# Package 'rworldxtra'

July 2, 2014

**Type** Package

**Title** Country boundaries at high resolution.

**Version** 1.01

**Date** 2012-10-3

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**Description** High resolution vector country boundaries derived from Natural Earth data, can be plotted in rworldmap.

**License** GPL (>= 2)

**Depends** R (>= 2.10.0), sp

**Suggests** rworldmap

**Repository** CRAN

**Date/Publication** 2012-10-03 17:22:08

**NeedsCompilation** no

## R topics documented:

## rworldxtra-package *For mapping global data.*

### Description

Enables mapping of country level and gridded user datasets by facilitating joining to world maps and visualisation options.

### Details

| | |
|---|---|
| Package: | rworldxtra |
| Type: | Package |
| Version: | 1.01 |
| Date: | 2012-10-1 |
| License: | GPL (>= 2) |

Version 1.01 newly uses updated Natural Earth Data for country boundaries.

### Author(s)

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### References

Derived from : http://www.naturalearthdata.com/downloads/10m-cultural-vectors/

### Examples

```
data(countriesHigh)
```

## countriesHigh *a high resolution world map, a vector map of 253 country boundaries*

### Description

A 'SpatialPolygonsDataFrame' [package "sp"] object containing country boundaries derived from Natural Earth data. Polygons are attributed with country codes.

## Usage

```
data(countriesHigh)
```

## Format

The format is: Formal class 'SpatialPolygonsDataFrame' [package "sp"] with 5 slots ..@ data :'data.frame': 253 obs. of 32 variables: .. ..$ ne_10m_adm: Factor w/ 253 levels "ABW","AFG","AGO",..: 1 2 3 4 5 6 7 8 9 10 ... .. ..$ ScaleRank : atomic [1:253] 3 1 1 1 1 1 3 1 1 1 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ LabelRank : atomic [1:253] 6 2 2 8 5 7 5 2 2 2 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ FeatureCla: Factor w/ 1 level "Adm-0 country": 1 1 1 1 1 1 1 1 1 1 ... .. ..$ OID_ : atomic [1:253] 18 78 82 48 79 16 81 255 84 85 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ SOVEREIGNT: Factor w/ 204 levels "Afghanistan",..: 126 1 5 192 2 60 4 191 8 9 ... .. ..$ SOV_A3 : Factor w/ 205 levels "AFG","AGO","ALB",..: 135 1 2 65 3 60 4 5 6 7 ... .. ..$ ADM0_DIF : atomic [1:253] 1 0 0 1 0 1 0 0 0 0 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ LEVEL : atomic [1:253] 2 2 2 2 2 2 2 2 2 2 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ TYPE : Factor w/ 7 levels "Country","County",..: 1 7 7 3 7 1 7 7 7 7 ... .. ..$ ADMIN : Factor w/ 253 levels "Afghanistan",..: 14 1 8 9 4 3 7 235 12 13 ... .. ..$ ADM0_A3 : Factor w/ 253 levels "ABW","AFG","AGO",..: 1 2 3 4 5 6 7 8 9 10 ... .. ..$ GEOU_DIF : atomic [1:253] 0 0 0 0 0 0 0 0 0 0 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ GEOUNIT : Factor w/ 253 levels "Afghanistan",..: 14 1 8 9 4 3 7 236 12 13 ... .. ..$ GU_A3 : Factor w/ 253 levels "ABW","AFG","AGO",..: 1 2 3 4 5 6 7 8 9 10 ... .. ..$ SU_DIF : atomic [1:253] 0 0 0 0 0 0 0 0 0 0 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ SUBUNIT : Factor w/ 253 levels "Afghanistan",..: 14 1 8 9 4 3 7 236 12 13 ... .. ..$ SU_A3 : Factor w/ 253 levels "ABW","AFG","AGO",..: 1 2 3 4 5 6 7 8 9 10 ... .. ..$ NAME : Factor w/ 250 levels "Afghanistan",..: 14 1 8 9 4 3 7 236 12 13 ... .. ..$ ABBREV : Factor w/ 247 levels "A.C.Is.","Afg.",..: 14 2 9 9 5 4 8 228 12 13 ... .. ..$ POSTAL : Factor w/ 240 levels "A","AE","AF",..: 15 3 9 5 7 5 8 2 11 12 ... .. ..$ NAME_FORMA: Factor w/ 196 levels "Arab Republic of Egypt",..: NA 45 76 NA 75 21 72 NA 2 77 ... .. ..$ TERR_ : Factor w/ 15 levels "Assoc. with N.Z.",..: 13 NA NA 14 NA 8 NA NA NA NA ... .. ..$ NAME_SORT : Factor w/ 253 levels "Afghanistan",..: 14 1 8 9 4 3 7 237 12 13 ... .. ..$ MAP_COLOR : atomic [1:253] 9 7 1 3 6 6 8 3 13 10 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ POP_EST : atomic [1:253] 103065 28400000 12799293 14436 3639453 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ GDP_MD_EST: atomic [1:253] 2258 22270 110300 109 21810 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ FIPS_10_ : atomic [1:253] 0 0 0 0 0 -99 0 0 0 0 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ ISO_A2 : Factor w/ 237 levels "-99","AD","AE",..: 15 4 9 6 7 1 2 3 11 8 ... .. ..$ ISO_A3 : Factor w/ 251 levels "ABW","AFG","AGO",..: 1 2 3 4 6 5 7 8 9 10 ... .. ..$ ISO_N3 : atomic [1:253] 533 4 24 660 8 248 20 784 32 51 ... .. .. ..- attr(*, "levels")= chr(0) .. ..$ ISO3 : Factor w/ 251 levels "ABW","AFG","AGO",..: 1 2 3 4 6 5 7 8 9 10 ... ..@ polygons :List of 253 .. ..$ :Formal class 'Polygons' [package "sp"] with 5 slots .. .. .. ..@ Polygons :List of 1 .. .. .. .. ..$ :Formal class 'Polygon' [package "sp"] with 5 slots .. .. .. .. .. .. ..@ labpt : num [1:2] -70 12.5 .. .. .. .. .. .. ..@ area : num 0.0141 .. .. .. .. .. .. ..@ hole : logi FALSE .. .. .. .. .. .. ..@ ringDir: int 1 .. .. .. .. .. .. ..@ coords : num [1:26, 1:2] -69.9 -69.9 -69.9 -69.9 -69.9 ... .. .. .. ..@ plotOrder: int 1 .. .. .. ..@ labpt : num [1:2] -70 12.5 .. .. .. ..@ ID : chr "Aruba" .. .. .. ..@ area : num 0.0141

