

# Parallel Plot

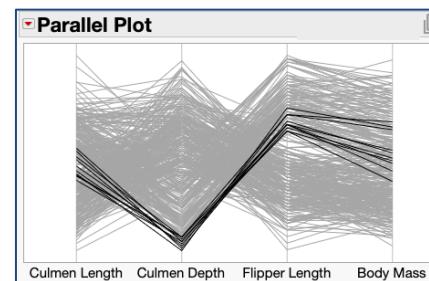
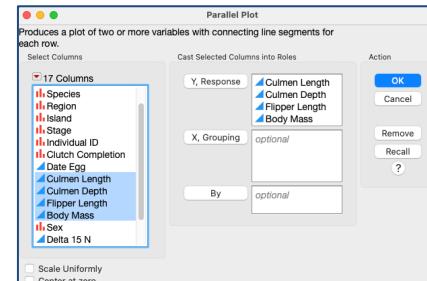
Use to compare data values across a set of numeric variables and between groups of categorial variables.

## Parallel Plot

1. Select **Graph > Parallel Plot**.
2. Select a set of continuous variables from the **Columns list**, and add to **Y, Columns**. Click **OK**.
  - A parallel plot will be shown. Each observation (here a penguin) will be a line on the graph. The values for all the variables are rescaled to a quantile scale. Thus, the highest value for any variable is the top line, the lowest value the bottom line, and the median being the center of the vertical axis.
  - Individual or sets of observations can be selected to see and compare the values across the other variables. Here we selected the 10 penguins with the shortest Culmen Depth.

**Note:** A Parallel Plot can also be made using **Analyze > Multivariate Methods > Multivariate** and in **Graph Builder**.

Penguins.jmp (under Help > Sample Data Folder)



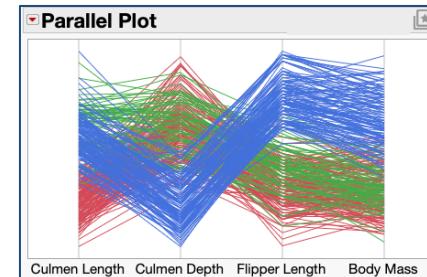
## Parallel Plot – Incorporating a Categorical Variable

- A Categorical variable can be incorporated to aid in comparing data across groups by utilizing **row states**.
- Here we used different colors for the three penguin species.

To add **row states** to the data table:

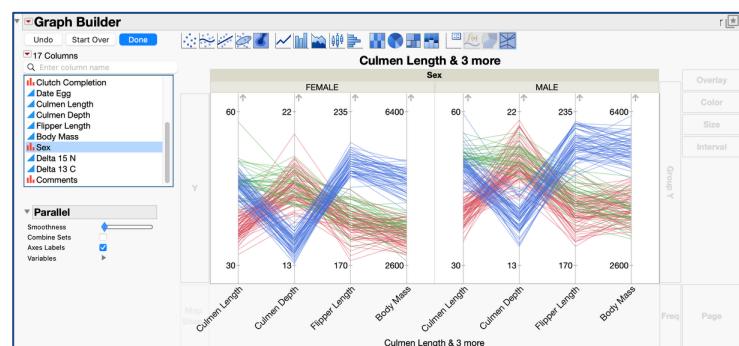
Select **Rows > Color or Mark by Columns**. Choose the variable you wish to use for the different colors. Here we chose the variable 'Species'. Click **OK**.

**Note:** the default colors can be changed by right-clicking on the colors in the dialog box and choosing desired ones.



## Parallel Plot – Graph Builder

1. Select **Graph > Graph Builder**.
2. Place all the continuous variable you wish to compare on the **X axis**.
3. Choose the Parallel Plot icon in the graph Palette. 
4. Additional categorical variables can be incorporated by placing them into different zones. Here we placed 'Sex' on the **Group X zone**.



Visit **Essential Graphing > Parallel Plots** in **JMP Help** to learn more.