

# Data Exploration with SAS JMP

A sophisticated  
data discovery software



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# Today's challenge...

- **Tremendous amounts of data is collected from which...**
  - discoveries will be made
  - decisions will be taken
  - policies will be derived
  - funding will be allocated
  - ...



# Today's challenge...

- **An analyst's perspective**
  - Time available
  - Resources available
  - Tools available vs. required
  
- **The conventional approach...**
  - task -> define needs ->
  - build system -> get results, find answers ...



# Today's challenge...

Can this conventional approach  
answer today's challenges ?

## Dilemma

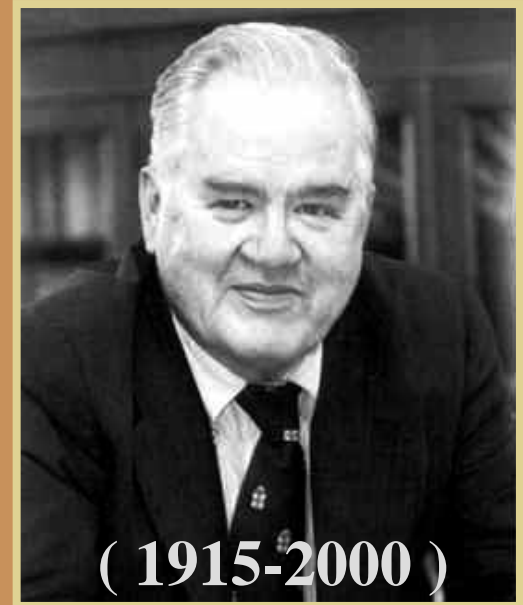
Provide specifications ???

But how can you  
since you don't know  
what your are looking for ...



# A bit of history...

- **John Wilder Tukey**
  - In the 70's,  
laid the foundation of EDA.
  - 25 years later, EDA  
& Informatics crossed roads  
to bring to life Tukey 's work.
  - (SAS Insight and SAS JMP “software”  
are vibrant examples )

