

# Usage of a random walk generator

*Anthony Tedde*

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## Load a list of sampled random walks

The following produce a list of data.frame. Each one contains the same time period which goes from 0 to 100. 0 is the beginning of the period and the only one time where the value of the random walk is not random (the value is actually equal to 0). 100 could be called “time to maturity”, where the random walk get its last value.

```
rw <- RandomWalk::srwalkGenerator(n = 100)
```

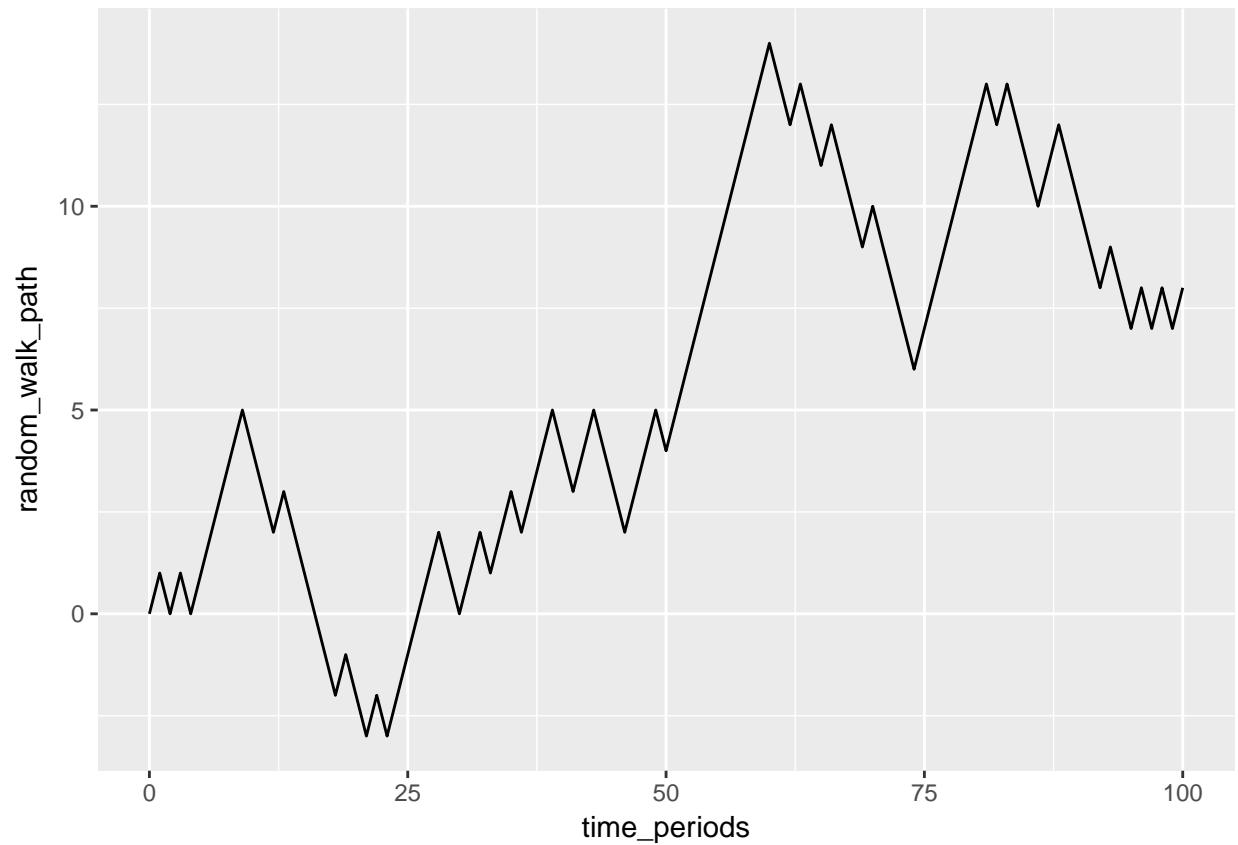
This is a summary of the first element of the list:

```
summary(rw[[1]])
```

```
##   time_periods random_walk_path
## Min.      : 0   Min.      :-3.000
## 1st Qu.: 25   1st Qu.: 2.000
## Median : 50   Median : 5.000
## Mean    : 50   Mean     : 5.663
## 3rd Qu.: 75   3rd Qu.:10.000
## Max.    :100   Max.     :14.000
```

## Graph the random walks

```
ggplot2::ggplot(rw[[1]], ggplot2::aes(x = time_periods, y = random_walk_path)) +  
  ggplot2::geom_line()
```



```
ggplot2::ggplot(dplyr::bind_rows(rw, .id = "uniqueID"),  
                ggplot2::aes(x = time_periods, y = random_walk_path, colour=uniqueID)) +  
  ggplot2::geom_line() +  
  ggplot2::theme(legend.position = 'none')
```

