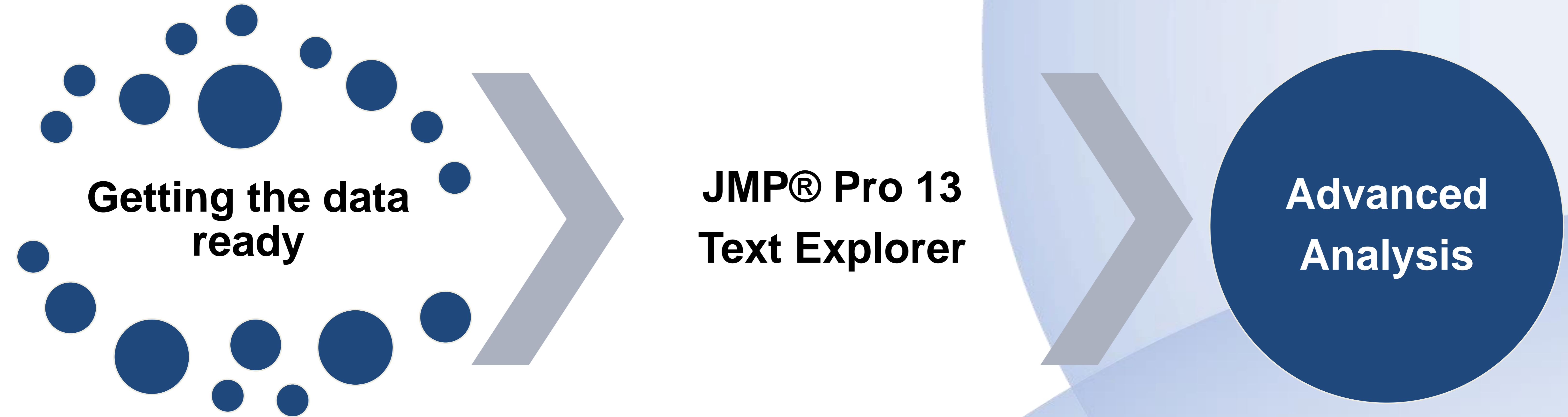


# Online product ratings and reviews UNLEASHED by JMP® Pro 13 with the brand new Text Explorer platform

Pablo Moreno Peláez - Procter & Gamble



