rmap Cheat Sheet

Github User Guide

Structure

KEY INPUTS FORMATS

my_polygon_file.csv OR **R Data Frame**

subRegion	value
TX	32
AZ	54

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

my_gridded_file.csv

lat	lon	value
65.2	-180	32
65.8	-180	54
50	-175	34
...	....	.....

NOTE: Works for regularly spaced gridded data

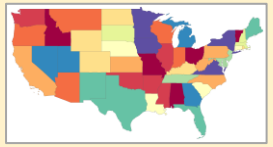
Optional Columns: param, scenario, year, class, units

INSTALLATION

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

RUN BASIC MAP WITHOUT DATA

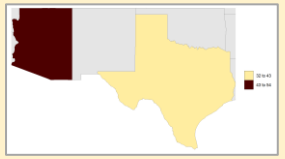
```
library(rmap)
# List of all available maps:
# https://jgcri.github.io/rmap/reference/index.html
map(mapUS49)
```



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

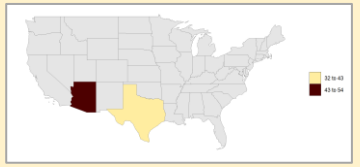
US49

```
data = data.frame(subRegion = c("TX", "AZ"),
value = c(32, 54))
map(data, underLayer = mapUS49)
```



Countries and cropToBoundary

```
data = data.frame(subRegion = c("TX", "AZ"), value = c(32, 54))
map(data, underLayer = mapUS49, crop = F)
```



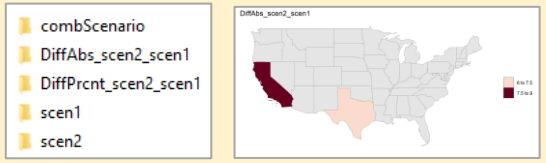
GCAM Basins

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

Multiple Scenarios, Years and Classes

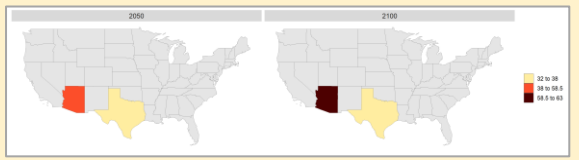
Multi-scenario Diff plots

```
data = data.frame(subRegion = c("TX","TX", "CA", "CA"),
scenario = c("scen1","scen2","scen1","scen2"),
value = c(32, 38, 54, 63))
map(data, scenRef="scen1", underLayer =  mapUS49, crop=F)
```



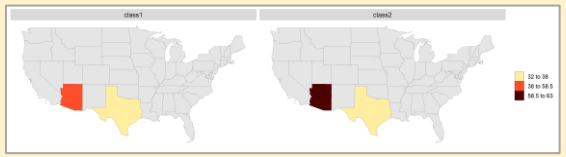
Multi-Year Animantion/Mean

```
data = data.frame(subRegion = c("TX","TX", "AZ", "AZ"),
year = c("2050","2100","2050","2100"), value = c(32, 38, 54, 63))
map(data, folder="multiyear", underLyer=mapUS49, crop=F)
```



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, underLayer=mapUS49, crop=F)
```



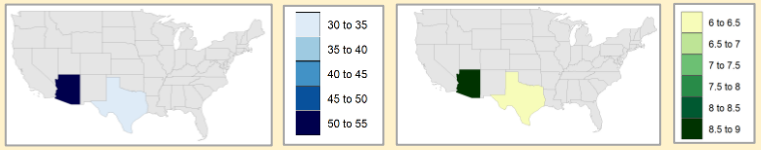
Customize Scales, Legend Type, Colors, Background

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, underLayer =  mapUS49, crop=F , scenRef="scen1",
scaleRange = c(30,50), scaleRangeDiffPrcnt = c(10,30))
```

Change Palettes & Legend Type

```
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", underLayer =  mapUS49, crop=F,
palette = "pal_wet", paletteDiff = "pal_green " , legendType="pretty")
```



Background

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