# The trip package

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### 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 2013-08-25 07:48:50 2013-08-25 07:48:54       4 secs
2             2          5 2013-08-25 07:48:55 2013-08-25 07:48:59       4 secs
  tripDistance meanSpeed maxSpeed meanRMSspeed maxRMSspeed
1     6.216637  5594.974 6523.260    1161.7033    4646.813
2     4.358589  3922.731 4349.153     987.4362    3949.745


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 -1.409579  1.351959
Is projected: TRUE
proj4string : [+proj=laea]
Number of points: 10
Data attributes:
     tms                          id
 Min.   :2013-08-25 17:48:50   1:5
 1st Qu.:2013-08-25 17:48:52   2:5
 Median :2013-08-25 17:48:54
```

```
Mean    :2013-08-25 17:48:54
3rd Qu.:2013-08-25 17:48:56
Max.    :2013-08-25 17:48:59
```

# 3  Simple plotting

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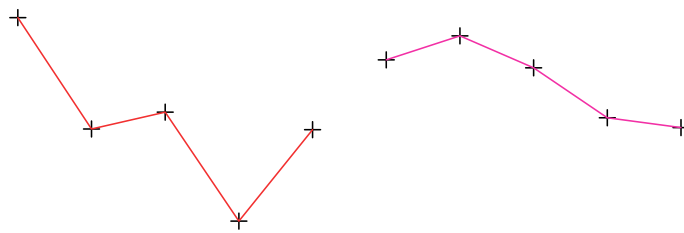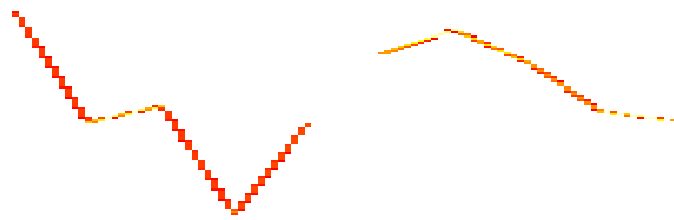


Figure 1: Plot of a very simple trip object.

# 4  Gridding for time spent

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

# 5 Example data from diveMove