The JMP® Journal: An Analyst's Best Friend

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ABSTRACT

The JMP Journal is an incredibly useful tool for consultants and analysts, yet it's not commonly used. We first explain what the JMP Journal is, then describe how it can be effectively used to keep track of an analysis (and its underlying code), to present results to a boss or client, or to use as a collaboration tool.

KEYWORDS: SAS, Excel, export, formats.

INTRODUCTION: THE PROBLEMS WITH POINT-AND-CLICK

JMP is a highly versatile tool for doing data exploration. The problem is, how can you effectively organize your work or show it to your boss or client?

Let's suppose you have a data set of wine *image accounts*. When a new wine is marketed, to gain market exposure, it's served at various high-end eating and drinking establishments within a specific region. You'd like to explore sales data within these image accounts. Our input data set is in Figure 1.

Suppose you want to see a distribution of the data. From our input in Figure 1, go to *Analyze → Distribution* to get the dialogue box in Figure 2. Using this, you choose which variables you want to display, and in what order. Then you get the output, and you set some of the variables to print in a given order. For example, in Figure 3, the default for the variable `Trade_Channel_Description` is to list the values in alphabetical order. However, you'd rather list it in the order of number of observations, so you right-click in that area to *Order By → Count Ascending*. At this point, you have the view you want for showing this to your boss.

Figure 1: The input JMP data set, containing image accounts for wine sales.
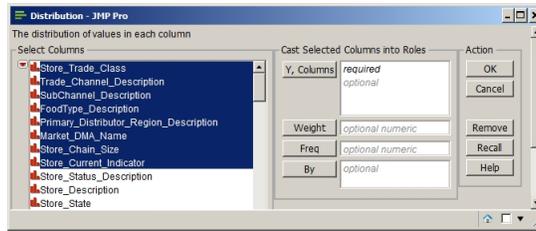
Figure 2: The *Analyze → Distribution* dialogue box.
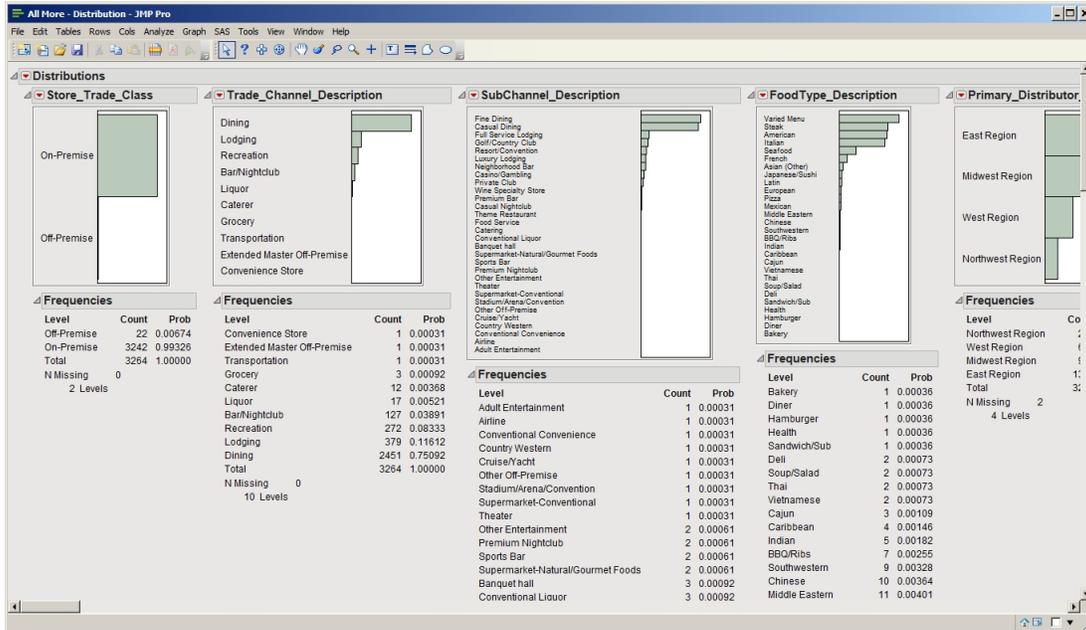
Figure 3: The distribution output.

However, you're probably showing this output to your boss on a different day or a different computer. To save it into a presentable form, you can put it into a PowerPoint or PDF, but then you lose the ability to dig into the data during the presentation. If you want to present the results within JMP, you'd have to remember the sequence of points and clicks. While this sequence is trivial in this case, it can be far more complicated for other analyses. Furthermore, you don't want to waste valuable presentation time by pointing and clicking! You might also want to add notes or annotations. How do you do that?

