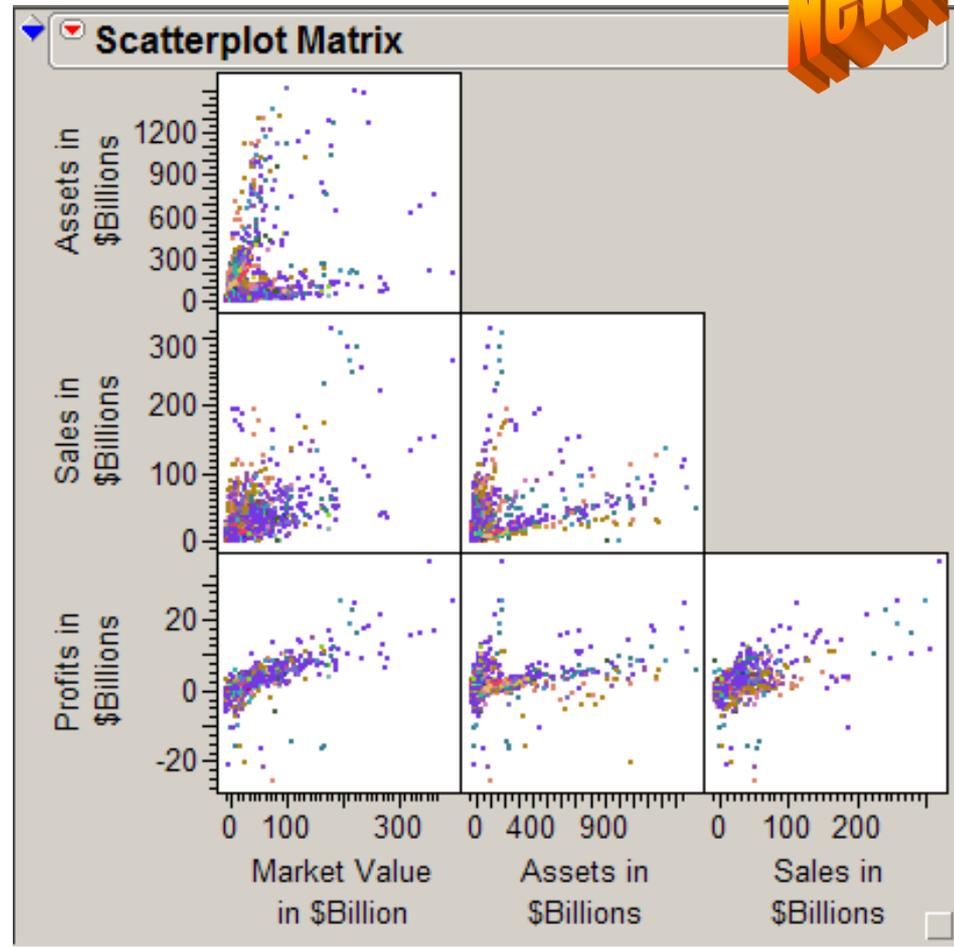
New!



Scatterplot Matrix

- Graph → Scatterplot Matrix
- Shows how data is distributed through multiple variables
- You can see how the same clusters of points change shape from one scatterplot to another
- Linking and brushing

New!

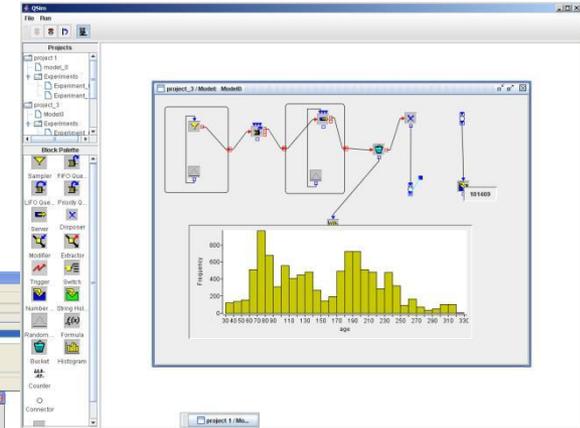
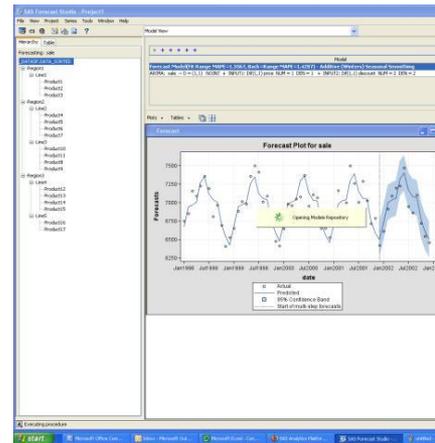


Visual Analytics

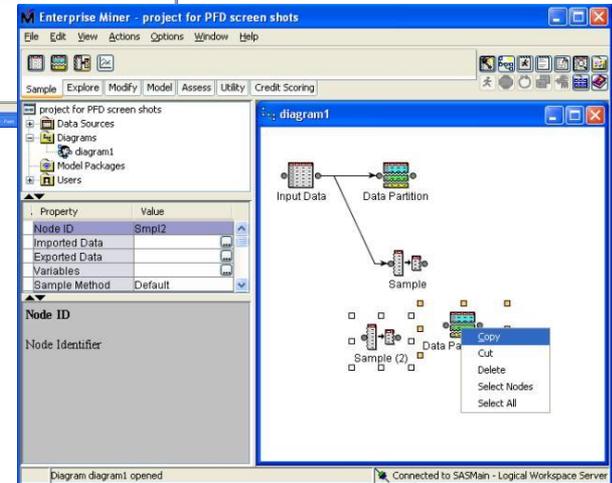
- Pairing SAS' advanced analytics with interactive exploration from JMP
 - simulations
 - optimization
 - time series modeling
 - data/text mining

- Stored processes created from existing SAS models and reports can include JSL for further visual analysis

Forecast Studio



Enterprise Miner



Resources...

- 30 Day Trial of JMP
 - http://www.sas.com/apps/demosdownloads/jmptrial_PROD_7.0_sysdep.jsp?packageID=000415&jmpflag=Y
- Student pricing: <http://jmp.com/software/license.shtml>
- JMP Website for more information:
 - Webcasts: <http://jmp.com/about/events/webcasts/>
 - Six Sigma: <http://www.jmp.com/applications/sixsigma/>
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Statistical Discovery.TM From SAS.

SEEING IS BELIEVING