

Package ‘canadianmaps’

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Title Canadian Mapping Made Easy

Version 1.0.0

Description Several functions to make mapping provincial, regional, and forward sortation area data easy using 'ggplot2'.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.2

Imports ggplot2, sp, rgdal, ggrepel, RColorBrewer, dplyr

Depends R (>= 2.10)

Suggests testthat (>= 3.0.0)

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coord_transform	<i>Transforming map coordinates</i>
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Description

Converts your longitude and latitude coordinates to match the maps to properly overlay.

Usage

```
coord_transform(data, long, lat)
```

Arguments

data	a data set with long and lat coordinates
long	the longitude variable name
lat	the latitude variable name

Value

Your coordinates transformed.

crs_coord	<i>Map coordinate system</i>
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Description

Used to visualize simple feature (sf) objects. Required to plot geometry objects.

Usage

```
crs_coord()
```

Value

a coordinate system for mapping

FSA	<i>FSA data set with geometry</i>
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Description

A data set containing the Canadian FSA geometry shapes

Usage

FSA

Format

A data frame with 1614 rows and 6 variables:

CFSAUID ID column for each FSA code

PRNAME Province name

PRUID ID column for each province

PT province or territory

rmapshaperid id for geometry

geometry map geometry ...

Source

<https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-eng.cfm>

geom_fsa	<i>Mapping FSA data</i>
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Description

Maps FSA data using Statistics Canada FSA shape file.

Usage

```
geom_fsa(data = FSA, fill = "PRNAME", colour = "white", size = 0.2)
```

Arguments

data	a data set with geometry variable
fill	the color fill variable
colour	outline color, default is NA
size	size of outline

Value

FSA map.

geom_prov	<i>Mapping provincial data</i>
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Description

Maps provincial data using Statistics Canada province shape file.

Usage

```
geom_prov(data = PROV, fill = "PT", colour = NA, size = 0.1)
```

Arguments

data	a data set with geometry variable
fill	the color fill variable
colour	outline color, default is NA
size	size of outline

Value

Provincial map.

geom_reg	<i>Mapping regional data</i>
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Description

Maps regional data using Statistics Canada province shape file.

Usage

```
geom_reg(data = REG, fill = "region", colour = NA, size = 0.1)
```

Arguments

data	a data set with geometry variable
fill	the color fill variable
colour	outline color, default is NA
size	size of outline

Value

Regional map.

label_prov	<i>Province labels</i>
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Description

Adds text labels in the center of each province with light gray bubble.

Usage

```
label_prov(  
  data = PROV,  
  label = "PT",  
  colour = "grey20",  
  size = 3,  
  outline = NA,  
  alpha = 0.7  
)
```

Arguments

data	a data set with geometry variable
label	the label variable
colour	label color
size	label size
outline	outline color
alpha	transparency

Value

Provincial map labels

label_reg	<i>Regional labels</i>
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Description

Adds text labels in the center of each region with light gray bubble.

Usage

```
label_reg(data = REG, label = "region", colour = "grey20", size = 4)
```

Arguments

data	a data set with geometry variable
label	the label variable
colour	label color
size	label size

Value

Regional map labels.

PROV

Provincial data set with geometry

Description

A data set containing the Canadian province geometry shapes

Usage

PROV

Format

A data frame with 13 rows and 12 variables:

PREABBR Province abbreviated English

PRENAME Province name English

PRFABBR Province abbreviated French

PRFNAME Province name French

PRNAME Province name

PRUID ID column for each province

PT province or territory

region national region

X center of shape x axis

Y center of shape y axis

rmapshaperid id for geometry

geometry map geometry ...

Source

<https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-eng.cfm>

REG	<i>Regional data set with geometry</i>
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Description

A dataset containing the Canadian province geometry shapes and set regions

Usage

REG

Format

A data frame with 13 rows and 12 variables:

PREABBR Province abbreviated English

PRENAME Province name English

PRFABBR Province abbreviated French

PRFNAME Province name French

PRNAME Province name

PRUID ID column for each province

PT province or territory

region national region

X center of shape x axis

Y center of shape y axis

rmapshaperid id for geometry

geometry map geometry ...

Source

<https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-eng.cfm>

scale_color_map *Color Palettes Line Color*

Description

Create a custom number of colors to use for graphing or mapping based on preset color palettes.

Usage

```
scale_color_map(palette, num, na.value = "grey90", rev = FALSE)
```

Arguments

palette	color palette name
num	number of colors to create
na.value	a color value for NA, defaults to light gray
rev	condition to reverse the order of the colors

Value

a ggplot color palette

scale_fill_map *Color Palettes Fill*

Description

Create a custom number of colors to use for graphing or mapping based on preset color palettes.

Usage

```
scale_fill_map(palette, num, na.value = "grey90", rev = FALSE)
```

Arguments

palette	color palette name
num	number of colors to create
na.value	a color value for NA, defaults to light gray
rev	condition to reverse the order of the colors

Value

a ggplot color palette

text_prov	<i>Province text</i>
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Description

Adds text labels in the center of each province.

Usage

```
text_prov(data = PROV, label = "PT", colour = "grey20", size = 3)
```

Arguments

data	a data set with geometry variable
label	the label variable
colour	text color
size	text size

Value

Provincial map labels

theme_map	<i>Map theme</i>
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Description

Blank theme for mapping.

Usage

```
theme_map(base_size = 9, base_family = "")
```

Arguments

base_size	size for text
base_family	font for text

Value

A blank theme for ggplot

theme_wallis	<i>Wallis graph theme</i>
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Description

Custom theme for graphing.

Usage

```
theme_wallis()
```

Value

A theme for ggplot

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