

The trip package

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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	2014-09-23 02:35:23	2014-09-23 02:35:27	4 secs
2	2	5	2014-09-23 02:35:28	2014-09-23 02:35:32	4 secs

	tripDistance	meanSpeed	maxSpeed	meanRMSspeed	maxRMSspeed
1	5.575677	5018.109	7232.448	1255.689	5022.755
2	4.993986	4494.588	6396.615	968.730	3874.920

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	-1.146009	1.789537

Is projected: TRUE

proj4string : [+proj=laea]

Number of points: 10

Data attributes:

	tms	id
Min.	:2014-09-23 12:35:23	1:5
1st Qu.	:2014-09-23 12:35:25	2:5
Median	:2014-09-23 12:35:27	

```
Mean    :2014-09-23 12:35:27
3rd Qu.:2014-09-23 12:35:29
Max.    :2014-09-23 12:35:32
```

3 Simple plotting

```
> plot(tr)
> lines(tr)
```

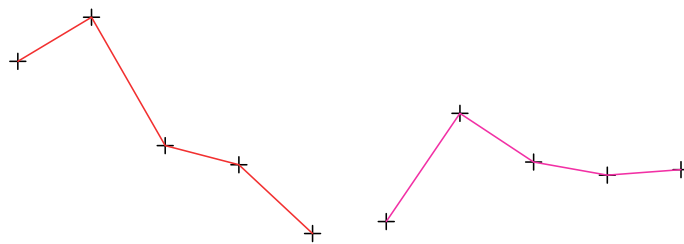
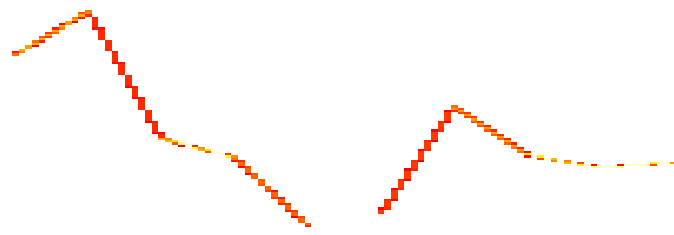


Figure 1: Plot of a very simple trip object.

4 Gridding for time spent

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



5 Example data from diveMove