multiSeg Vignette

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Introduction

Installation of the package throughth its github repository

```r
devtools::install_github("vrunge/multiSeg", force = TRUE)
```

```
## Downloading GitHub repo vrunge/multiSeg@master
## from URL https://api.github.com/repos/vrunge/multiSeg/zipball/master
```

```
## Installing multiSeg
```

```
## '/usr/lib/R/bin/R' --no-site-file --no-environ --no-save --no-restore  \
##   --quiet CMD INSTALL  \
##   '/tmp/Rtmpypizs1/devtools29e93a09902/vrunge-multiSeg-7b9a239'  \
##   --library='/home/vrunge/R/x86_64-pc-linux-gnu-library/3.4'  \
##   --install-tests
```

```
##
```

Loading the package

```r
library(multiSeg)
```

Choosing parameters to simulate data.

```r
n <- 500
var <- 1
means <- matrix(c(0,1,2,1,0,1,2,2,0,0,1,1),3,4)
changes <- c(0.3,0.6,1)
```
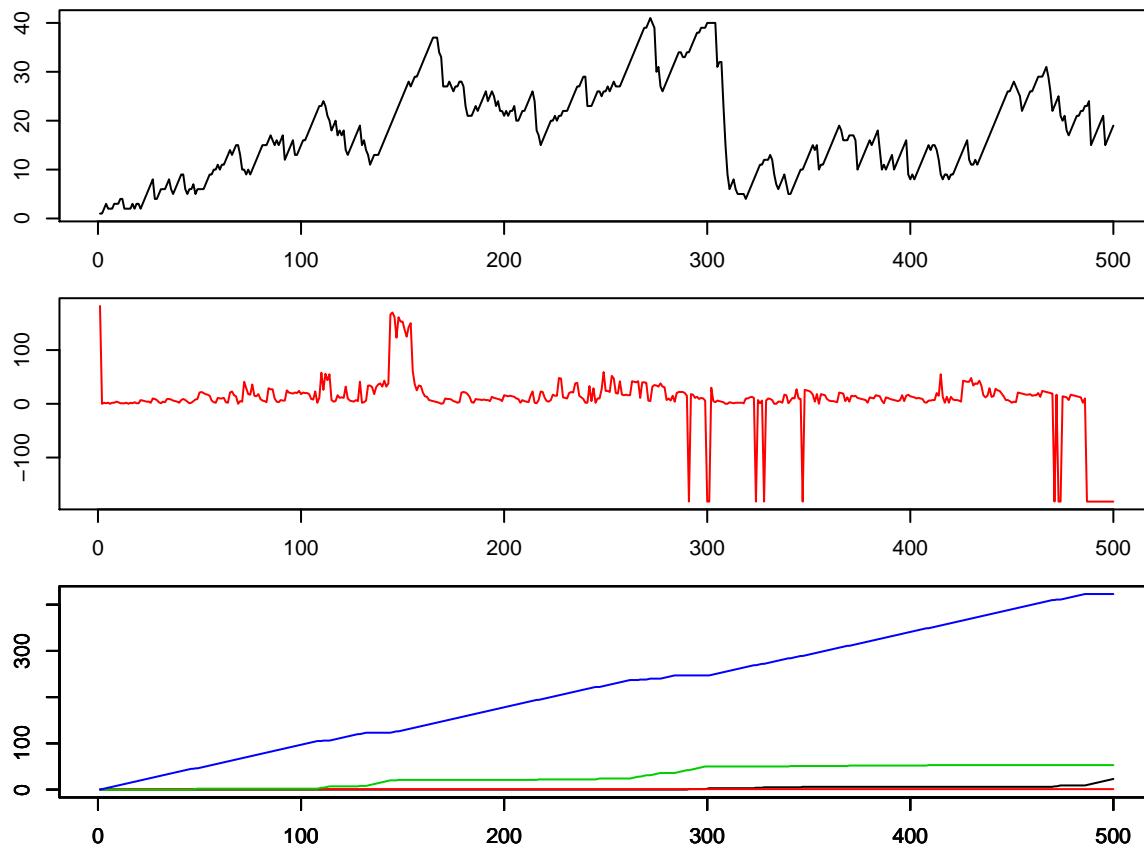
Data simulation

```r
data <- dataG(n,means,changes, var)
```

Segmentation algorithm

```r
file = paste(getwd(),"/dataG.txt",sep = "")
res <- multiSeg(file,4*2*log(n),3)
```
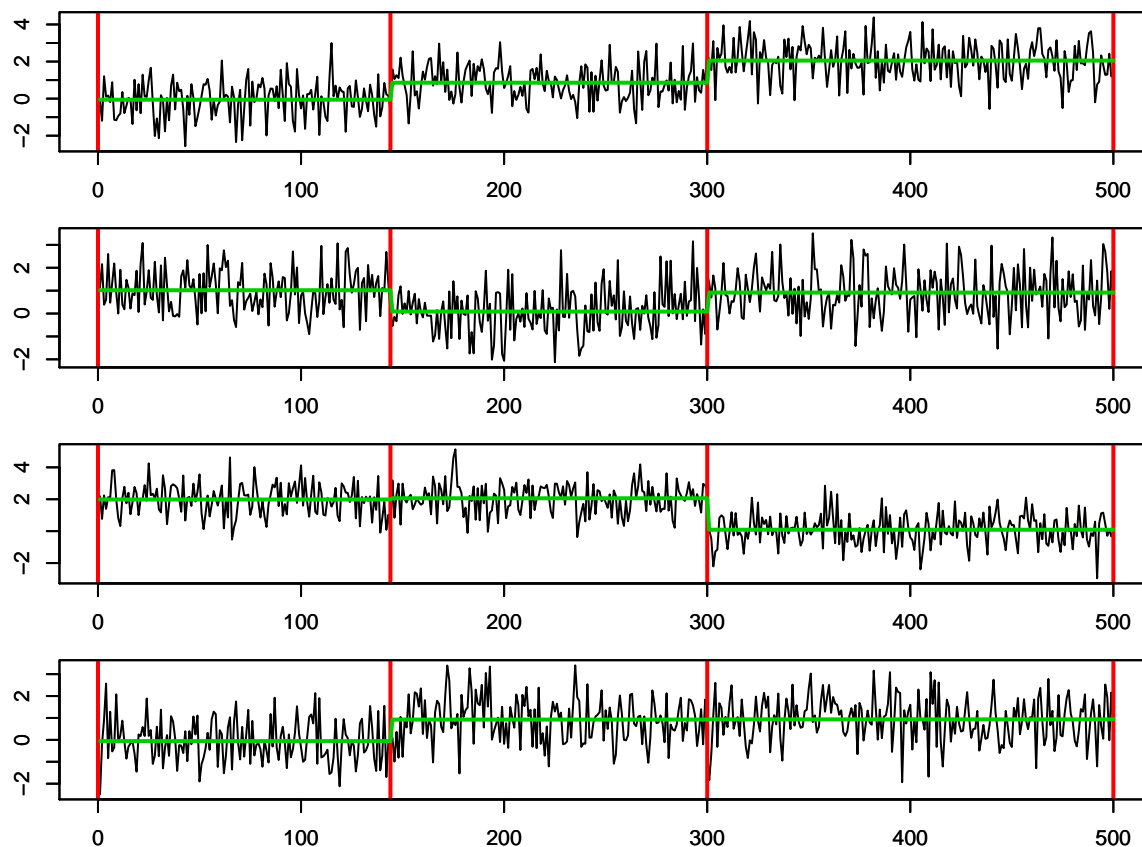
Plots

```r
pruning(res)
```

