rmap Cheat Sheet

Webpage: https://jgcri.github.io/rmap/
Github: https://github.com/JGCRI/rmap
Cheat sheet

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))
```
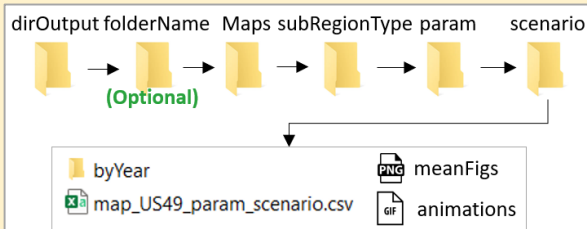
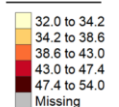**Optional Columns:** param, scenario, year, class, units

CODE

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

KEY OUTPUTS

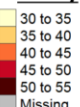- Maps saved in the working directory as follows:

dirOutput folderName Maps subRegionType param scenario
(Optional)

- byYear
- meanFigs (PNG)
- map_US49_param_scenario.csv
- animations (GIF)

FreeScale
32.0 to 34.2
34.2 to 38.6
38.6 to 43.0
43.0 to 47.4
47.4 to 54.0
Missing

Each map
own scale

Kmeans
32 to 43
43 to 54
Missing

Same scale across
years and classes

Pretty
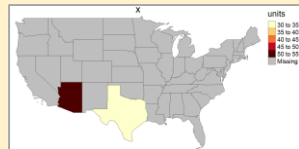30 to 35
35 to 40
40 to 45
45 to 50
50 to 55
Missing

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)
```
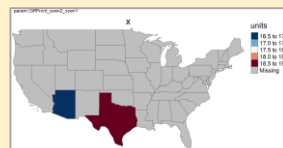
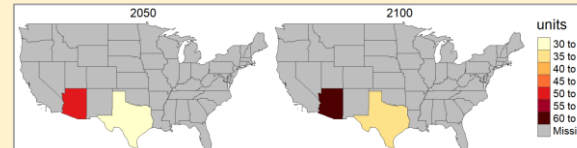## Multiple Scenarios, Years and Classes

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")
```

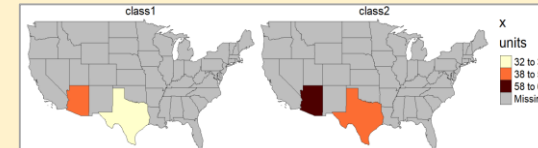- DiffAbs_scen2_scen1
- DiffPrcnt_scen2_scen1
- scen1
- scen2

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)
```
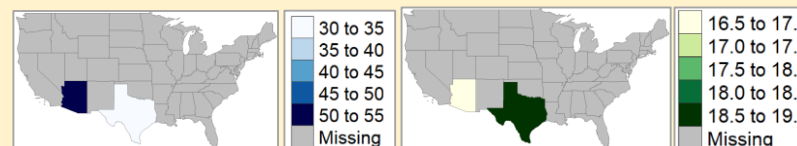
Customize Scales, Colors, Background

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)
```