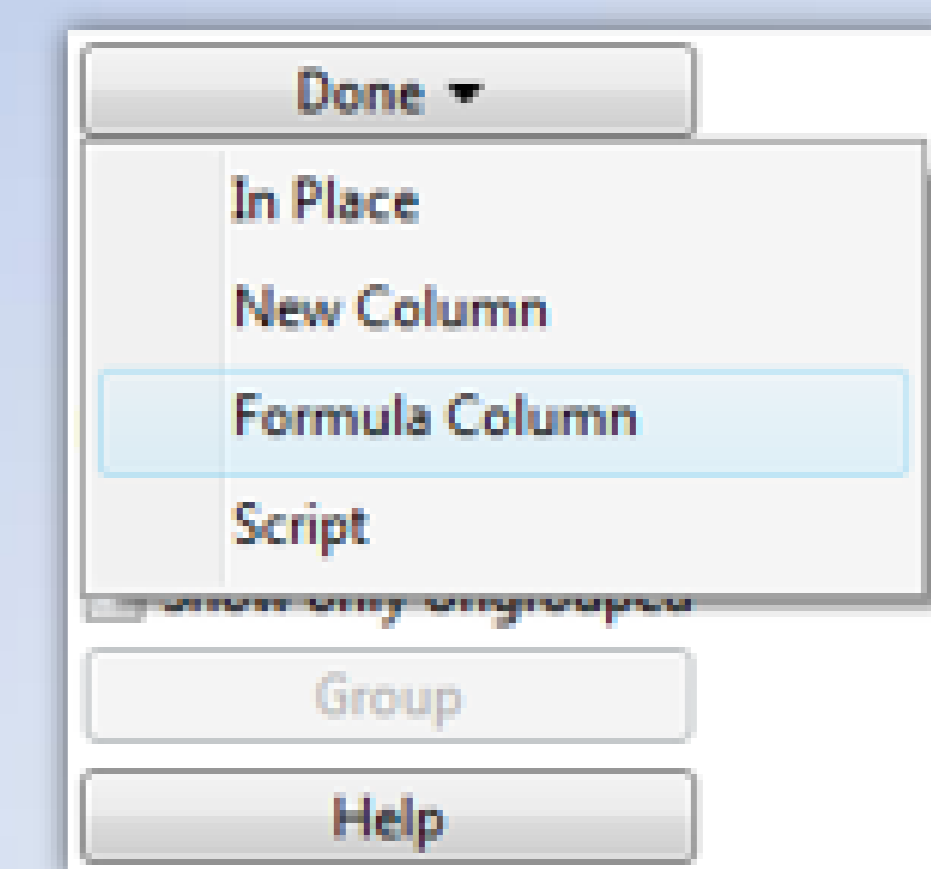
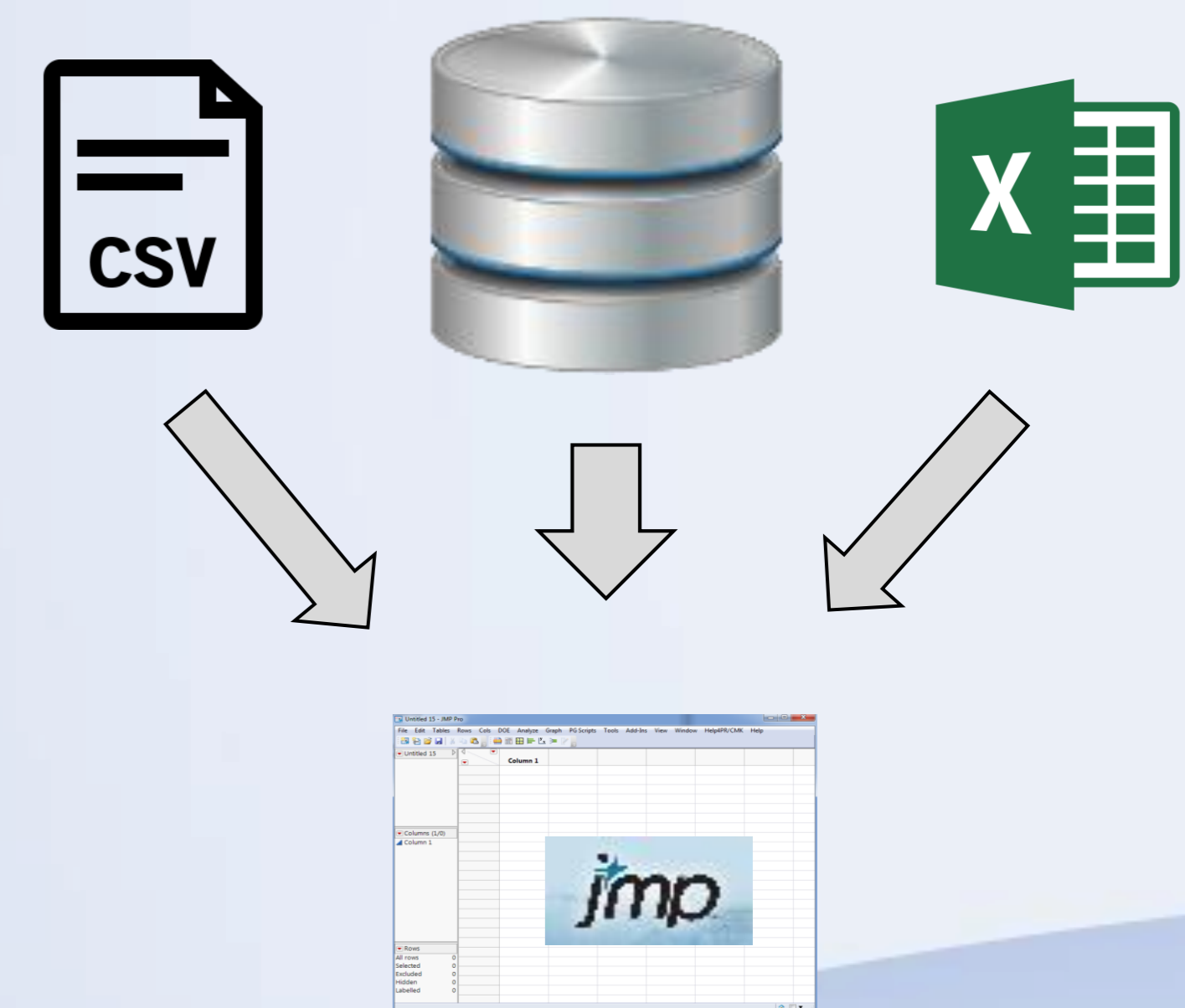
# Product Ratings and Reviews – Getting, cleaning and preparing the data

