

Visualize and Summarize Data

Use this guide to:

- Create graphs using the Graph Builder platform. Customize graphs by changing the type of graph, updating the type of summary statistic and involving multiple variables.
- Create tables using the JMP Tabulate utility.

Note: The Restaurant Tips sample data is used here as an example (go to Get Started > Visualize and Summarize Data > Open Data).

Create Graphs

Graph Builder allows drag-and-drop graph creation. To create graphs from your data:

1. Open Graph Builder (Graph > Graph Builder).
2. Drag a column to the x-axis and another to the y-axis, based on what you want to graph. For example, to view how bill amounts vary across days of the week, drag “Day of Week” to the x-axis, and drag “Bill Amount” to the y-axis. JMP shows the points for this data.

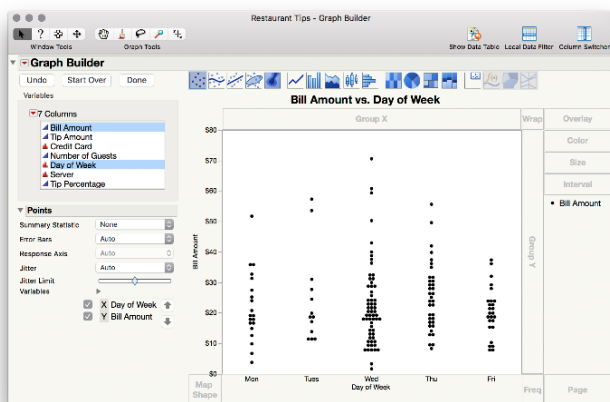


Figure 1: Example Graph - Bill Amount vs. Day of Week

3. To see the data using a different chart type, select a chart above the graph. For example, to view the data in a bar chart, click the bar thumbnail above

the graph. JMP recreates the graph in bar chart format, showing the average (mean) bill amount for each day of week.

4. To see the sum (or total) bill amounts for each day of week, change the Summary Statistic from “Mean” to “Sum” using the drop-down menu.
5. You can include additional variables from your data set in the graph. For example, to split the “Day of Week” bars by whether or not a credit card was used as payment, drag “Credit Card” to the overlay role. JMP shows separate bars for credit card and non-credit card payment.
6. You can also modify the way charts are displayed. For example, to change the way bars are displayed, change Bar Style from “Side by side” to “Stacked”.

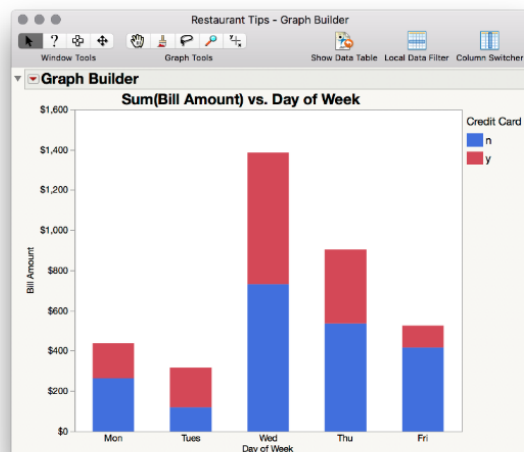


Figure 2: Stacked bar chart for Bill Amount Sum vs. Day of Week by Payment

7. Click Done to hide the controls and see the final graph. To view the controls again, click the Graph Builder red triangle and select Show Control Panel.
8. You can customize characteristics of the graph, including the title or axis labels.
9. To save the graph, click File > Export (Mac) or File > Save As (Windows).

Create Tables

You can create tables in JMP to accompany your graphs. To create a table, go to Analyze > Tabulate. Tabulate is drag-and-drop table creation. To create a table:

1. Drag a column into a table drop zone (for example, “Bill Amount”). JMP highlights the zones where you are allowed to drop the column. You can see the bill amount total sum for this column.
2. To split the bill amount sum by days of week, drag “Day of Week” to the left of the sum. The table displays the total for each day.
3. You can include additional variables in your table. For example, to add “Credit Card”, drag “Credit Card” to the right of “Day of Week” and drop it when the highlighted zone appears. You can also drag “Credit Card” above “Bill Amount” to see the different values for “Credit Card” side by side.
4. Click Done to hide the controls and see the final table.

Note: Values in JMP are dynamically linked. When you click a value in the table, the corresponding rows in the table are highlighted, and the bars in the graph are highlighted as well.

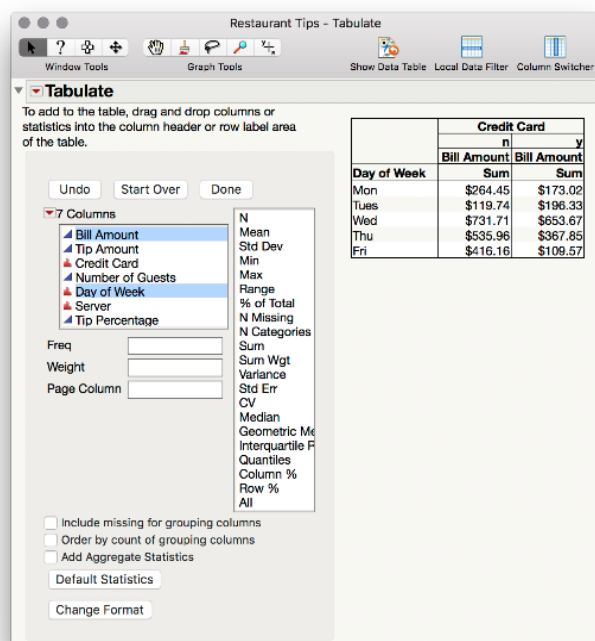


Figure 3: Create table using Tabulate