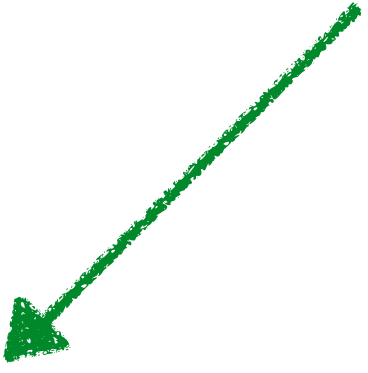
Setting `proj4string`

```r
proj <- "+proj=longlat +datum=WGS84 +no_defs +ellps=WGS84 +towgs84=0,0,0"
proj4string(pts) <- CRS(proj)
pts
```

```
## class       : SpatialPoints
## features    : 39
## extent      : -114.2935, -109.1263, 23.0757, 29.32541  (xmin, xmax, ymin, ymax)
## coord. ref. : +proj=longlat +datum=WGS84 +no_defs +ellps=WGS84 +towgs84=0,0,0
```

Ellipsoid: A simplified model of the shape of the earth.

- NAD27
- NAD83
- WGS84

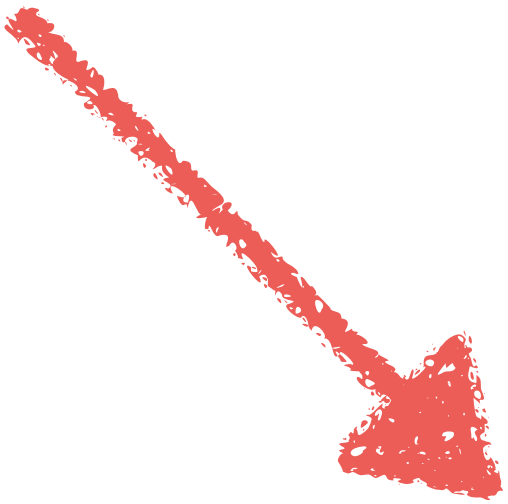


Datum: Defined coordinate system

- Long/Lat
- UTM

Projection: A mapping onto 2-space

- Equal Area
- Conical



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## coord. ref. : +proj=longlat +datum=WGS84 +no_defs +ellps=WGS84 +towgs84=0,0,0
```

Reprojecting SpatialPoints

```
pts.utm <- spTransform(pts, CRS("+proj=utm +zone=12 +datum=WGS84”))

summary( pts.utm )
## Object of class SpatialPoints
## Coordinates:
##                min       max
## Longitude  180128  686925.2
## Latitude  2552540 3248545.0
## Is projected: TRUE
## proj4string :
## [+proj=utm +zone=12 +datum=WGS84 +ellps=WGS84 +towgs84=0,0,0]
## Number of points: 39
```

Simply changing the proj4string will not reproject the data!