E-commerce data, including product ratings and reviews from consumers come from different sources in diverse formats. JMP helps aggregate all this data.

- Excel addin + .csv import wizard.
- Query builder for SQL databases.

Working with a big number of brands requires standard names for categories and products. This is achieved via a thorough data cleaning phase including:

- Use of filters in query builder.
- Recode! New functionality, recode into formula, recode to script is key to minimize rework when new data comes in.
- Formulas to identify duplicates. 60% of reviews are duplicated my online retailers.

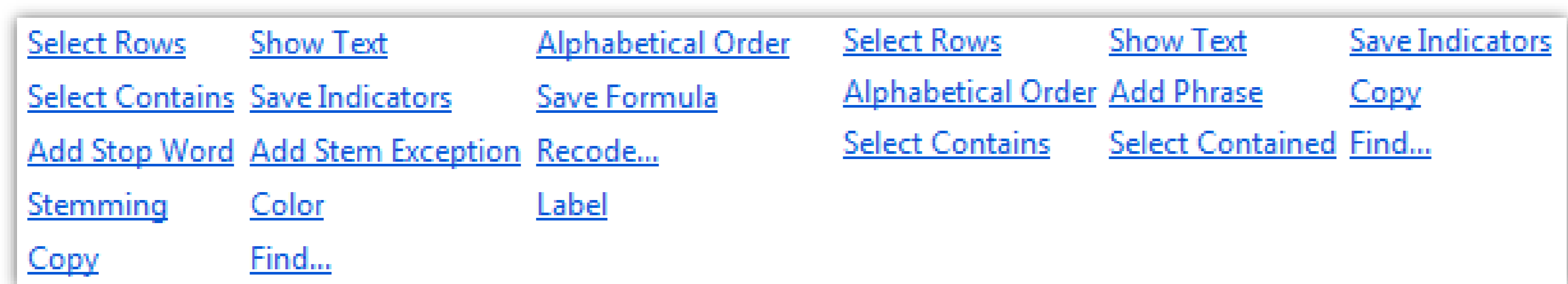


$$\text{If} \left( \begin{array}{l} \text{Row}() \leq 1 \Rightarrow \text{"Unique"} \\ \text{else} \Rightarrow \text{If} \left( \begin{array}{l} \text{xReviewText}_{\text{Row}()} == \text{xReviewText}_{\text{Row}()-1} \\ \text{else} \end{array} \right) \end{array} \right.$$

# Product Ratings and Reviews – Text data analysis and visualization

Text Explorer makes it extremely easy for anyone to take the first steps in text analysis.

- Terms and Phrases at a glance + “Show text” for a first glance at the data.
- Key preparation steps for text analysis:
  - Adding phrases and stop words (i.e. “dishwashing detergent” or “This review was collected as part of a promotion”) using the “Term and Phrases Options” form the red spot:



Number of Terms	Number of Cases	Total Tokens	Tokens per Case	Number of Non-empty Cases	Portion Non-empty per Case
5879	5647	211670	37.4836	5646	0.9998

Term	Count
dishes	3336
cascade	2660
dishwasher	2511
review	2430
part	2426
promotion	2382
collected	2377
clean	2174
product	1637
use	1341
great	1280
platinum	1031
love	1025
well	829

Phrase	Count	N
part of a promotion	2380	4
collected as part	2377	3
review was collected	2377	3
cascade platin	230	2
platinum pacs	230	2
dishwasher de	223	2
dishes clean	207	2
great product	203	2
dishes come	190	2
works great	190	2
hard water	188	3
clean dishes	188	3
sparkling clean	188	3
cascade platinum pacs	188	3

**What is going on here?**

A consumer magazine gave this product an excellent review. I agree wholeheartedly. Wouldn't use anything else in the future. [This review was **collected as part** of a promotion.] [13]

A friend of mine recommended this product and I'm so glad he did. This is the best dishwasher detergent I have ever used. [This review was **collected as part** of a promotion.] [15]

**Paid reviews!**

- Recoding any misspellings via automatic or manual grouping of terms.
- Stemming your terms to reduce the number of terms and phrases with the same meaning.
- Manage your term an phrases settings to save for future analysis of similar data!

