

Package ‘EpiCurve’

August 24, 2017

Type Package

Title Plot an Epidemic Curve

Version 2.0-1

Date 2017-08-24

Description

Creates simple or stacked epidemic curves for hourly, daily, weekly or monthly incomes data.

License LGPL-3

Encoding UTF-8

LazyData true

Depends ggplot2, dplyr, ISOweek, scales, timeDate

Imports RColorBrewer

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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EpiCurve

*Plot an Epidemic Curve***Description**

This function plot an epidemic curve with ggplot2

Usage

```
EpiCurve(x, date = NULL, freq = NULL, cutvar = NULL,
         period = NULL, to.period = NULL, split = 1, cutorder = NULL, colors = NULL,
         title = NULL, xlabel = NULL, ylabel=NULL, note=NULL)
```

Arguments

x	data.frame with at least one column with Date type
date	character, name of Date column
freq	character, name of a column with a value to display
cutvar	character, name of a column with factors
period	character, c("hour", "day", "week", "month")
to.period	character, Convert date period to another period only for aggregated data. If period is "day", to.period can be "week" or "month". If period is "week", to.period can be "month".
split	integer, c(1,2,3,4,6,8,12) Value for hourly split
cutorder	character vector of factors
colors	character vector of colors
title	character, title of the plot
xlabel	character, label for x axis
ylabel	character, label for y axis
note	character, add a note under the graph

Details

When period is "week" the date MUST be in ISOweek format YYYY-WNN and library ISOweek is needed. When period is "month" the date MUST be formatted YYYY-MM.

When period is "hour" the date MUST be in timeDate format (YYYY-mm-dd HH:MM:SS) or (YYYY-mm-dd HH:MM)

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References

<<https://rlab-epiconcept.blogspot.fr/2016/09/courbes-epidemiques-avec-ggplot2.html>>

<https://fr.wikipedia.org/wiki/Courbe_épidémique>

Examples

```
# library(Epicurve)
date <- seq(as.timeDate("2017-05-10 21:35:22"), as.timeDate("2017-05-12 06:15:12"), by="12 min")
val <- rep(1, length(date))
tri <- rep(c("Alive", "Died", "Unknown"), length.out=length(date))
DF <- data.frame(date, val, tri)
names(DF) <- c("date", "value", "tri")
```

```
EpiCurve(DF,
  date = "date",
  freq = "value",
  period = "hour",
  split = 4,
  cutvar = "tri",
  ylabel="Number of cases",
  xlabel= "From 2017-05-10 21:35:22 To 2017-05-12 06:15:12",
  title = "Epidemic Curve")
```

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