Package ‘nswgeo’

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Title Geospatial Data and Maps for New South Wales, Australia

Version 0.3.3

Description Geospatial data for creating maps of New South Wales (NSW), Australia, and some helpers to work with common problems like normalising postcodes. Registers its data with ‘cartographer’.

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Depends R (>= 4.2),

Imports cartographer (>= 0.2), sf (>= 1.0)

Suggests dplyr (>= 1.0.0), ggplot2, nngeo, readr, stringr

URL https://github.com/cidm-ph/nswgeo,
    https://cidm-ph.github.io/nswgeo/


NeedsCompilation no

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Description

This package contains geospatial data for the NSW border and several types of features. It also contains some map plotting helpers to help you get from a data frame to a plot for common scenarios.

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See Also

Useful links:

- https://cidm-ph.github.io/nswgeo/

Description

Excludes external territories.

Usage

australia

states
Format

An object of class sfc_MULTIPOLYGON (inherits from sfc) of length 1.
An object of class sf (inherits from tbl_df, tbl, data.frame) with 8 rows and 9 columns.

Details

The geometries have been simplified with a tolerance of 5 km to reduce the level of detail.

Functions

• australia: External boundaries of Australia as a multipolygon.
• states: State and internal territory boundaries of Australia.

Source


The original dataset is published under the Creative Commons Attribution 4.0 International licence, © Commonwealth of Australia 2021.

Examples

library(ggplot2)
ggplot(states) + geom_sf(aes(fill = STE_NAME21))

covid_cases_nsw

Small sample of COVID-19 cases in NSW for testing and demonstration.

Description

This subset covers a random selection of entries from 3 LGAs, and ignores the case count field.

Usage

covid_cases_nsw

Format

A data frame with 100 rows and the following columns:

• postcode  The postal code
• lhd  The name of the Local Health District
• lga  The name of the Local Government Area
• type  A synthetic disease type/lineage/etc., either A or B
• year  Year of the case notification
Source


The original dataset is published under the Creative Commons Attribution 4.0 licence, © State of New South Wales 2020-2022.

Examples

```r
head(covid_cases_nsw)
```

<table>
<thead>
<tr>
<th>crs_gda2020</th>
<th>Coordinate reference system for Australia</th>
</tr>
</thead>
</table>

Description

GDA2020 is the official CRS used by the Commonwealth and NSW. Geospatial data in this package uses GDA2020.

Usage

```r
crs_gda2020()
```

Value

A simple features CRS

<table>
<thead>
<tr>
<th>1hd</th>
<th>Local Health Districts of NSW</th>
</tr>
</thead>
</table>

Description

The geometries have been simplified with a tolerance of 1 km to reduce the level of detail.

Usage

```r
1hd
```

Format

An object of class sf (inherits from tbl_df, tbl, data.frame) with 15 rows and 11 columns.
normalise_postcodes

Source


The original dataset is published under the Creative Commons Attribution 4.0 International licence, © State of New South Wales NSW Ministry of Health 2023. For current information go to https://www.health.nsw.gov.au.

Examples

library(ggplot2)
ggplot(lhd) + geom_sf(aes(fill = lhd_name), show.legend = FALSE)

normalise_postcodes Normalise postal codes

Description

Some special postcodes are used in addresses, such as codes for post office boxes. This helper converts those to the postcode for the closest normal suburb if there is a reasonable clear match. If there is no good match, the postcodes are left unchanged.

Usage

normalise_postcodes(codes)

Arguments

codes Character vector of postcodes (or coercible to one).

Details

Note that this goes a little further than the aliases that are registered with cartographer (which only account for postcodes with no geospatial data in the ABS dataset).

Value

Character vector of the same size as the input, but with the normalised postcodes.

Examples

normalise_postcodes(c(1685, 2000, 1010, 2129, 2145))
normalise_state_names  Normalise state names from abbreviations

Description
Expand abbreviations like "NSW" to "New South Wales", and normalise to title capitalisation. Entries that don’t match any state name or abbreviation are left untouched.

Usage
normalise_state_names(names)

Arguments
names  Character vector of state names.

Value
Vector of the same size as the input, but with the normalised state names.

Examples
normalise_state_names(c("nsw", "VIC", "overseas", "Queensland"))

nsw  Geospatial data of the New South Wales administrative boundaries.

Description
Excludes the borders with the ACT and Jervis Bay Territory, and Lord Howe Island.

Usage
nsw
lga_nsw
poa_nsw

Format
An object of class sfc.MULTIPOLYGON (inherits from sfc) of length 1.
An object of class sf (inherits from tbl_df, tbl, data.frame) with 131 rows and 9 columns.
An object of class sf (inherits from tbl_df, tbl, data.frame) with 715 rows and 7 columns.
Details

The geometries have been simplified with a tolerance of 1 km to reduce the level of detail.

Functions

- nsw: External boundaries of New South Wales as a multipolygon.
- lga_nsw: Local Government Area boundaries of New South Wales.
- poa_nsw: Postal area boundaries of New South Wales.

Source


The original dataset is published under the Creative Commons Attribution 4.0 International licence, © Commonwealth of Australia 2021.

Examples

```r
library(ggplot2)
genplot(lga_nsw) + geom_sf(aes(fill = LGA_NAME_2021), show.legend = FALSE)

library(sf)
sf_use_s2(FALSE)
# cut out part of the postcode dataset (it's quite large)
bbox <- st_bbox(c(xmin = 142, xmax = 147, ymin = -33, ymax = -30)) |> st_as_sfc(crs = crs_gda2020())
st_crop(poa_nsw, bbox) |> ggplot() + geom_sf() + geom_sf_text(aes(label = POA_CODE_2021), size = 4)
```

Description

Derived from several government sources with some community curation. This version additionally attempts to canonicalise non-physical postcodes to assist with mapping.

Usage

postcodes
### Format

A data frame with 7 columns:

- **postcode** A postal code
- **locality** A suburb or locality
- **state** NSW
- **SA2_NAME_2016** Statistical Area 2 name to assist with disambiguating localities with identical names
- **special** Flag indicating this is a post office box, mail distribution centre or other special postal code
- **old** Flag indicating that this code appears to have been superseded
- **canonical** The closest canonical postal code, e.g. mapping post office boxes to the main suburb’s postal code

### Source


The original dataset is released to the public domain.

### Examples

```r
set.seed(12345)
postcodes[sort(sample.int(nrow(postcodes), 5)),]
```

### Description

A dataset containing the names of suburbs in NSW and their postcodes. These fields are extracted as-is from the source dataset published by DCS Spatial Services, NSW Government.

### Usage

```r
suburbs
```

### Format

A data frame with 2 columns:

- **suburbname** The name of the suburb, in upper case
- **postcode** The main postcode of the suburb, as a character
Source


The original dataset is published under the Creative Commons Attribution 4.0 International licence, © State of New South Wales (Spatial Services, a business unit of the Department of Customer Service NSW).
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