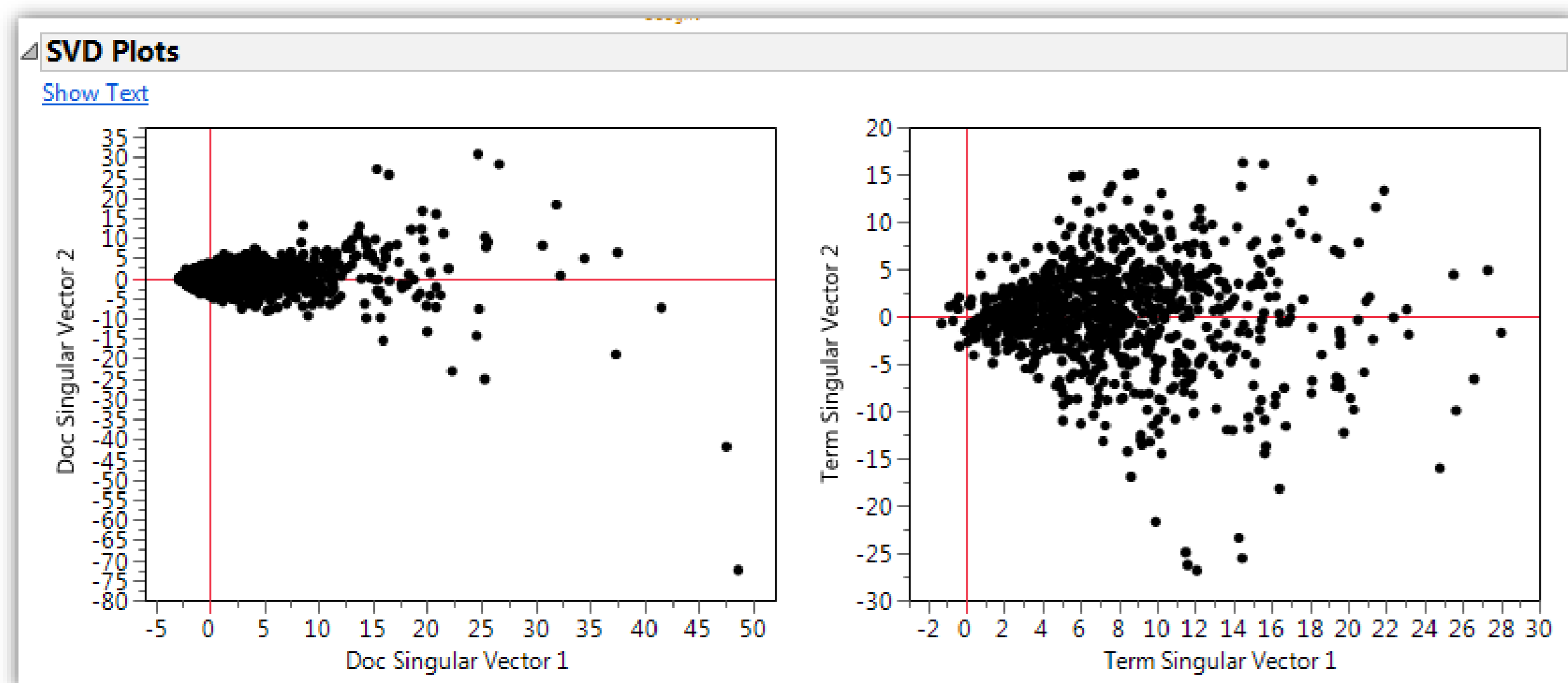
Wordclouds, the good old favorite is now available in JMP, no addins required!

