

rmap Cheat Sheet

[Github](#)

[User Guide](#)

Structure

KEY INPUTS FORMATS

my_polygon_file.csv

OR

R Data Frame

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

subRegion	value
TX	32
AZ	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

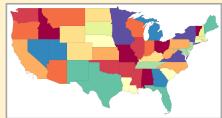
Optional Columns: param, scenario, year, class, units

INSTALLATION

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

RUN BASIC MAP WITHOUT DATA

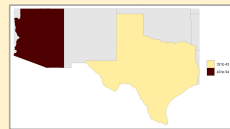
```
library(rmap)
# List of all available maps:
# https://jgcri.github.io/rmap/reference/index.html
map(mapUS49)
```



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

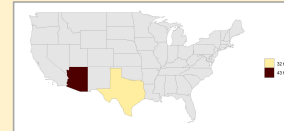
US49

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



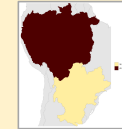
Crop

```
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

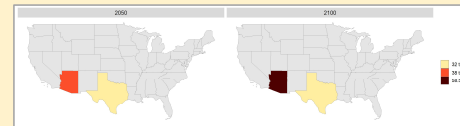
Multi-scenario Diff plots

```
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)
```



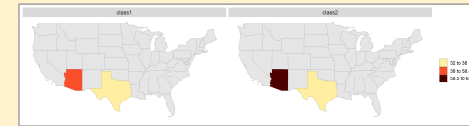
Multi-Year Animation/Mean

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



Multi-Class

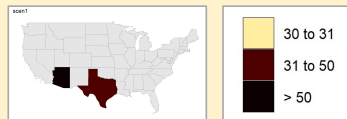
```
data = data.frame(subRegion = c("TX", "TX", "AZ", "AZ"),
  class = c("class1", "class2", "class1", "class2"),
  value = c(32, 38, 54, 63))
map(data, underLayer=mapUS49, crop=F)
```



Customize Scales, Legend Type, Colors, Background

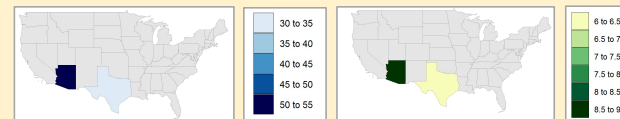
Set scale ranges

```
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), scaleRangeDiffPrnt = 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)
```