The JMP Journal solves this problem.
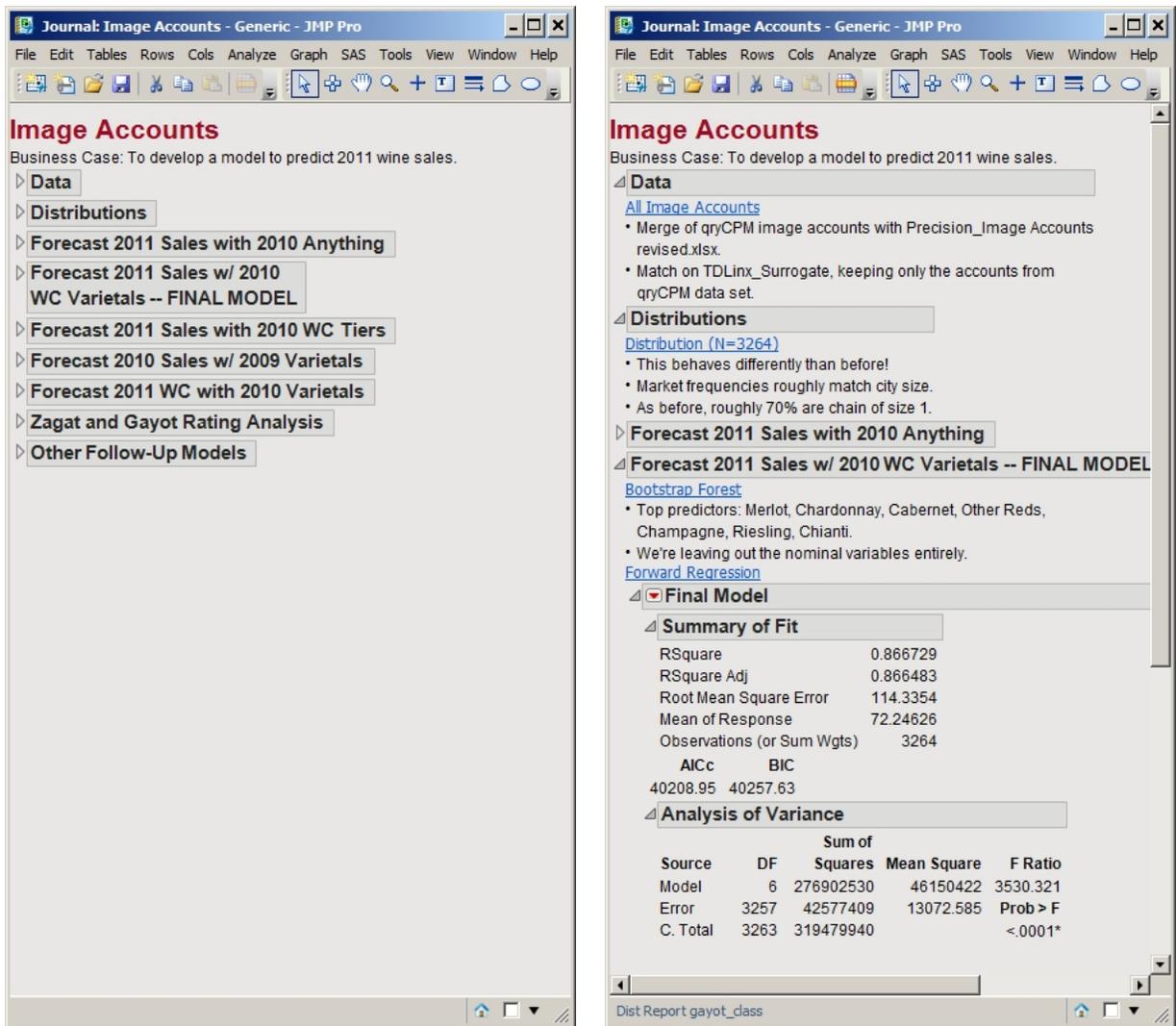
Figure 4: The JMP Journal, with all the sections closed (left) and some open (right). The blue underlined text is linked to a JMP analysis, executing linked JSL (JMP Scripting Language) code.

THE JMP JOURNAL

The *JMP Journal* (SAS Institute, 2013; Bao, 2013) allows you to save JMP output and/or embed JMP code within a file that's appropriate for presentations. Figure 4 illustrates this. Below describes both methods.

SAVING JMP OUTPUT

Saving JMP output puts the JMP output into the journal, as shown in the lower part of Figure 4(right). This is very simple, as you simply copy and paste. However, it's a little more involved than that, as you need to switch to the *selection cursor*, as shown in Figure 5. Using this, you can copy JMP output and paste it onto the JMP Journal.

The problem with saving JMP output, however, is that it isn't interactive. For that, you would need to save a link to a JMP analysis.

