rmap Cheat Sheet

https://github.com/JGCRI/rmap

Structure

KEY INPUTS

myFile.csv file OR **R Data Frame**

subRegion	value
TX	32
AZ	54

```
data = data.frame(
    subRegion = c("TX","AZ"),
    value = c(32,54))
```

Optional Columns: param, scenario, year, class, units

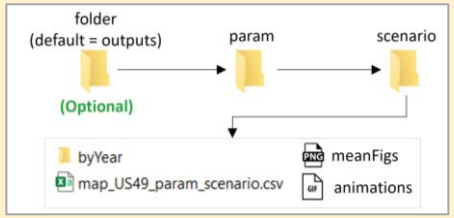
CODE

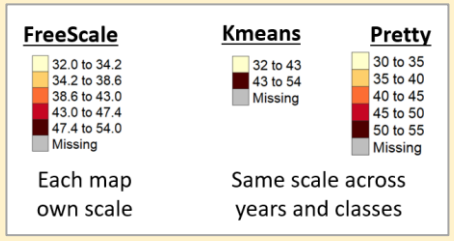
```
# To Install for the first time
# install.packages(devtools); library(devtools);
# devtools::install_github("JGCRI/rmap");

library(rmap);
map (data)  # OR
map("path/To/myFile.csv")
```

KEY OUTPUTS

- Maps saved in the working directory as follows:

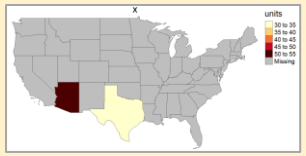




Pre-loaded Maps (Automatically find maps for data if available)

US49

```
data = data.frame(subRegion = c("TX", "AZ"),
value = c(32, 54), year=c(2010,2010))
map(data)
```



Countries and cropToBoundary

```
data = data.frame(subRegion = c("India","China"), value = c(32,54))
map(data, cropToBoundary=T)
```

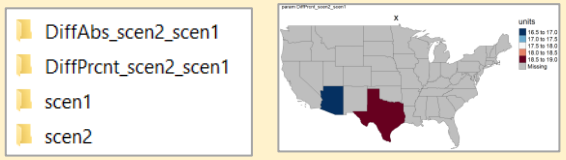
GCAM Basins

```
data = data.frame( subRegion = c("La_Plata","Amazon"),
value = c(32,54))
map(data , cropToBoundary=T)
```

Multiple Scenarios, Years and Classes

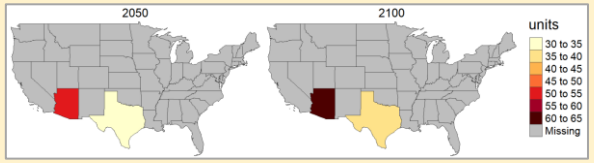
Multi-scenario Diff plots

```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
scenario = c("scen1","scen2","scen1","scen2"),
value = c(32, 38, 54, 63))
map(data, scenRef="scen1")
```



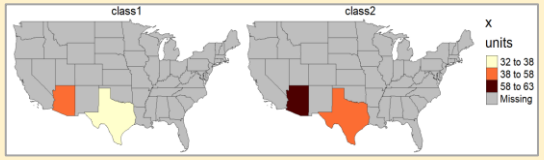
Multi-Year Animantion/Mean

```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
year = c("2050","2100","2050","2100"), value = c(32, 38, 54, 63))
map(data, folderName="multiyear")
```



Multi-Class

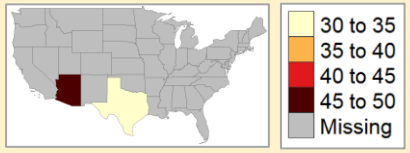
```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
class = c("class1","class2","class1","class2"),
value = c(32, 38, 54, 63))
map(data)
```



Customize Scales, Colors, Background

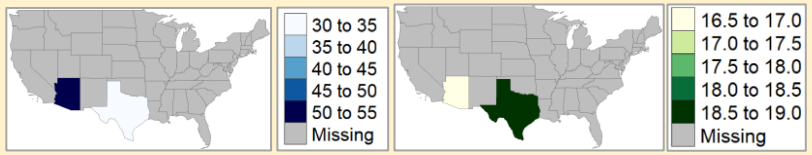
Set scale ranges

```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
scenario = c("scen1","scen2","scen1","scen2"),
value = c(32, 38, 54, 63))
map(data,
scaleRange = c(30,50), scaleRangeDiffPrcnt = c(10,30))
```



Change Palettes

```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
scenario = c("scen1","scen2","scen1","scen2"),
value = c(32, 38, 54, 63))
map(data, scenRef= "scen1",
classPalette = "pal_wet", classPaletteDiff = "pal_green")
```



Extended Boundary

```
data = data.frame(
subRegion = c("India","China"), value = c(32,54))
map(data,
background = T)
```