.. .. [list output truncated] ..@ plotOrder : int [1:253] 12 191 39 236 42 33 16 93 120 105 ... ..@ bbox : num [1:2, 1:2] -180 -90 180 83.6 .. ..- attr(*, "dimnames")=List of 2 .. .. ..$ : chr [1:2] "x" "y" .. .. ..$ : chr [1:2] "min" "max" ..@ proj4string:Formal class 'CRS' [package "sp"] with 1 slots .. .. ..@ projargs: chr NA

## Details

Derived fron version 1.4.0 of Natural Earth data 1:10 m data.

The different country boundaries in rworldmap are processed from Natural Earth Data as follows : All : ~ rename any non-ASCII country names that cause R trouble ~ rename Curacao which is particularly troublesome ! ~ check polygon geometries using checkPolygonsHoles ~ set projections, e.g. proj4string(countriesCoarse) <- CRS("+proj=longlat +ellps=WGS84 +datum=WGS84 +no_defs") ~ set polygon IDs to country names (from ADMIN field) ~ copy ISO_A3 to ISO3 ~ replace missing ISO3 codes (6 in this version) with ADM0_A3 ~ check for duplicate ISO3 codes (2 in this version) ~ set ISO3 for Gaza to Gaza and 'Ashmore and Cartier Islands' to Ashm ~ replace POP_EST of -99 with NA ~ join on countryRegions data

countriesCoarseLessIslands : ne_110 countriesCoarse : ne_110 plus extra countries from ne_50 plus Tuvalu from ne_10 countriesLow : ne_50 plus Tuvalu from ne_10 countriesHigh : ne_10

## Source

http://www.naturalearthdata.com/downloads/10m-cultural-vectors/

## Examples

```
data(countriesHigh)
```

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