# Circlize_Vignettes

```r
set.seed(429)
n = 1000
a = data.frame(factor = sample(letters[1:8], n, replace = TRUE),
               x = rnorm(n), y = runif(n))
library(circlize)
par(mar = c(1, 1, 1, 1), lwd = 0.1, cex = 0.7)
circos.par("track.height" = 0.1)
circos.initialize(factors = a$factor, x = a$x)
circos.trackPlotRegion(factors = a$factor, y = a$y,
                       panel.fun = function(x, y) {
                           circos.axis()
                       })

col = rep(c("#FF0000", "#00FF00"), 4)
circos.trackPoints(a$factor, a$x, a$y, col = col, pch = 16, cex = 0.5)
circos.text(-1, 0.5, "left", sector.index = "a", track.index = 1)
circos.text(1, 0.5, "right", sector.index = "a")
bgcol = rep(c("#EFEFEF", "#CCCCCC"), 4)
circos.trackHist(a$factor, a$x, bg.col = bgcol, col = NA)
circos.trackPlotRegion(factors = a$factor, x = a$x, y = a$y,
                       panel.fun = function(x, y) {
                           grey = c("#FFFFFF", "#CCCCCC", "#999999")
                           sector.index = get.cell.meta.data("sector.index")
                           xlim = get.cell.meta.data("xlim")
                           ylim = get.cell.meta.data("ylim")
                           circos.text(mean(xlim), mean(ylim), sector.index)
                           circos.points(x[1:10], y[1:10], col = "red", pch = 16, cex = 0.6)
                           circos.points(x[11:20], y[11:20], col = "blue", cex = 0.6)
                       })
circos.updatePlotRegion(sector.index = "d", track.index = 2)
circos.points(x = -2:2, y = rep(0, 5))
xlim = get.cell.meta.data("xlim")
ylim = get.cell.meta.data("ylim")
circos.text(mean(xlim), mean(ylim), "updated")
circos.trackPlotRegion(factors = a$factor, y = a$y)
circos.trackLines(a$factor[1:100], a$x[1:100], a$y[1:100], type = "h")
circos.link("a", 0, "b", 0, h = 0.4)
circos.link("c", c(-0.5, 0.5), "d", c(-0.5,0.5), col = "red",
            border = "blue", h = 0.2)
circos.link("e", 0, "g", c(-1,1), col = "green", lwd = 2, lty = 2)
```
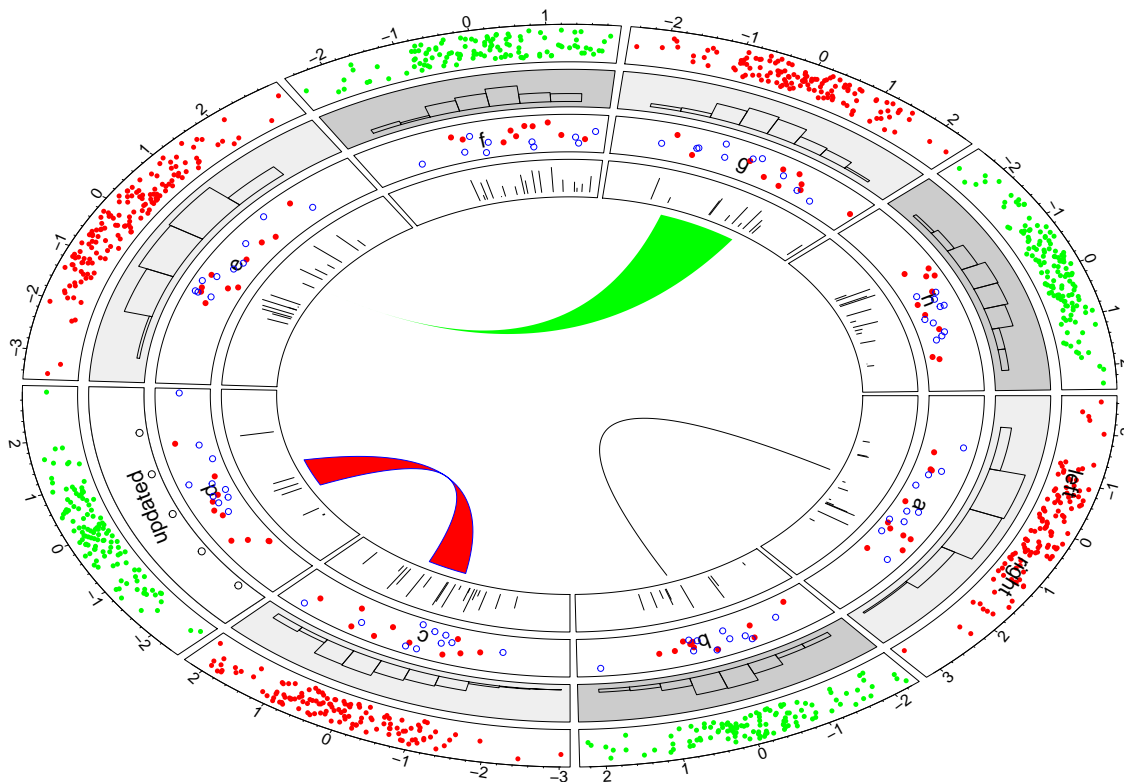
```
circos.info()
```

```
## All your sectors:
## [1] "a" "b" "c" "d" "e" "f" "g" "h"
##
## All your tracks:
## [1] 1 2 3 4
##
## Your current sector.index is h
## Your current track.index is 4
```

```
circos.info(sector.index = "a", track.index = 2)
```

```
## sector index: 'a'
## track index: 2
## xlim: [-2.625892, 3.107662]
## ylim: [0, 44]
## cell.xlim: [-2.747073, 3.228843]
## cell.ylim: [-8.8, 52.8]
## xplot (degree): [360, 310.6861]
## yplot (radius): [0.77, 0.87]
## track.margin: c(0.01, 0.01)
## cell.padding: c(0.02, 1, 0.02, 1)
##
## Your current sector.index is h
## Your current track.index is 4
```

```
circos.clear()
```