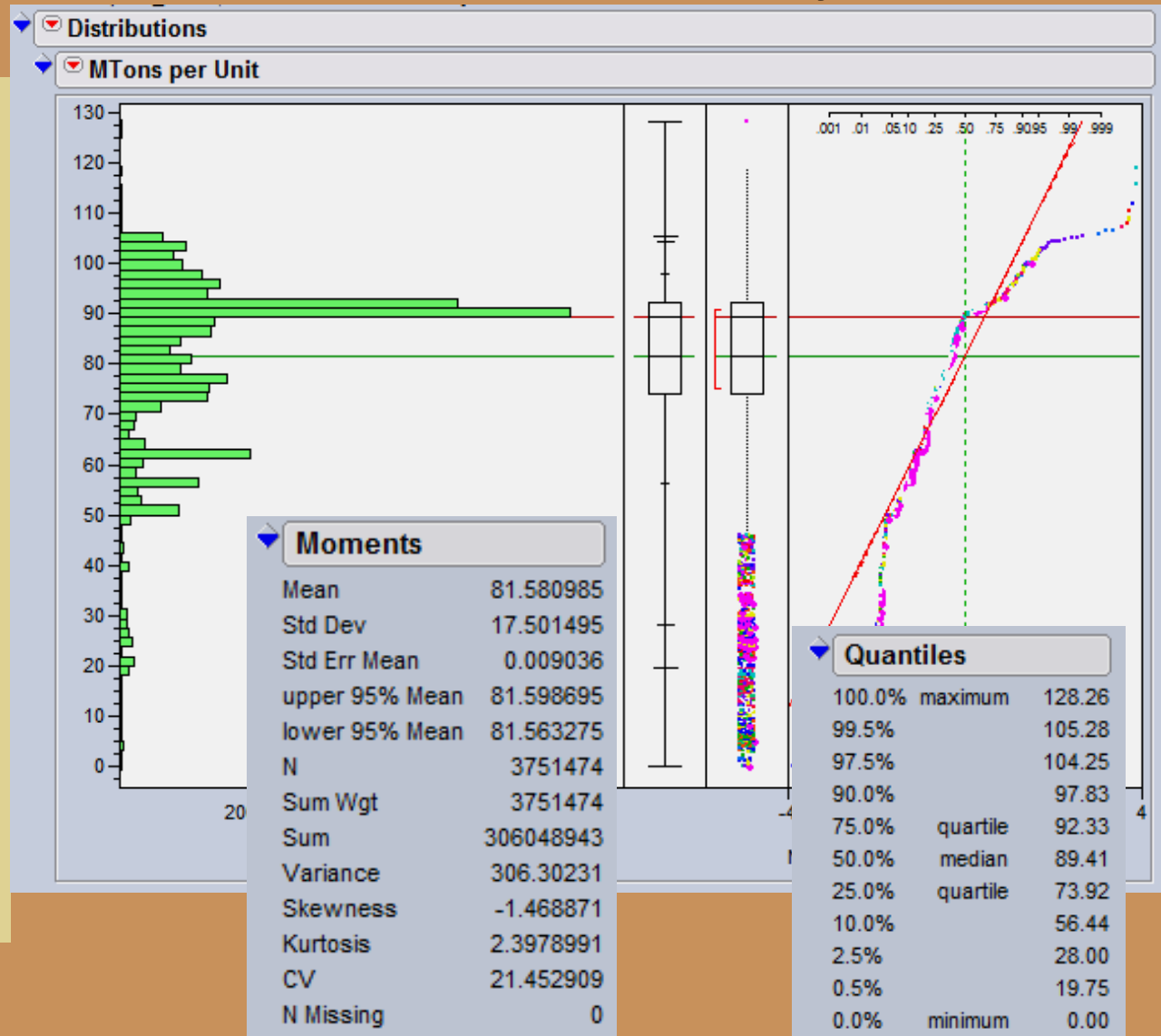




# A bit of philosophy...

“Numerical quantities focus on expected values, graphical summaries on unexpected values”

(J.W. Tukey)

