

# Package ‘WorldMapR’

November 13, 2024

**Type** Package

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

**Version** 0.1.3

**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), rnaturalearth (>= 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), rnaturalearthdata (>= 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),
  crs = 4326,
  title = "",
  legendTitle = as.character(ColName),
  annote = FALSE,
  div = 1,
  palette_option = "D"
)
```

**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 <code>CountryName</code> . One of <code>isoa2</code> (default, standing for ISO 3166-1 alpha-2 code), <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 with crs as EPSG::4326).
<code>latitude</code>	Latitude limits. Default is <code>c(-90, 90)</code> (whole world with crs as EPSG::4326).
<code>crs</code>	Coordinate reference system (EPSG). By default the value is 4326, which corresponds to EPSG::4326 (WGS84)
<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 FALSE.
<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".

**Value**

a map

**Examples**

```
data(testdata1b)
worldplot(data = testdata1b,
          div = 1,
          ColName = "VNum",
          CountryName = "Cshort",
          CountryNameType = "isoa2",
          rangeVal = c(0,50),
          annotate = FALSE)
```

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worldplotCat	<i>worldplotCat</i>
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## 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),
  crs = 4326,
  title = "",
  legendTitle = as.character(ColName),
  Categories = levels(factor(map_df$MapFiller)),
  na.as.category = TRUE,
  annotate = FALSE,
  div = 1,
  palette_option = "D"
)
```

## 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, standing for ISO 3166-1 alpha-2 code), <code>isoa3</code> , or <code>name</code> .
<code>longitude</code>	Longitude limits. Default is <code>c(-180, 180)</code> (whole world with crs as EPSG::4326).
<code>latitude</code>	Latitude limits. Default is <code>c(-90, 90)</code> (whole world with crs as EPSG::4326).
<code>crs</code>	Coordinate reference system (EPSG). By default the value is 4326, which corresponds to EPSG::4326 (WGS84)
<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>Categories</code>	categories labels to be plotted in the legend.
<code>na.as.category</code>	Treat NA as a separate category? If 'TRUE, NA will also appear in the legend as one of the categories.

<code>annotate</code>	Do you want to plot country labels (ISO 3166-1 alpha-2 code) on the map? Default is set to FALSE.
<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". You can also enter a string with a colour for each category

**Value**

a map

**Examples**

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

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