```
segmentation(file,res)
```
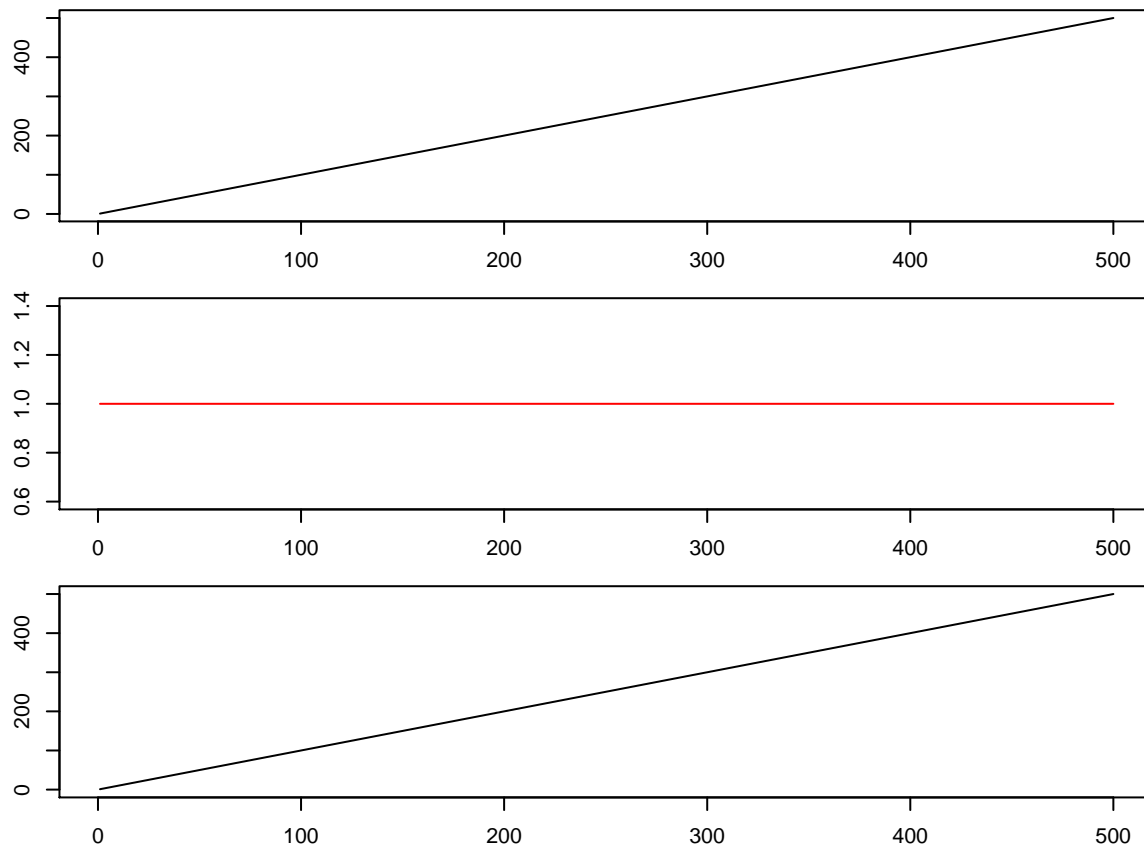
```
## [1]    0 144 300 500
```

```r
changepoints(res)
```
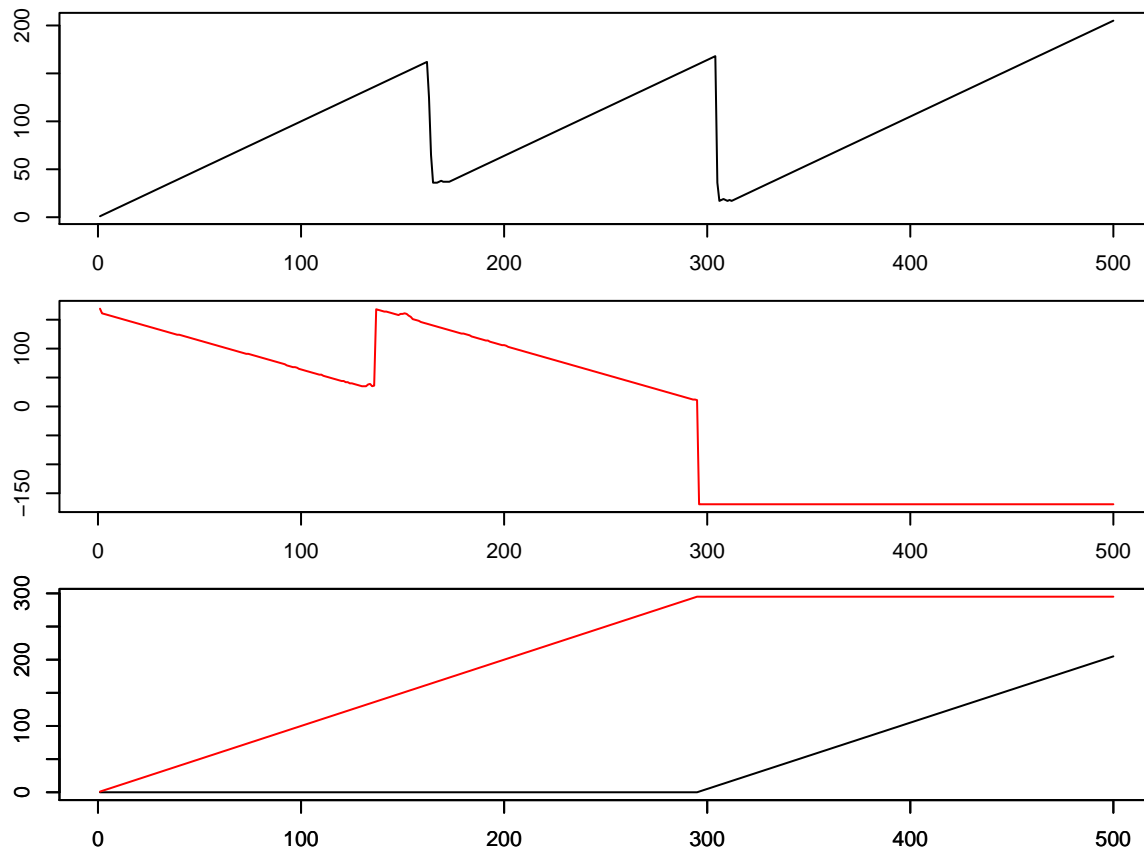
```
## [1]   0 144 300 500
```

Pruning

```r
n <- 500
var <- 1
means <- matrix(c(0,1,2,1,0,1,2,2,0,0,1,1),3,4)
changes <- c(0.3,0.6,1)
data <- dataG(n,means,changes, var)
file = paste(getwd(),"/dataG.txt",sep = "")
