A8 Rasterdaten

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Manipulation von Rasterdaten

```
library(raster)

## Loading required package: sp
x <- raster()
x

## class       : RasterLayer
## dimensions  : 180, 360, 64800  (nrow, ncol, ncell)
## resolution  : 1, 1  (x, y)
## extent      : -180, 180, -90, 90  (xmin, xmax, ymin, ymax)
## coord. ref. : +proj=longlat +datum=WGS84 +ellps=WGS84 +towg
```

Andere Parameter wählen

```r
x1 <- raster(ncol=36, nrow=18, xmn=-1000, xmx=1000, ymn=-100,
x1
```

```
## class      : RasterLayer
## dimensions : 18, 36, 648  (nrow, ncol, ncell)
## resolution : 55.55556, 55.55556  (x, y)
## extent     : -1000, 1000, -100, 900  (xmin, xmax, ymin, ym
## coord. ref. : NA
```

Den Zellen Werte zuordnen

```
r <- raster(ncol=10, nrow=10)
ncell(r)
```

```
## [1] 100
```
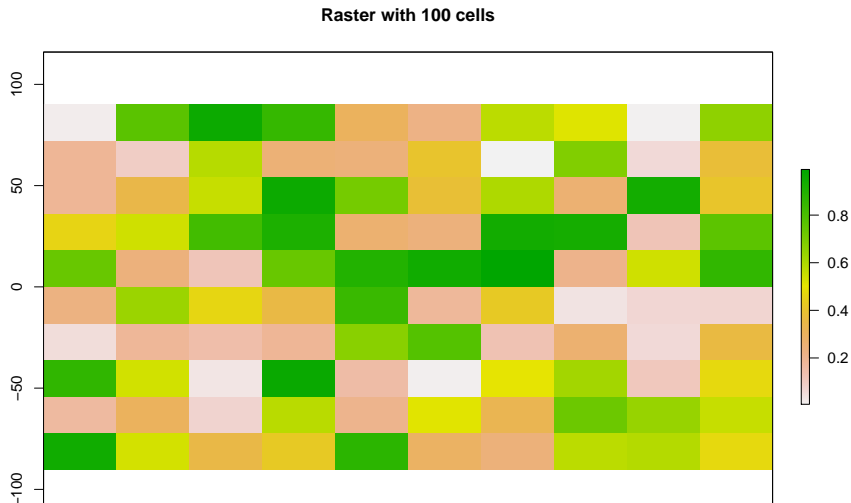
```
hasValues(r)
```

```
## [1] FALSE
```

```
values(r) <- runif(ncell(r))
hasValues(r)
```

```
## [1] TRUE
```

Das Ergebnis visualisieren

```
plot(r, main='Raster with 100 cells')
```


Raster with 100 cells

```
library(rnaturalearth)

## Warning: package 'rnaturalearth' was built under R version

usa <- ne_countries(country = "United States of America") # Un
class(usa)

## [1] "SpatialPolygonsDataFrame"
## attr(,"package")
## [1] "sp"
```
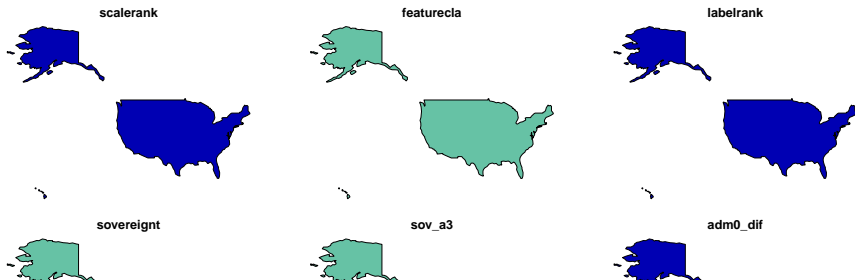
```
library(sf)
```

Linking to GEOS 3.6.1, GDAL 2.2.3, proj.4 4.9.3

```
usa_sf <- st_as_sf(usa)
plot(usa_sf)
```

Warning: plotting the first 9 out of 63 attributes; use max
plot all

Indikatoren vom Institut für ökologische Raumforschung (IÖR)

Links

- Neon - **Intro to Raster Data in R**