

# Intro to R

Data Visualization with Esquisse

# Esquisse Package

```
# install.packages("esquisse")  
library(esquisse)
```

# Esquisse Package

The [esquisse package](#) is helpful for getting used to creating plots in R.

It is an interactive tool to help you in RStudio.

It's super **nifty**!



# Starting a plot

Using the `esquisser()` function you can start creating a plot for a `data.frame` or `tibble`. That's it!

```
esquisser(mtcars)
```

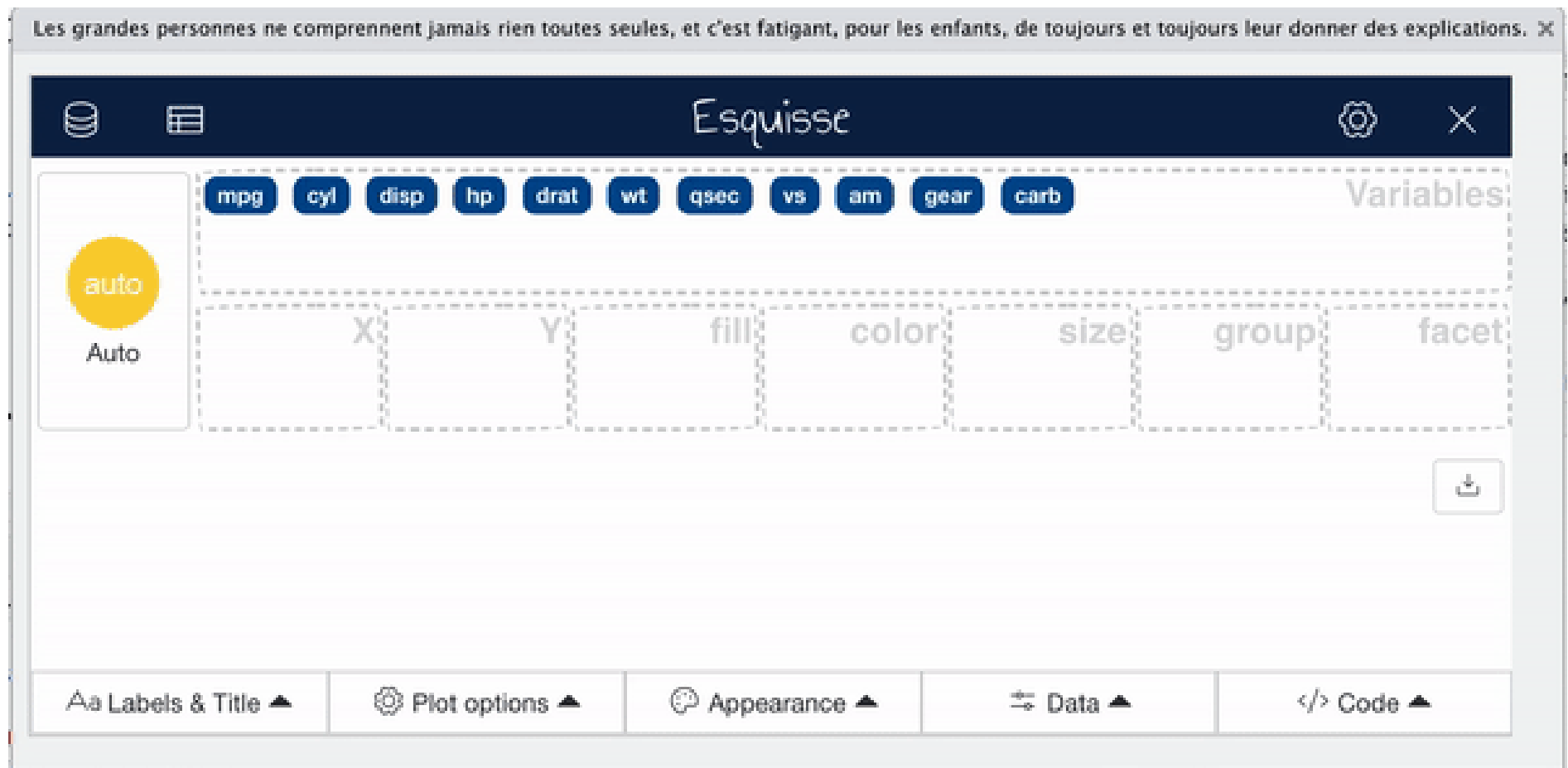


## Show the plot in the browser

```
esquisse::esquisser(iris, viewer = "browser")
```

# Select Variables

To select variables you can drag and drop variables to the respective axis that you would like the variable to be plotted on.



## Find code

To select variables you can drag and drop variables to the respective axis that you would like the variable to be plotted on.



# Change plot type

esquisse automatically assumes a plot type, but you might want to change this.





# Add Facets

Facets create multiple plots based on the different values of a variable.



# Add size

Sometimes it is useful to change the way points are plotted so that size represents a variable. This can especially be helpful if you need your plot to be black and white.



# Add color

For plots with points use the color region to change coloring according to a variable. (use “fill” for bar plots)



# Appearance

You can change the overall appearance with the appearance tab.