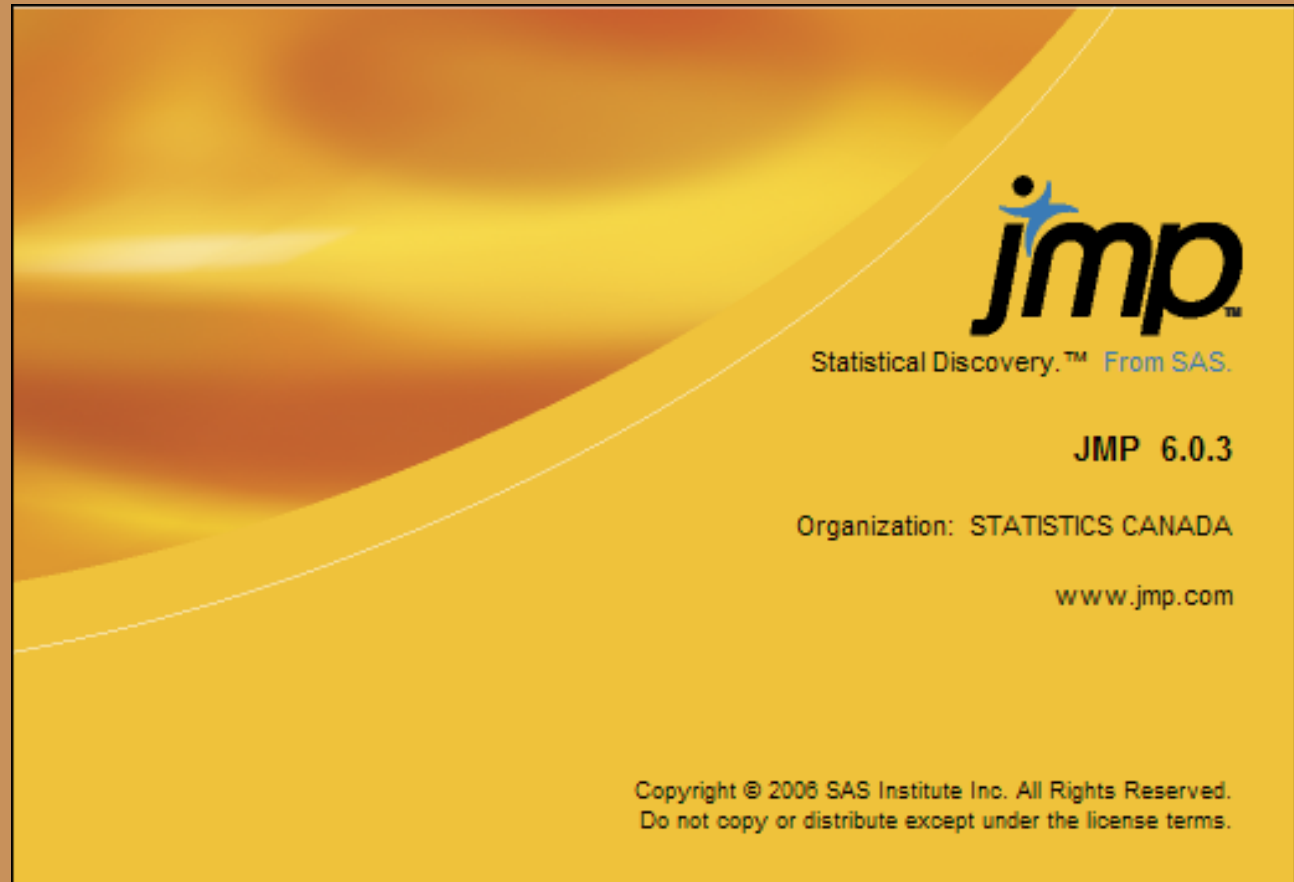


# A conceptual framework

- Dynamic graphs VS Static graphs
- Multidimensional Data Exploration
- Juxtaposition ( simultaneously displayed windows )
- Brushing (selected obs. show in all visualization)
- Data Transformation ( create new variables on the fly)
- Highlighting (use special symbols for selected groups )
- Marking ( tag specific obs. )
- Coloring ( provides additional analytical dimensions )
- Data is linked to subset or summaries



# A live demo

The image shows the splash screen for JMP 6.0.3. The background is a gradient of yellow and orange with a white curved line. The JMP logo is in the top right, followed by the tagline 'Statistical Discovery.™ From SAS.' Below that is the version number 'JMP 6.0.3', the organization 'Organization: STATISTICS CANADA', and the website 'www.jmp.com'. At the bottom, there is a copyright notice: 'Copyright © 2006 SAS Institute Inc. All Rights Reserved. Do not copy or distribute except under the license terms.'

[www.jmp.com](http://www.jmp.com)





# What is JMP ?

➤ SAS/JMP is a statistical software that enables a **point and click** approach to data exploration and analysis without the need for any programming.



# Features of JMP

- Enhanced data grid
  - indicates # of rows and columns and selected
  - allows definition of data and modeling types
    - character, numeric, continuous, categorical(2)
    - default role: group, label, frequency or weight.
  - manipulation of rows and columns
    - moving, sorting, searching and editing.
    - allows
  - examination of data by single or group

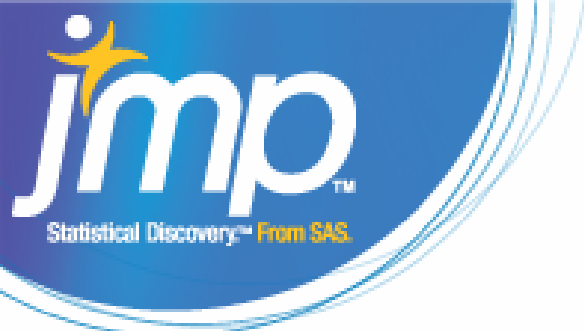


# More features of JMP

- Easy and powerful visualisations
- Dynamic exploration of data
- Access to summary statistics
- Creation of derived variables
- Powerful table manipulating functions
- Linked data tables
- Enhanced statistical features
- Keep analysis as part of table
- Scripting
- Great online help w/ sample data




# Just released JMP 7.0



**JMP® 7.0**

[www.jmp.com](http://www.jmp.com)



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# Better integration w/ SAS



# Questions / Comments



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