Table of Contents

Plot.ly Charts using PluginR and Tiki ................................................................. 2
  Installing Plotly ........................................................................................................ 2
  Overlaid Histograms .................................................................................................. 3
  Log-normal Boxplot .................................................................................................. 4
  HeatMaps .................................................................................................................... 5
  More types of charts... ............................................................................................... 1
  Collaborating and Sharing ....................................................................................... 1
Plot.ly Charts using PluginR and Tiki


See
- https://plot.ly/
- https://plot.ly/api/r/

The Plotly R graphing library allows you to create and share interactive, publication-quality plots in your browser. Plotly is also built for working together, and makes it easy to post graphs and data publicly with a URL or privately to collaborators.

Page contents
- Installing Plotly
- Overlaid Histograms
- Log-normal Boxplot
- HeatMaps
- More types of charts...
- Collaborating and Sharing

Installing Plotly

```r
# Install the required packages if you don't have them yet
if(!require(devtools)){
  install.packages("devtools",
  repos="http://ftp.heanet.ie/mirrors/cran.r-project.org/")
}
require("devtools")
if(!require(RCurl)){
  install.packages("RCurl",
  repos="http://ftp.heanet.ie/mirrors/cran.r-project.org/")
}
if(!require(bitops)){
  install.packages("bitops",
  repos="http://ftp.heanet.ie/mirrors/cran.r-project.org/")
}
if(!require(RJSONIO)){
  install.packages("RJSONIO",
  repos="http://ftp.heanet.ie/mirrors/cran.r-project.org/")
}

# Next, install plotly (a big thanks to Hadley, who suggested the GitHub route):
if(!require(plotly)){
  devtools::install_github("plotly/R-api")
}
```
# Then sign-up like this (adapt username and email to your choice) or at https://plot.ly/:
require(plotly)
response = signup (username = 'yournewusername', email='youremail@example.com')

# You'll get as output in the R console:
#
## Thanks for signing up to plotly!
## Your username is: yournewusername
## Your temporary password is: yourtemppassword. You use this to log into your plotly account at https://plot.ly/plot.
## Your API key is: API_Key. You use this to access your plotly account through the API.
## To get started, initialize a plotly object with your username and api_key, e.g.
## >>> p <- plotly(username="yournewusername", key="API_Key")
## Then, make a graph!
## >>> res <- p$plotly(c(1,2,3), c(4,2,1))

# And we’re up and running! You can change and access your password and key in your homepage.

{RR}

Overlaid Histograms

{RR(echo="0", cacheby="pagename", wikisyntax="0")}
# 1. Overlaid Histograms:
# ------------------------
require(plotly)
p <- plotly(username="yournewusername", key="API_Key")

x0 = rnorm(500)
x1 = rnorm(500)+1
data0 = list(x=x0,
          type='histogramx',
          opacity=0.8)
Log-normal Boxplot

```r
# 2. Log-normal Boxplot
# ------------------------
require(plotly)
p <- plotly(username='USERNAME', key='API_KEY')
x <- c(seq(0,0,length=1000),seq(1,1,length=1000),seq(2,2,length=1000))
y <- c(rlnorm(1000,0,1), rlnorm(1000,0,2), rlnorm(1000,0,3))
```
HeatMaps

```r
# Days of the Week Heatmap Demo
# Questions? Email feedback@plot.ly
# For more docs, see plot.ly/api
require(RColorBrewer)
require(plotly)
pf <- plotly(username='yournewusername', key='API_Key')
x <- c('Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday')
y <- c('Morning', 'Afternoon', 'Evening')
z <- list(
    c(1., 20., 30, 50, 1),
    c(20., 1., 60, 80, 30),
    c(30., 60., 1., -10, 20)
)
```
# Color brewer YlOrBr colorscale http://colorbrewer2.org
# scl=[[[0,"rgb(128, 0, 38)"]],[0.125,"rgb(189, 0, 38)"]],[0.25,"rgb(227, 26, 38)"]],
#       [0.375,"rgb(252, 78, 42)"],[0.5,"rgb(253, 141, 60)"],[0.625,"rgb(254, 178, 76)"],
#       [0.75,"rgb(254, 217, 118)"],[0.875,"rgb(255, 237, 160)"],[1,"rgb(255, 255, 204)"]]
scl <- brewer.pal(9,'YlOrBr')
data <- list(
    x = x,
    y = y,
    z = z,
    scl= list(
        c(0,"rgb(128, 0, 38)"),
        c(0.125,"rgb(189, 0, 38)"),
        c(0.25,"rgb(227, 26, 38)"),
        c(0.375,"rgb(252, 78, 42)"),
        c(0.5,"rgb(253, 141, 60)"),
        c(0.625,"rgb(254, 178, 76)"),
        c(0.75,"rgb(254, 217, 118)"),
        c(0.875,"rgb(255, 237, 160)"),
        c(1,"rgb(255, 255, 204)"
    ),
    type = 'heatmap'
)
response <- py$plotly(data)

# url and filename
#unlist(response[1])
#filename <- response$filename

{RR}
{iframe name=myPlotlyChart width=800 height=600 align=middle frameborder=0 marginheight=0 marginwidth=0 scrolling=auto src="https://plot.ly/~ueb/15/"}
More types of charts...

For more examples of chart types possible with Plot.ly and R, see:

- [https://plot.ly/api/r/](https://plot.ly/api/r/)

Collaborating and Sharing

# Collaborating and Sharing: You’re in Control
# ---------------------------------------------
#
# Keep in mind that:
#
# (1) You control if graphs are public or private, and who you share with
#     (like Google Docs)
# (2) Public sharing in Plotly is free (like GitHub).
#
# To share privately, press “Share” in our GUI or share with your script.
# Users you share with get an email and can edit and comment on graphs.
# That means no more emailing data, graphs, screenshots, and spreadsheets
# around: you can do it all in Plotly.
# You can also save and apply custom themes to new data to avoid re-making
# the same graphs with new data.
# Just upload and apply your theme.