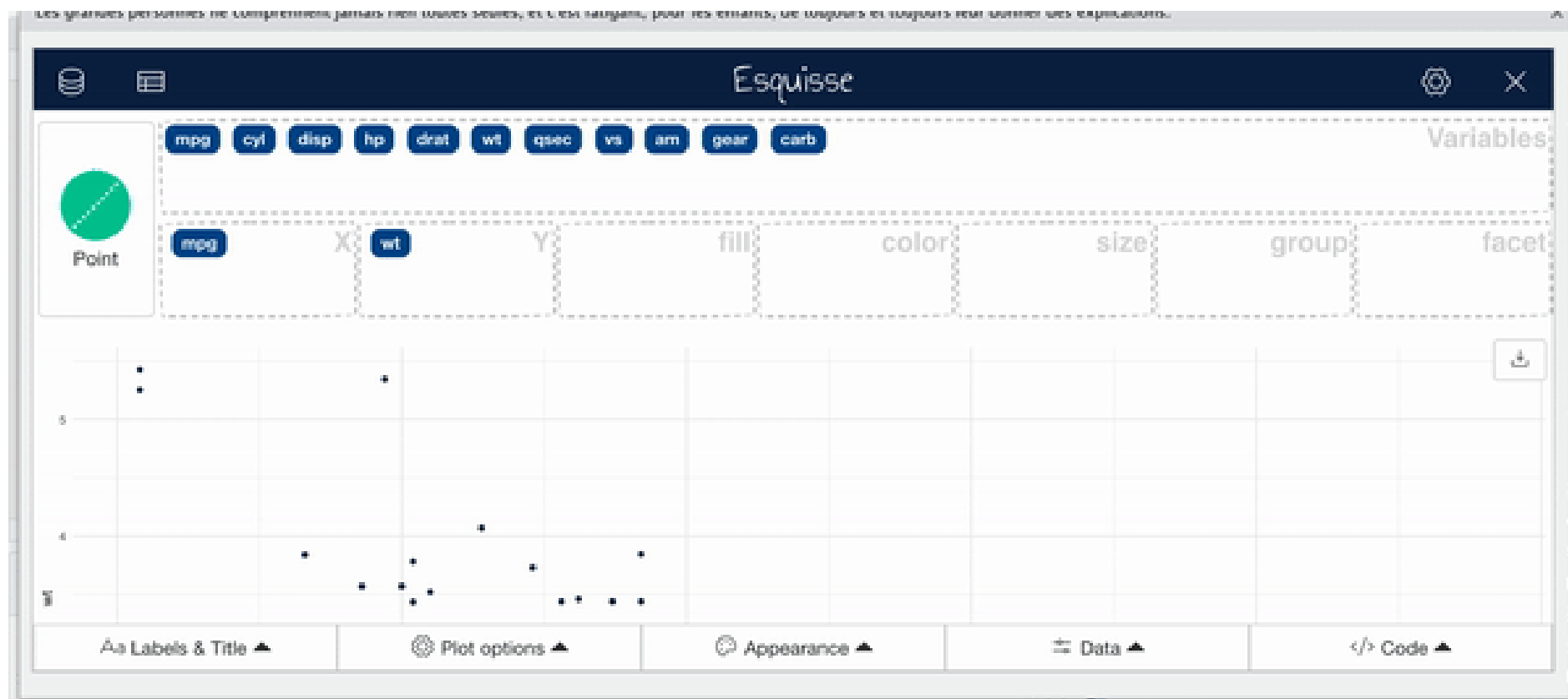
# Smooth Lines

Especially when you have a scatter plot, it can be helpful to add a smooth/trend line.



# Change titles

To change titles on your plot, use the titles tab.



## Wide & Long Data Example

```
library(jhur)
wide_circ <- read_circulator()
```

```
## Rows: 1146 Columns: 15
## — Column specification —————
## Delimiter: ","
## chr (2): day, date
## dbl (13): orangeBoardings, orangeAlightings, orangeAverage, purpleBoardings
##
## [ Use `spec()` to retrieve the full column specification for this data.
## [ Specify the column types or set `show_col_types = FALSE` to quiet this message.]
```

# Wide Data

```
library(dplyr)
glimpse(wide_circ)
```

```
## Rows: 1,146
## Columns: 15
## $ day      <chr> "Monday", "Tuesday", "Wednesday", "Thursday", "Fri
## $ date     <chr> "01/11/2010", "01/12/2010", "01/13/2010", "01/14/2
## $ orangeBoardings <dbl> 877, 777, 1203, 1194, 1645, 1457, 839, 999, 1023,
## $ orangeAlightings <dbl> 1027, 815, 1220, 1233, 1643, 1524, 938, 1000, 1047
## $ orangeAverage <dbl> 952.0, 796.0, 1211.5, 1213.5, 1644.0, 1490.5, 888.
## $ purpleBoardings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ purpleAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ purpleAverage <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ greenBoardings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ greenAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ greenAverage <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ bannerBoardings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ bannerAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ bannerAverage <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ daily <dbl> 952.0, 796.0, 1211.5, 1213.5, 1644.0, 1490.5, 888.
```



