Correlation is a measure of the linear association between two variables. This page documents the two platforms in JMP® for assessing correlation. For additional information on nonparametric correlations, see the page Nonparametric Correlations.

Correlation Between Two Variables

1. From an open JMP data table, select Analyze > Fit Y by X.
2. Click on a continuous variable from Select Columns, and click Y, Response (continuous variables have blue triangles).
3. Click on a second continuous variable, and click X, Factor.
4. Click OK to generate a scatterplot.
5. To display the correlation, click on the red triangle and select the Density Ellipse > 0.95.
   - A 95% density ellipse, which graphically shows the correlation, will display on the scatterplot.
   - To show the correlation coefficient, click on the gray icon next to Bivariate Normal Ellipse.

Correlations Between Multiple Pairs of Variables

1. From an open JMP data table, select Analyze > Multivariate Methods > Multivariate.
2. Click on two or more continuous variables from Select Columns, and click Y, Columns.
3. Click OK to produce a scatterplot matrix with density ellipses and a table of correlations.
   - The Default estimation method allows JMP to determine the method for estimating correlations that is most appropriate for your data set.

Tips:

- Many additional correlation options are available under the red triangle next to Multivariate, including:
  - CI of Correlations.
  - Inverse Correlations.
  - Partial Correlations.
  - Pairwise Correlations (Pearson product-moment).
  - Nonparametric Correlations (including Spearman’s rho).
- Scatterplot options are available under the red triangle next to Scatterplot Matrix.

Notes: Density ellipses can also be generated from Graph > Scatterplot Matrix and Graph > Graph Builder. For additional information, search for “correlation” in the JMP Help.