

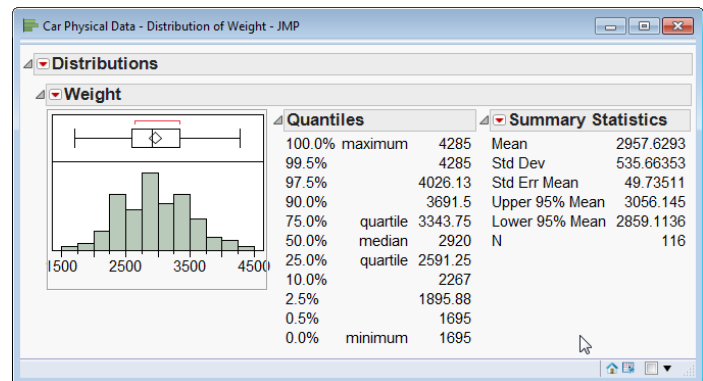
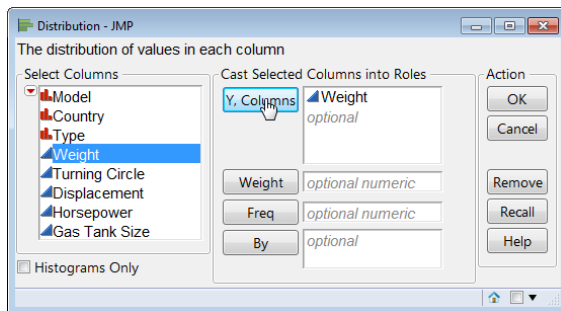
# Histograms, Descriptive Statistics, and Stem and Leaf

Use to display and describe the distribution of continuous (numeric) variables. Histograms and stem and leaf plots allow you to quickly assess the shape, centering and spread of a distribution. For categorical (nominal or ordinal) variables, see the page **Bar Charts and Frequency Distributions**.

## Histograms and Descriptive Statistics

1. From an open JMP® data table, select **Analyze > Distribution**.
2. Click on one or more continuous variables from **Select Columns**, and click **Y, Columns** (continuous variables have blue triangles).
3. Click **OK** to generate a histogram, outlier box plot and descriptive statistics.
  - The percentiles, including quartiles and the median, are listed under **Quantiles**.
  - The sample mean, standard deviation and other statistics are listed under **Summary Statistics**.

Example: Car Physical Data.jmp (Help > Sample Data)



Tips:

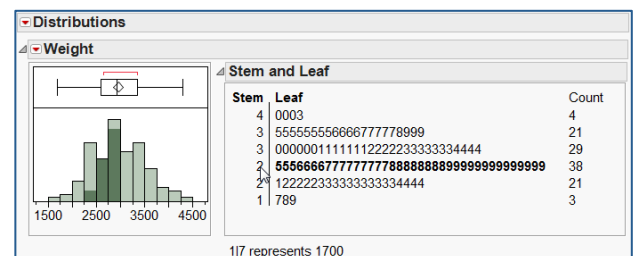
- To change the display from vertical to horizontal (as shown), click on the **top red triangle** and select **Stack**.
- To change the graphical display for a variable, or to select additional options, click on the **red triangle** for that variable.
- To display different summary statistics, use the **red triangle** next to **Summary Statistics**.
- To change all future output to horizontal, go to **Preferences > Platforms > Distribution**, click **Stack** and **Horizontal**, then click **OK**.

## Stem and Leaf Plot

To generate a stem and leaf plot, click on the **red triangle** for the variable and select **Stem and Leaf**.

Tips:

- A key to interpret the values is at the bottom of the plot. The top value in this example is 4300, the bottom value is 1700 (values have been rounded to the nearest 100).
- Click on values in the stem and leaf plot to select observations in both the histogram and the data table. Or, select bars in the histogram to select values in the stem and leaf plot and data table.



Note: For more information, see the book **Basic Analysis** (under **Help > Books**).