Heat Map

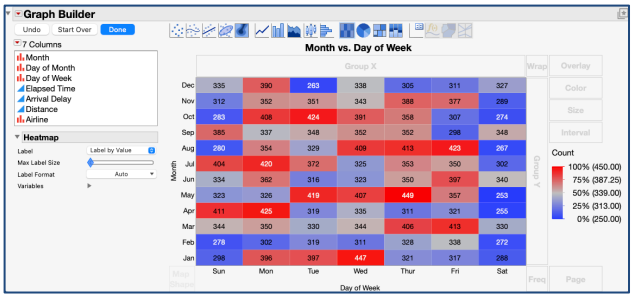
Use to display the values of a numeric variable across different levels of multiple categorical variables.

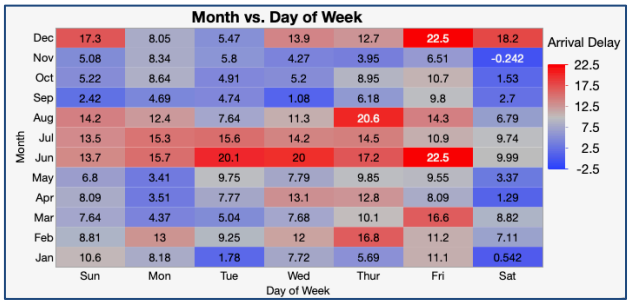
Heat Map – 2 Categorical Variables

A heat map is similar to a bar chart in the information it displays. A heat map, however, can often convey the information in a much clearer way.

1. Launch **Graph > Graph Builder**.

Airline Delays.jmp (under Help > Sample Data) Folder)



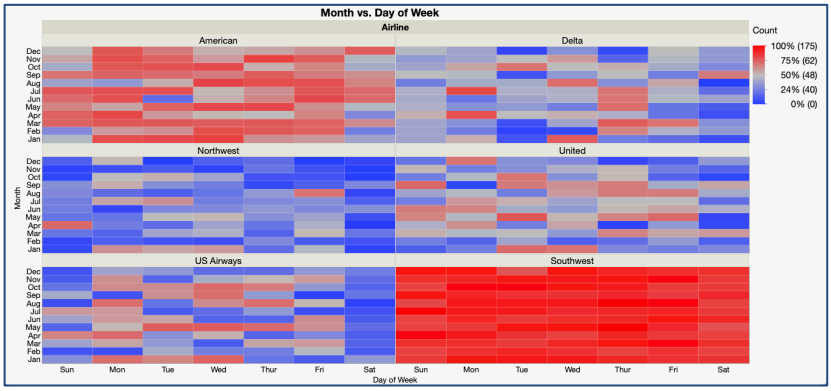


- Place a categorical variable on the **X axis** and another on the **Y axis**. Here we placed 'Month' on the Y and 'Day of Week' on the X.
- Select the Heat map icon in the graph palette.
- For these variables, there are 12 X 7 = 84 cells. Each delayed flight is a row in the data table. The frequency of delayed fights for each of these cells (i.e., number of rows) is displayed via the color coding. Option to display the data values was selected in the controls on the left. The color theme and gradient can be changed by right-clicking on the legend. Here we chose the quantile scale.
- A continuous variable can be used for the color by placing it in the **color zone** and the average value will be displayed. Here we used 'Arrival Delay'.

If the data table is in summarized format. That is, there's a single row for each set of levels for the categorial variables, and a column with a numeric value (e.g., count), you'll need to place that frequency variable into the **color zone**.

Heat Map – Incorporating More than 2 Categorial Variables

- Additional categorical variables can be incorporated by placing them into desired zones in the graph. Here we placed 'Airline' in the **Wrap zone**.



Visit **Discovering JMP > Visualize Your Data** and **Essential Graphing** in **JMP Help** to learn about more ways to visually explore data.