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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.

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Installing Plotly

```r
# Installing Plotly
# -----------------------

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

# 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.

---

Overlaid Histograms

```r
{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
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)

py <- 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 YIOrBr colorscale http://colorbrewer2.org
# scl=[[[0,"rgb(128, 0, 38)"],[0.125,"rgb(189, 0, 38)"],[0.25,"rgb(227, 26,
#       [0.375,"rgb(252, 78, 42)"],[0.5,"rgb(253, 141,
#       [0.625,"rgb(254, 178, 76)"],
#       [0.75,"rgb(254, 217, 118)"],[0.875,"rgb(255, 237,
#       [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, 28)"),
                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/

Collaborating and Sharing

# Collaborating and Sharing: You’re in Control
# ---------------------------------------------
# Keeping 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.