The trip package

Michael D. Sumner

2013

Abstract

The **trip** package provides tools for working with animal track data.

1 Introduction

Basic use of the trip package.

2 Data input and validation

```
> library(trip)
> d <- data.frame(x = 1:10, y = rnorm(10), tms = Sys.time() + 1:10,
+     id = gl(2, 5))
> coordinates(d) <- ~x + y
> proj4string(d) <- CRS("+proj=laea")
> tr <- trip(d, c("tms", "id"))
> summary(tr)

Object of class trip
  tripID ("id") No.Records    startTime ("tms")      endTime ("tms") tripDuration
1             1          5 2013-08-07 12:51:30 2013-08-07 12:51:34      4 secs
2             2          5 2013-08-07 12:51:35 2013-08-07 12:51:39      4 secs
  tripDistance meanSpeed maxSpeed meanRMSspeed maxRMSspeed
1     6.167892  5551.103 7492.842     1334.821    5339.282
2     7.001643  6301.479 9787.465     1276.830    5107.318


Total trip duration: 8 seconds (0 hours, 8 seconds)


Derived from Spatial data:

Object of class SpatialPointsDataFrame
Coordinates:
        min       max
x  1.000000 10.000000
y -1.063207  1.572078
Is projected: TRUE
proj4string : [+proj=laea]
Number of points: 10
Data attributes:
     tms                        id
 Min.   :2013-08-07 22:51:30  1:5
 1st Qu.:2013-08-07 22:51:32  2:5
 Median :2013-08-07 22:51:34
```

```
 Mean    :2013-08-07 22:51:34
 3rd Qu.:2013-08-07 22:51:36
 Max.    :2013-08-07 22:51:39
```

3   Simple plotting
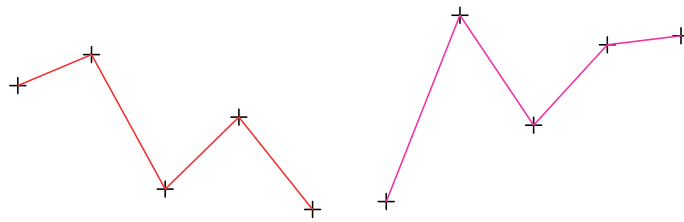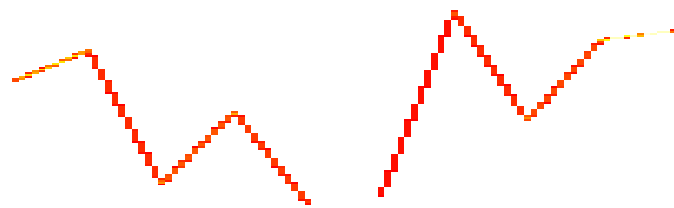
```
> plot(tr)
> lines(tr)
```


Figure 1: Plot of a very simple trip object.

4   Gridding for time spent

```
> tg <- tripGrid(tr)
> image(tg, col = c("transparent", heat.colors(25)))
```

5   Example data from diveMove