- Red spot → Display → Wordcloud
- Layout and coloring can be changed, color by row for added meaning!
- They are interactive! Click on each word to:
  - Change the color
  - Show the text associated to the term
  - Label the rows in graphs and analysis




# Product Ratings and Reviews – Further analysis

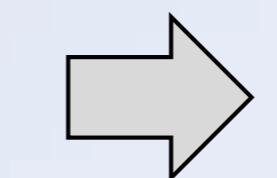
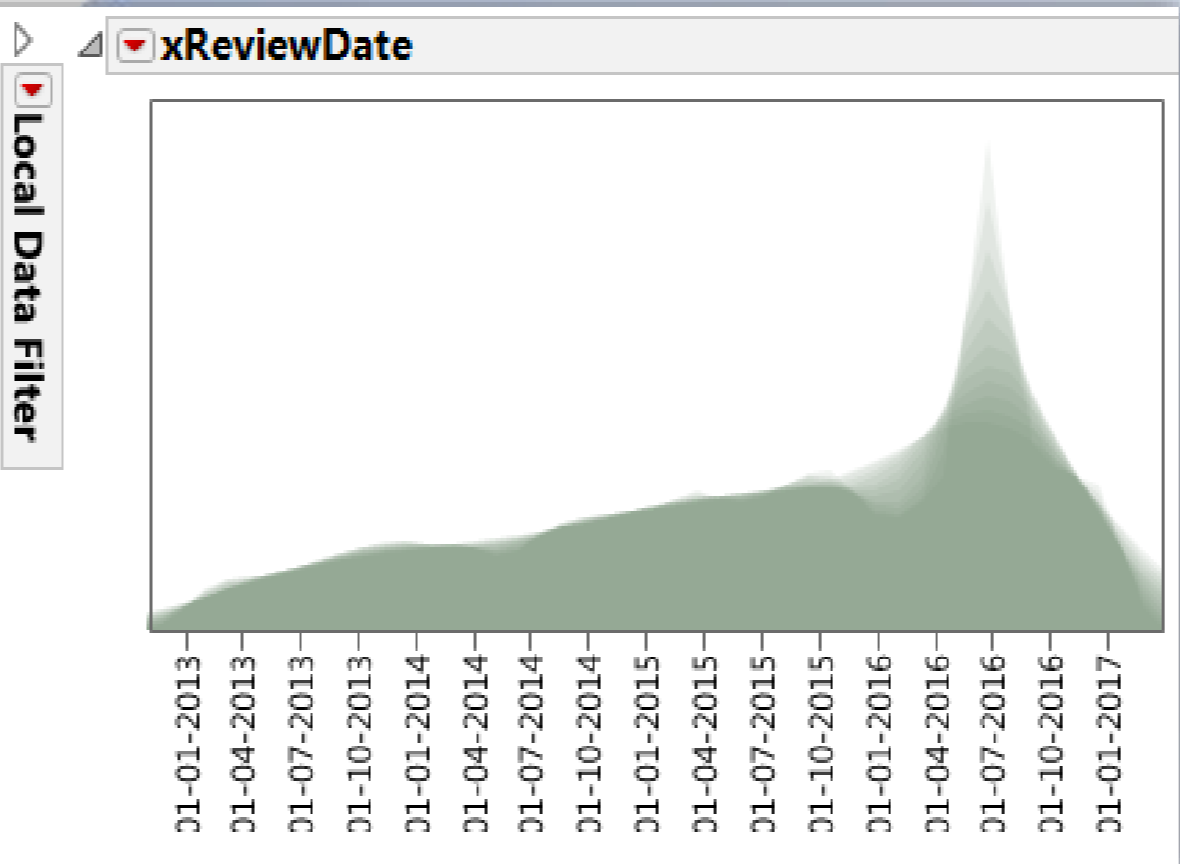
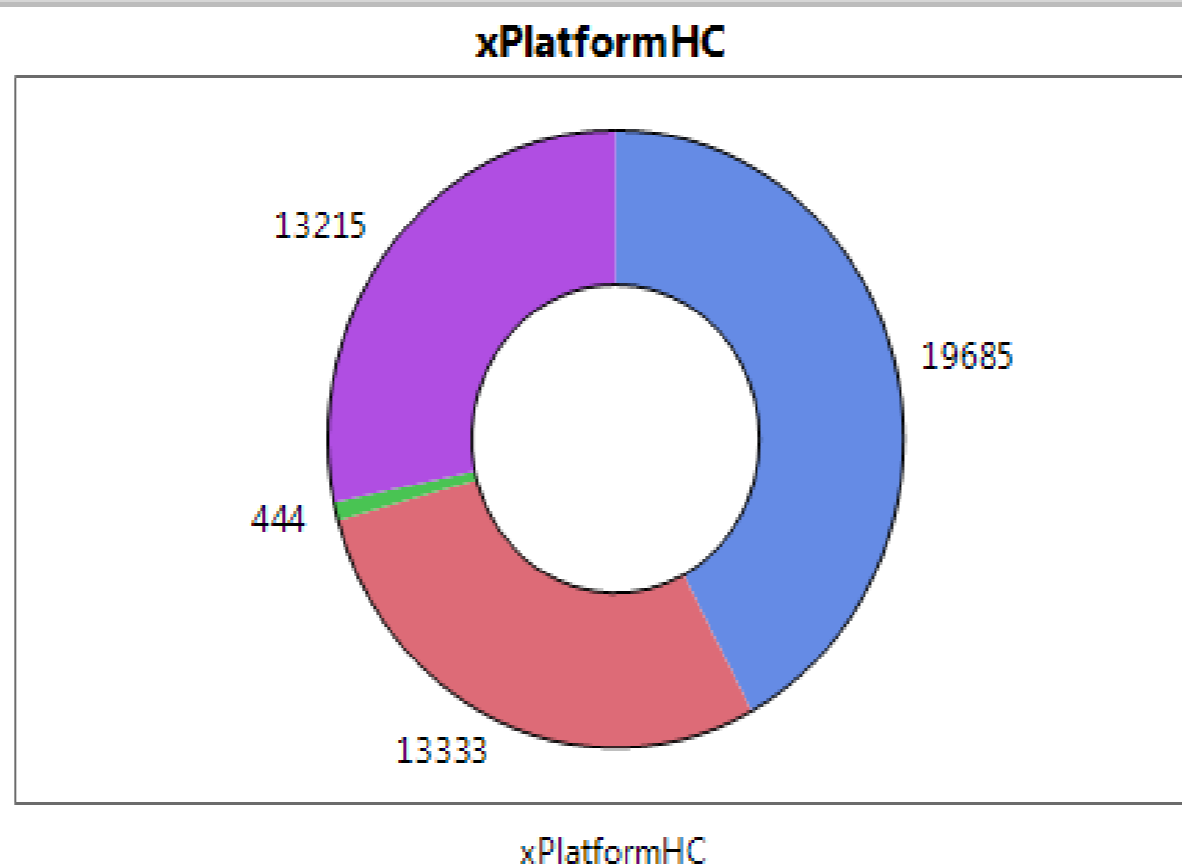
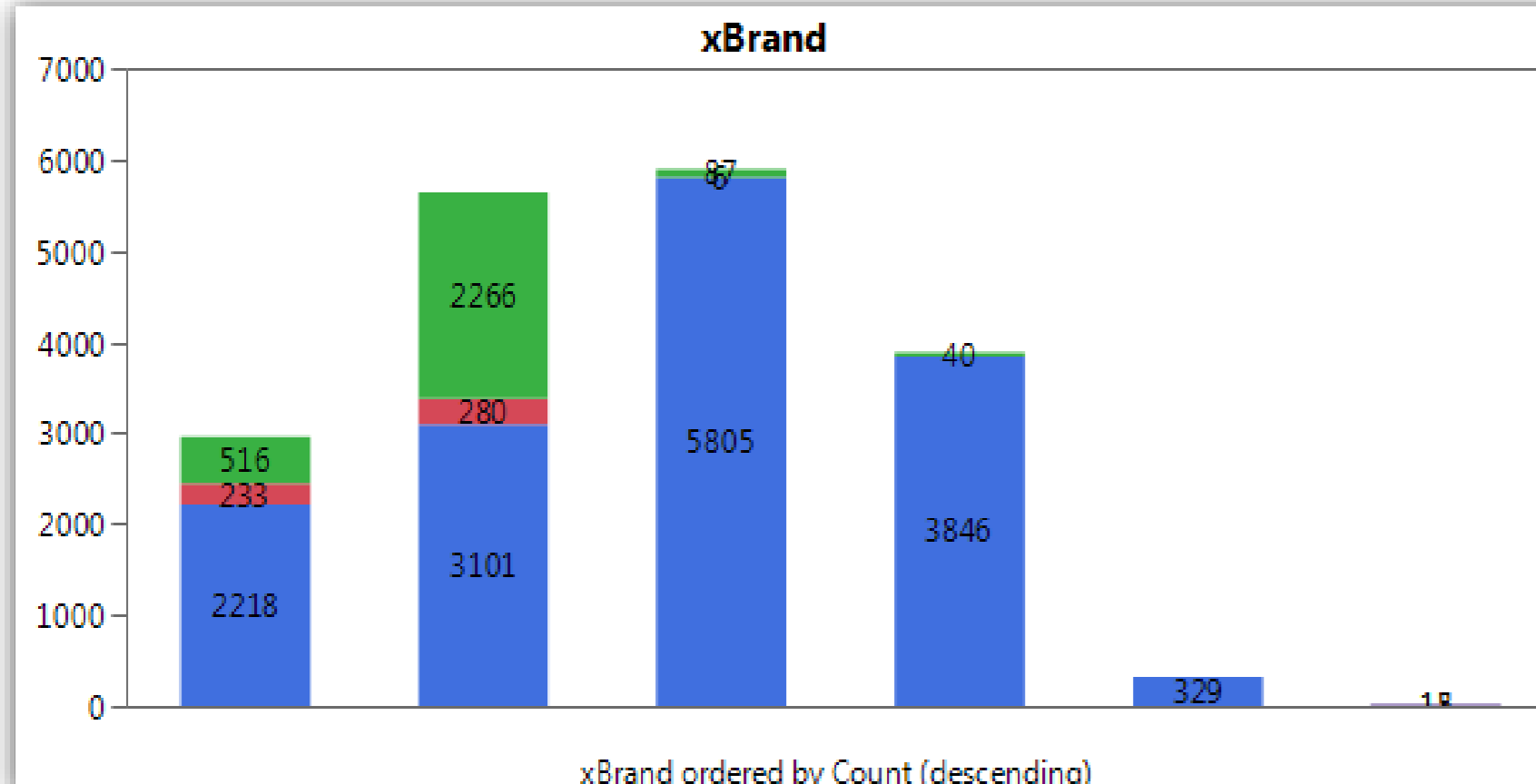
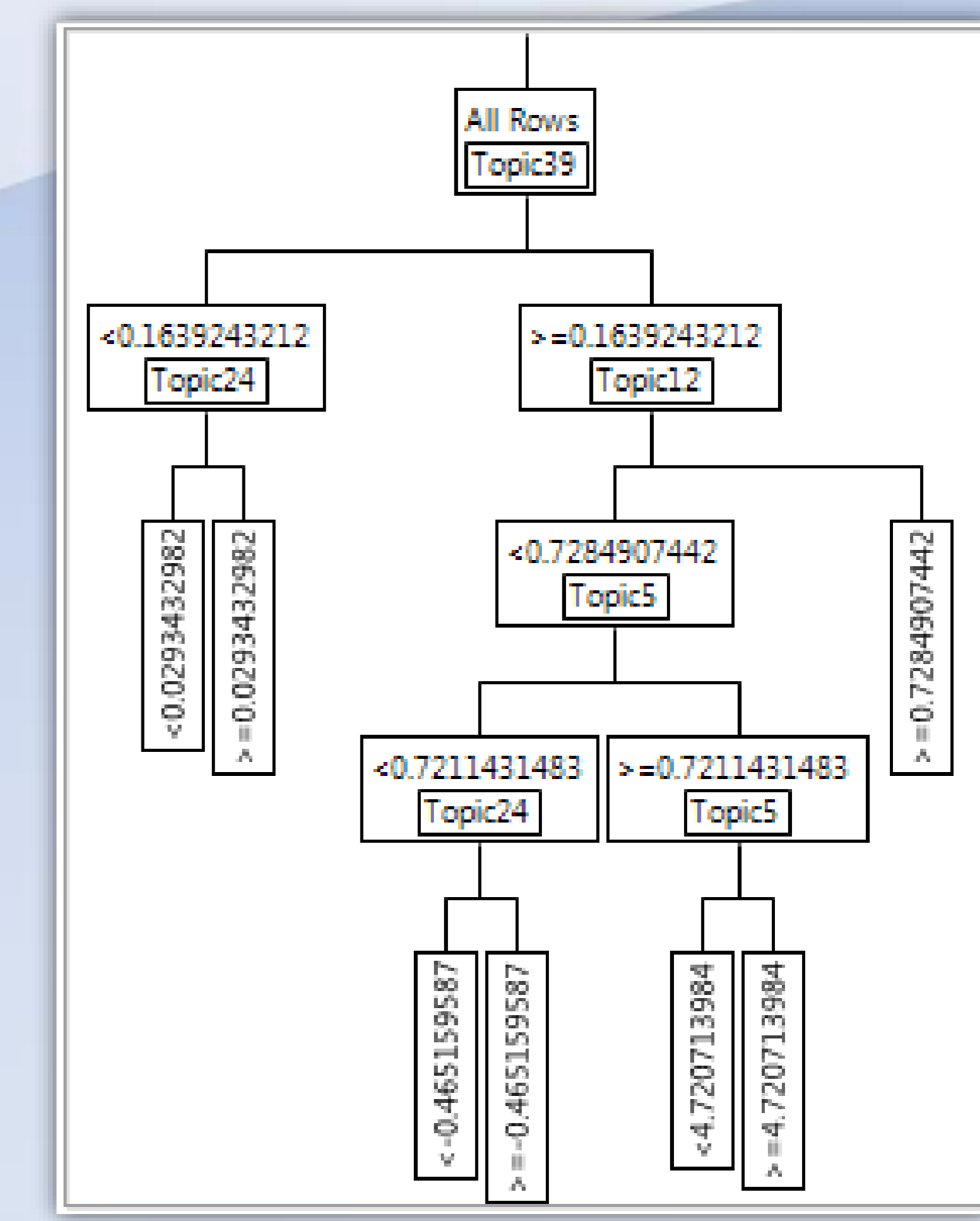
- What product benefits are consumers talking about on their online reviews?
  - Topic Analysis, Rotated SVD is available in Text Explorer
  - We can see what topics (groupings of terms) occur in our documents, how important these topics are within the dataset and what text documents are associated with a given topic.