# Long Data

```
library(tidyr)
long_circ <- wide_circ %>%
  pivot_longer(
    cols = contains(c("boarding")),
    names_to = "Route",
    values_to = "Boardings"
  )
```

# Long Data

```
glimpse(long_circ)
```

```
## Rows: 4,584
## Columns: 13
## $ day          <chr> "Monday", "Monday", "Monday", "Monday", "Tuesday",
## $ date         <chr> "01/11/2010", "01/11/2010", "01/11/2010", "01/11/2010",
## $ orangeAlightings <dbl> 1027, 1027, 1027, 1027, 815, 815, 815, 815, 1220,
## $ orangeAverage  <dbl> 952.0, 952.0, 952.0, 952.0, 796.0, 796.0, 796.0, 796.0,
## $ purpleAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ purpleAverage  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ greenAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ greenAverage   <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ bannerAlightings <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ bannerAverage  <dbl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA, NA
## $ daily          <dbl> 952.0, 952.0, 952.0, 952.0, 796.0, 796.0, 796.0, 796.0,
## $ Route          <chr> "orangeBoardings", "purpleBoardings", "greenBoardings",
## $ Boardings      <dbl> 877, NA, NA, NA, 777, NA, NA, NA, 1203, NA, NA, NA, NA
```

## Make a plot of boardings by day for different routes

```
esquisser(wide_circ) # days as x...? Tricky!  
esquisser(long_circ) # day as x, Boardings as y, Route as fill
```

## Summary

- Use the `esquisser()` function on a dataset
- Code from Esquisse can be copied into code chunks to be generated in the “Plots” pane

# Lab

[Class Website](#)

[Lab](#)



Image by [Gerd Altmann](#) from [Pixabay](#)