

# Package ‘WorldMapR’

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**Type** Package

**Title** Worldwide or Coordinates-Based Heat Maps

**Version** 0.1.1

**Description** Easily plot heat maps of the world, based on continuous or categorical data. Country labels can also be added to the map.

**License** GPL-3

**URL** <https://github.com/Luigi-Annic/WorldMapR/>

**BugReports** <https://github.com/Luigi-Annic/WorldMapR/issues>

**Encoding** UTF-8

**Depends** R (>= 4.3.0)

**Imports** ggplot2 (>= 3.4.4), dplyr (>= 1.1.4), rnatualearth (>= 1.0.1), sf (>= 1.0-14), countrycode (>= 1.5.0), utils (>= 4.3.0), ggfx (>= 1.0.1)

**LazyData** true

**RoxygenNote** 7.2.3

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0), rnatualearthdata (>= 1.0.0)

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**NeedsCompilation** no

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**Repository** CRAN

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geometries_data	<i>geometries_data</i>
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### Description

This function generates a data frame with information about geometries and centroid coordinates of countries. You can choose whether to keep all the countries or only a subset.

### Usage

```
geometries_data(exclude.iso.na = TRUE, countries.list = NULL)
```

### Arguments

`exclude.iso.na` if TRUE (default), countries that do not have a ISO 3166 code are excluded from the table.

`countries.list` List of the ISO 3166-1 alpha-2 codes of countries that are to be included. By default it is set to NULL and all countries are included.

### Value

an object of class `data.frame` and `sf`.

### Examples

```
geometries_data(countries.list = c("IT", "FR", "US"))
```

---

`testdata1`*Simulated data set 1*

---

**Description**

Data from a random simulation with continuous data.

**Usage**

```
data(testdata1)
```

**Format**

An object of class `data.frame`

**Examples**

```
data(testdata1)
head(testdata1)
```

---

`testdata1b`*Simulated data set 1b*

---

**Description**

Data from a random simulation with continuous and categorical data.

**Usage**

```
data(testdata1b)
```

**Format**

An object of class `data.frame`

**Examples**

```
data(testdata1b)
head(testdata1b)
```

testdata1c

*Simulated data set 1c*

---

**Description**

Data from a random simulation with continuous and categorical data. This data set contains information about 237 countries (countries without unique ISO 3166 code are excluded).

**Usage**

```
data(testdata1c)
```

**Format**

An object of class `data.frame`

**Examples**

```
data(testdata1c)
head(testdata1c)
```

---

worldplot

*worldplot*

---

**Description**

Plot a world heat map based on a continuous variable.

**Usage**

```
worldplot(
  data,
  ColName,
  CountryName,
  CountryNameType = "isoa2",
  rangeVal,
  longitude = c(-180, 180),
  latitude = c(-90, 90),
  title = "",
  legendTitle = as.character(ColName),
  annote = FALSE,
  div = 1,
  palette_option = "D",
  save = FALSE,
  filename = "worldplot.jpg",
  path = tempdir(),
```

```

width = 20,
height = 10,
units = "cm",
scale = 1
)

```

### Arguments

<code>data</code>	Data set containing the list of nations and the variable that we want to plot.
<code>ColName</code>	Character variable with the name of the variable of interest.
<code>CountryName</code>	Character variable with the name of the country names column.
<code>CountryNameType</code>	Character variable with the coding for CountryName. One of <code>isoa2</code> (default), <code>isoa3</code> , or <code>name</code> .
<code>rangeVal</code>	Limit values that are to be defined for the map.
<code>longitude</code>	Longitude limits. Default is <code>c(-180, 180)</code> (whole world).
<code>latitude</code>	Latitude limits. Default is <code>c(-90, 90)</code> (whole world).
<code>title</code>	Title of the plot. Default is no title.
<code>legendTitle</code>	Title of the legend. Default is the name of the filling variable.
<code>annotate</code>	Do you want to plot country labels (ISO 3166-1 alpha-2 code) on the map? Default is set to <code>FALSE</code> .
<code>div</code>	Parameter for modifying the elements dimensions in the map. Usually, it does not need to be modified. Default value is 1.
<code>palette_option</code>	Character string indicating the palette to be used. Available options range between "A" and "H".
<code>save</code>	Save the plot in a jpg file?
<code>filename</code>	Only if <code>save</code> is set to <code>TRUE</code> . Name of the file.
<code>path</code>	Only if <code>save</code> is set to <code>TRUE</code> . Path of the directory where the file is to be saved.
<code>width</code>	Only if <code>save</code> is set to <code>TRUE</code> . Width of the file.
<code>height</code>	Only if <code>save</code> is set to <code>TRUE</code> . Height of the file.
<code>units</code>	Only if <code>save</code> is set to <code>TRUE</code> . Units for width and height. Can be 'cm', 'mm', 'in', or 'px'.
<code>scale</code>	Only if <code>save</code> is set to <code>TRUE</code> . Scaling factor for adjusting image dimensions.

### Value

a map

### Examples

```

data(testdata1b)
worldplot(data = testdata1b,
           div = 1,
           ColName = "VNum",

```

```
CountryName = "Cshort",
CountryNameType = "isoa2",
rangeVal = c(0,50),
annotate = FALSE)
```

---

worldplotCat

*worldplotCat*


---

## Description

Plot a world heat map based on a categorical variable.

## Usage

```
worldplotCat(
  data,
  ColName,
  CountryName,
  CountryNameType,
  longitude = c(-180, 180),
  latitude = c(-90, 90),
  title = "",
  legendTitle = as.character(ColName),
  Categories = levels(factor(map_df$MapFiller)),
  na.as.category = TRUE,
  annotate = FALSE,
  div = 1,
  palette_option = "D",
  save = FALSE,
  filename = "worldplot.jpg",
  path = tempdir(),
  width = 20,
  height = 10,
  units = "cm",
  scale = 1
)
```

## Arguments

data	Data set containing the list of nations and the variable that we want to plot.
ColName	Character variable with the name of the variable of interest.
CountryName	Character variable with the name of the country names column.
CountryNameType	Character variable with the coding for CountryName. One of isoa2 (default), isoa3, or name.
longitude	Longitude limits. Default is c(-180, 180) (whole world).

latitude	Latitude limits. Default is <code>c(-90, 90)</code> (whole world).
title	Title of the plot. Default is no title.
legendTitle	Title of the legend. Default is the name of the filling variable.
Categories	categories labels to be plotted in the legend.
na.as.category	Treat NA as a separate category? If 'TRUE, NA will also appear in the legend as one of the categories.
annotate	Do you want to plot country labels (ISO 3166-1 alpha-2 code) on the map? Default is set to FALSE.
div	Parameter for modifying the elements dimensions in the map. Usually, it does not need to be modified. Default value is 1.
palette_option	Character string indicating the palette to be used. Available options range between "A" and "H". You can also enter a string with a colour for each category
save	Save the plot in a jpg file?
filename	Only if is save set to TRUE. Name of the file.
path	Only if save is set to TRUE. Path of the directory where the file is to be saved.
width	Only if save is set to TRUE. Width of the file.
height	Only if save is set to TRUE. Height of the file.
units	Only if save is set to TRUE. Units for width and height. Can be 'cm', 'mm', 'in', or 'px'.
scale	Only if save is set to TRUE. Scaling factor for adjusting image dimensions.

## Value

a map

## Examples

```
data(testdata1b)
worldplotCat(data = testdata1b,
              div = 1,
              ColName = "VCat",
              CountryName = "Cshort",
              CountryNameType = "isoa2",
              annotate = FALSE)
```

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