Histogram in Jamovi

Cheatsheet

2024-07-28

About

The histogram is a bar plot that shows the frequency of (often) continuous values in a dataset. It helps identify patterns, outliers, and the shape of the distribution (skewness, kurtosis).

> **i** Assumed knowledge
>
> - You have Jamovi installed, ideally 2.5.7.0 or later.
> - You can follow instructions to select, click and drag elements in Jamovi.

> **!** Data structure
>
> The data should be in a **long format** (also known as tidy data), where each row is an observation and each column is a variable (Figure 1). If your data is not already structured this way, reshape it manually in a spreadsheet program or in R using the `pivot_longer()` function from the `tidyr` package.

Sex	BW
F	2.15
M	2.55
F	2.95
F	2.70
M	2.20
F	1.85
M	2.55
M	2.60

F	M
2.15	2.55
2.95	2.20
2.70	2.55
1.85	2.60

Figure 1: Data should be in long format (left) where each row is an observation and each column is a variable. This is the preferred format for most statistical software. Wide format (right) is also common, but may require additional steps to analyse or visualise in some instances.

Data

Download data

We have two separate datasets. The first dataset is part of the possums dataset used in BIOL2022 labs. It contains two numerical variables: `ExpBLUP` and `AactiveTBLUP`. The data is available in the file `possums-blup.csv`.
The second dataset, `penguins.csv`, contains data collected by Dr. Kristen Gorman and the Palmer Station, Antarctica LTER. Details about the dataset can be found here.

Import data into Jamovi

1. Click on the Menu icon: 
2. Select Open > Browse, and navigate to the downloaded file.
3. Click Open to load the data.

Plot

1. Click on the **Analyses** tab.
2. Select **Exploration** > **Descriptives**.
3. Drag the variables you want to plot into the **Variables** box. It should be a numerical variable, e.g. `bill_length_mm` from the `penguins` dataset.

4. Select **Histogram** from the **Plots** dropdown menu.

Extra options

1. If you want to colour the points by a categorical variable, drag the categorical variable into the **Split by** box. For example, you can split the histogram by the `species` variable in the `penguins` dataset.
2. Layer an additional density plot by selecting **Density** from the **Plots** dropdown menu.
3. Rename variables by clicking on the variable name in the **Variables** tab.

Export

To export the plot, right click on the plot, select Image > Export… > Browse and rename the file before clicking on the Save button.

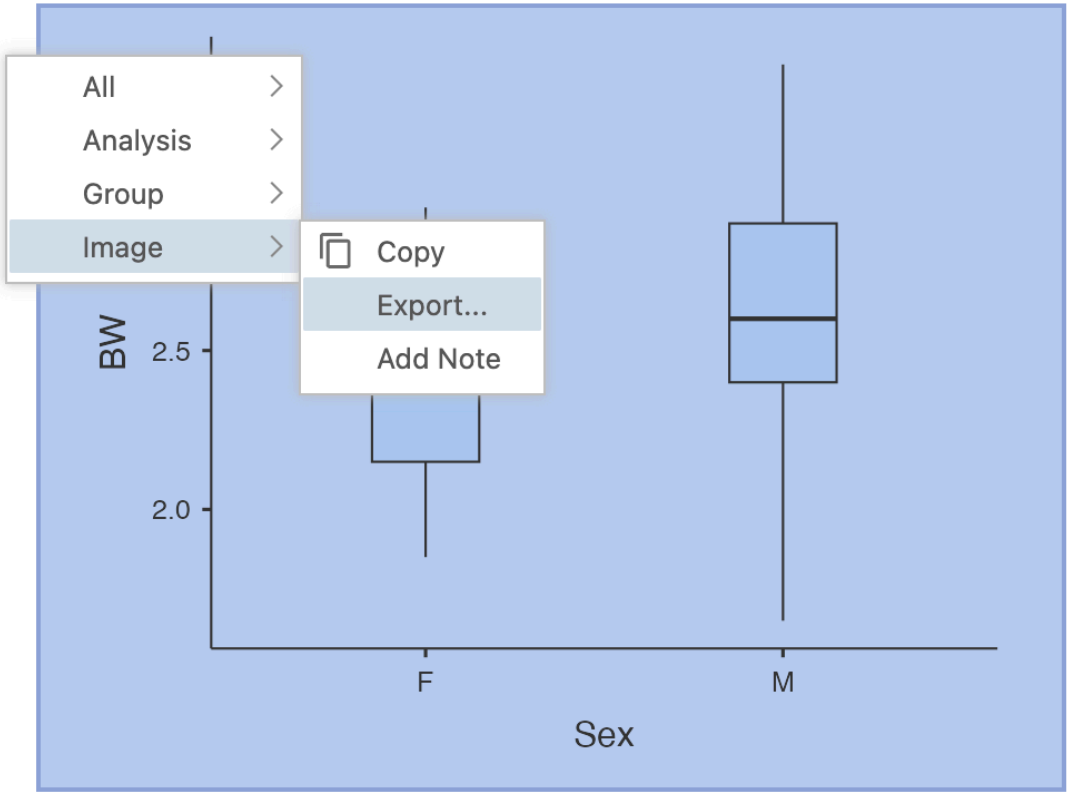

Figure 2: A popup window should appear when you right click on a plot, where you can export the image. Click on the image to expand it.

Resources

- Jamovi website
- datalab.cc Jamovi tutorials – useful video tutorials on how to use Jamovi. Note: videos are from 2020 and may be dated. Click on the menu icon ( ) at the top right of the video to see the full list of tutorials.

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