SAVING A LINK TO A JMP ANALYSIS

A link to a JMP analysis allows you to do a customized analysis simply by clicking on a link within the JMP Journal as shown in the upper part of Figure 4(right). The link will contain the JMP Scripting Language (JSL) code for generating the correct analysis. If you don't know JSL, it's no problem – you can get the code from a JMP analysis
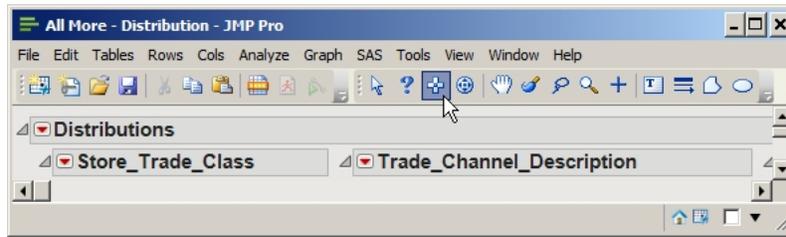
Figure 5: The selection cursor.
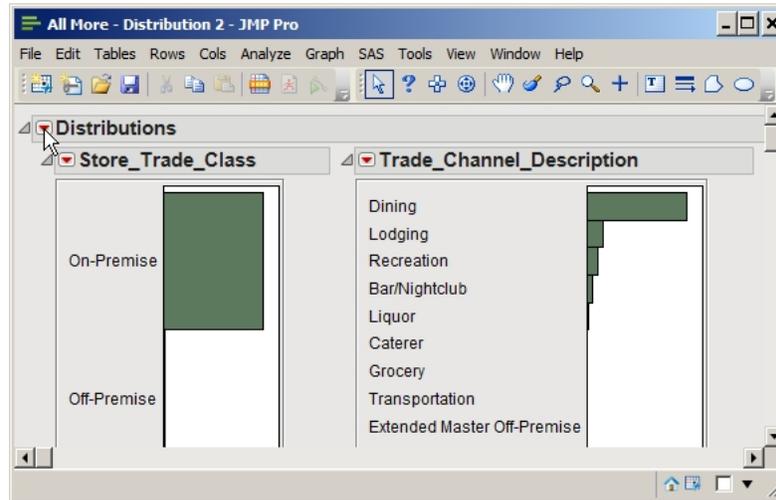
Figure 6: The red triangle. From here, go to *Script → Copy Script*.

very easily! For any analysis, go to the red triangle (Figure 6), then go to *Script → Copy Script*.

Once you have it copied, how can you move it to a journal? Within a journal (which you can start via *File → New → Journal*), from the designated place within the journal, right click on *Add Script Button*. From here, you can add the script, which you might want to clean up so that it's more readable. After that, just click on the link to launch the appropriate analysis.

WRITING NOTES AND ANNOTATIONS

Whether you have output or a link to a JMP analysis, you will most likely want to add notes or annotations to the output. For example, in Figure 4, there are bullet points reminding you the interesting points about the analysis. This can be done from within the JMP journal editor, although it's a little different from word processing software like Microsoft Word.

An *annotation* refers to a note in some background (I use yellow) in any part of the journal, as shown in Figure 7. To get this, go to *Tools → Annotate* within the journal, then place it in your desired spot.

CONCLUSIONS

Doing an analysis in JMP often involves a series of point-and-click sequences which can be difficult or awkward to do in a presentation to a boss or client. A JMP Journal helps this by embedding either the JMP output or the JMP code which creates the (interactive) analysis.
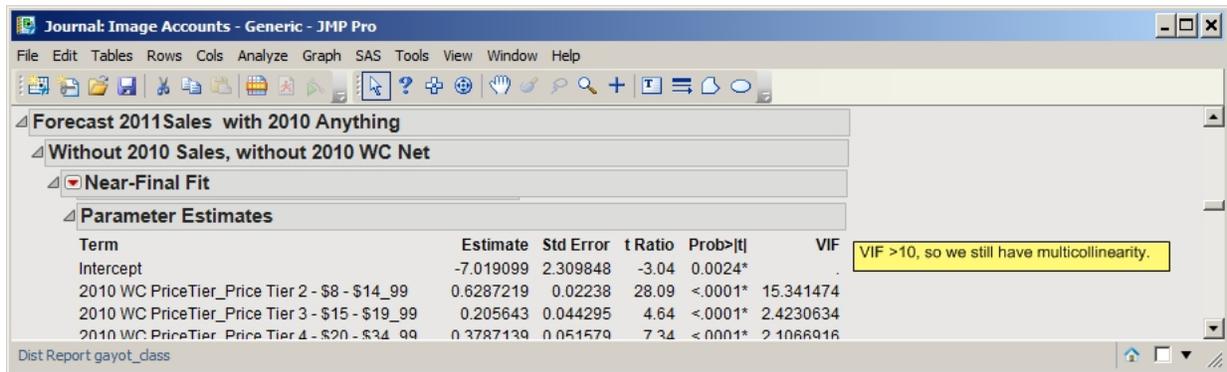
Figure 7: A JMP Annotation.

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REFERENCES

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