```
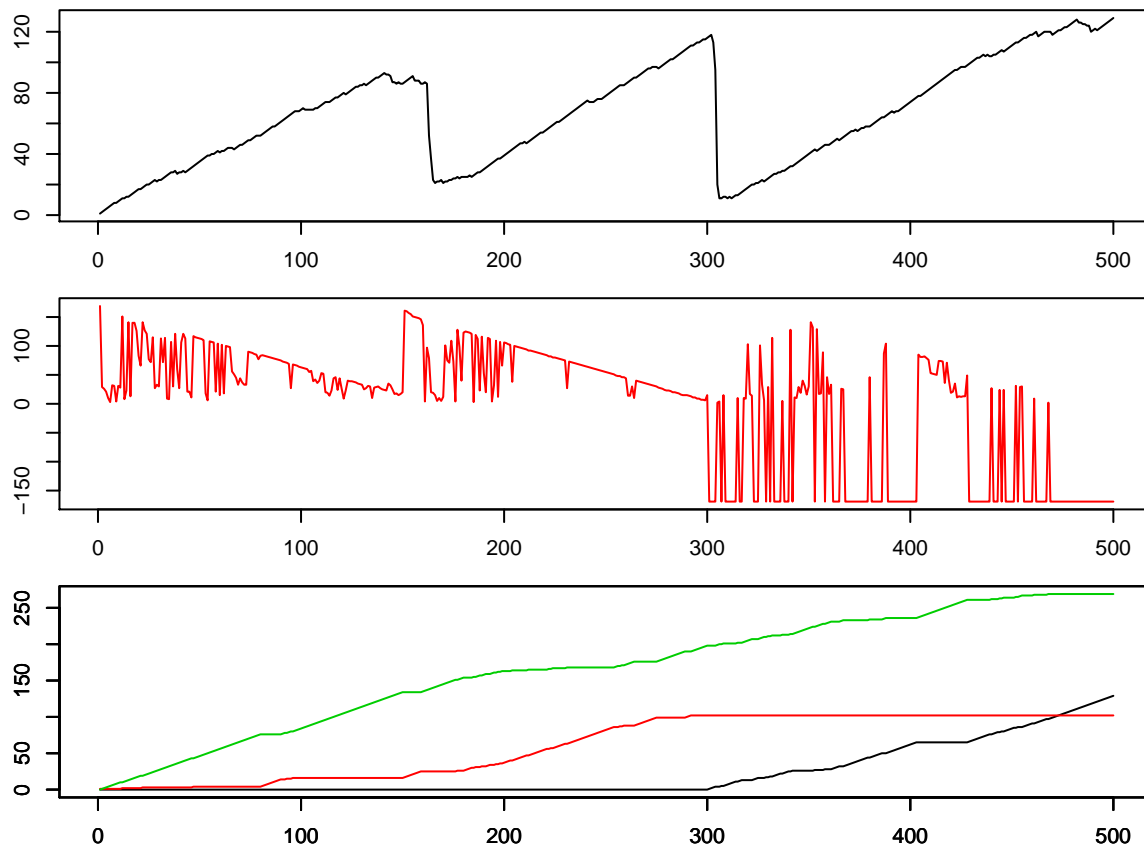
```r
res <- multiSeg(file,4*2*log(n),0)
pruning(res)
```
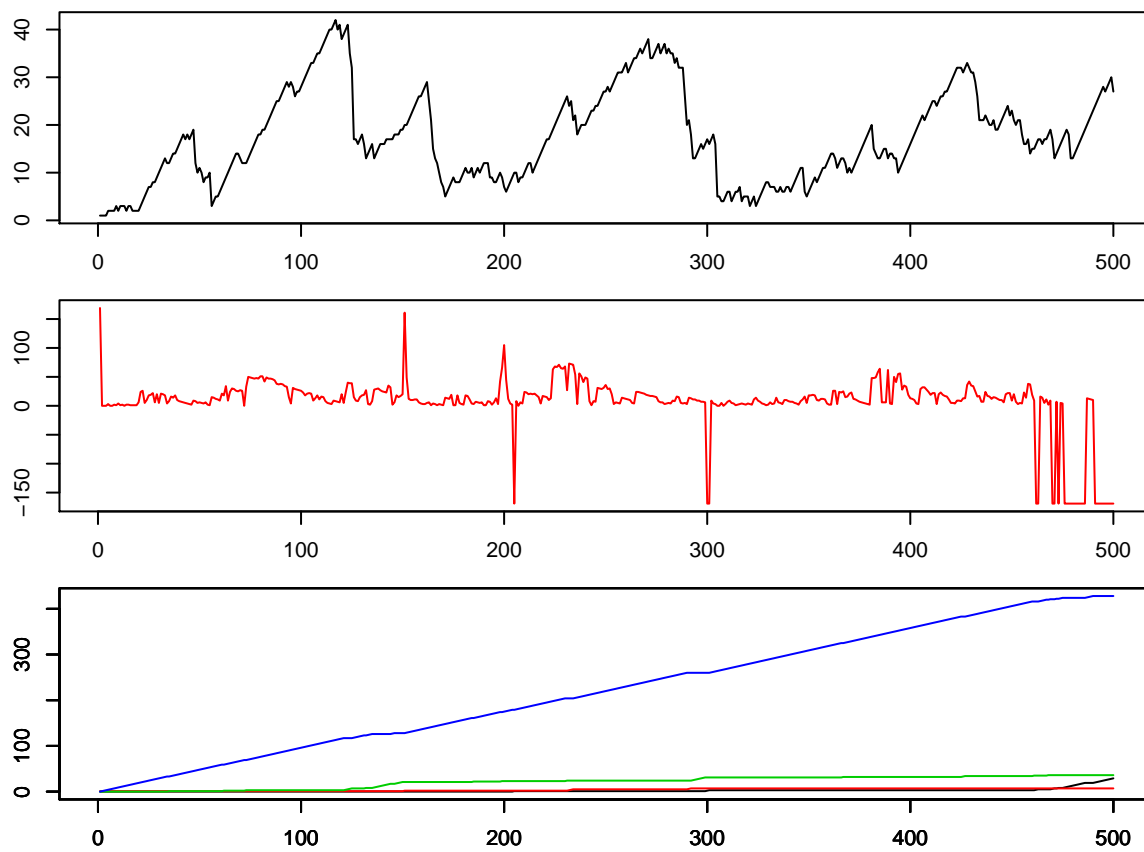
```
res <- multiSeg(file,4*2*log(n),1)
pruning(res)
```

```
res <- multiSeg(file,4*2*log(n),2)
pruning(res)
```

```
res <- multiSeg(file,4*2*log(n),3)
pruning(res)
```

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