Topic6	
Term	Score
pot.	0.19721
pan.	0.19673
food.	0.15956
come.	0.15740
sparkl.	0.14000
even.	0.12587
bake.	0.12315
power.	0.11374
plate.	0.10684
incred.	0.10216
fork.	0.10134
dog.	0.10108
bowl.	0.09977
peanut butter.	0.09833

Thank you for giving me the opportunity to review Cascade Platinum. I have a household of boys (including husband) whom do not think it is necessary to wipe dishes before putting them into the dishwasher. Now that I have used the Cascade Platinum, I do not give the food on the dishes a second thought. The dishes come out clean; the first time. Being from WI, we consume a lot of cheese. Parmesan cheese tends to stick to utensils. Well, I don't worry about that anymore. Everything from the forks to the plates come out clean. Speaking as an experienced Mom and dishwasher; I'm glad our family discovered Cascade Platinum. [4091]

- What topics in the reviews drive the overall online product rating up or down?
  - Topic Analysis let us save the SVD scores to the data table for each of the topics.
  - We can use these scores to build a descriptive model, and try to explain the rating scores.
- What product performance measures drive consumer acceptance?
  - Using Query builder or virtual join, we can further expand our analysis to other R&D data such performance, formulation or product stability.
- Creating dashboards and publishing to HTML5 is now easier than ever with JMP 13. Just share a link with your audience, even if they do not have JMP installed.



**jmp** General Home Care  
Click any of the thumbnails below to launch interactive JMP reports.

10-02-2017 14:03  
HomeCare - R&R Descriptive Stats Dashboard





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