

Package ‘canadianmaps’

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Title Effortlessly Create Stunning Canadian Maps

Version 2.0.0

Description Simple and seamless access to a variety of 'StatCan' shapefiles for mapping Canadian provinces, regions, forward sortation areas, census divisions, and subdivisions using the popular 'ggplot2' package.

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LazyData true

LazyDataCompression xz

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URL <https://github.com/joellecayen/canadianmaps>

BugReports <https://github.com/joellecayen/canadianmaps/issues>

Imports ggplot2, sp, sf, ggrepel, RColorBrewer, dplyr

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Suggests knitr, rmarkdown, testthat (>= 3.0.0)

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 CD

Canadian Census Division Boundary Data

Description

Provides geospatial information for all Canadian census divisions.

Usage

CD

Format

A data frame with 293 rows and 7 variables:

CDNAME Census Division names

PRUID ID column for each province

rmapshaperid id for geometry

population_2021 Population from 2021 Census

PT province or territory

PRNAME Province name

geometry map geometry ...

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

CSD	<i>Canadian Census Sub Division Boundary Data</i>
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Description

Provides geospatial information for all Canadian census sub divisions.

Usage

CSD

Format

A data frame with 5161 rows and 9 variables:

CDNAME Census Division names
PRUID ID column for each province
CDUID Census Division ID
CMAUID CMA ID
rmapshaperid id for geometry
population_2021 Population from 2021 Census
PT province or territory
PRNAME Province name
geometry map geometry ...

FSA	<i>Canadian FSA Boundary Data</i>
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Description

Provides geospatial information for all Canadian Forward sortation areas (FSA).

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 ...

geom_cd	<i>Mapping Census Division data</i>
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Description

Maps CD data using Statistics Canada CD shape file.

Usage

```
geom_cd(data = CD, 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

census division map.

geom_csd	<i>Mapping Census Sub Division data</i>
----------	---

Description

Maps CSD data using Statistics Canada CSD shape file.

Usage

```
geom_csd(data = CSD, 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

census subdivision map.

`geom_fsa`*Mapping FSA data*

Description

Maps FSA data using Statistics Canada FSA shape file.

Usage

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

Arguments

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

Value

FSA map.

`geom_hr`*Mapping HR data*

Description

Maps HR data using Statistics Canada HR shape file.

Usage

```
geom_hr(data = HR, fill = "PRNAME", colour = "white", size = 0.2)
```

Arguments

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

Value

HR map.

`geom_prov`*Mapping provincial data*

Description

Maps provincial data using Statistics Canada province shape file.

Usage

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

Arguments

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

Value

Provincial map.

`geom_reg`*Mapping regional data*

Description

Maps regional data using Statistics Canada province shape file.

Usage

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

Arguments

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

Value

Regional map.

HR	<i>Canadian HR Boundary Data</i>
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Description

Provides geospatial information for all Health Regions areas (HR).

Usage

HR

Format

A data frame with 104 rows and 8 variables:

HRID ID column for each HR code

HRENGNAME Health Region english name

HRFRNAME Health Region french name

rmapshapeid id for geometry

geometry map geometry

PT province or territory

PRNAME Province name

PRUID ID column for each province ...

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

<i>label_reg</i>	<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

Canadian Province Boundary Data

Description

Provides geospatial information for all 13 Canadian provinces and territories.

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 ...

REG

Canadian Regions Boundary Data

Description

Provides geospatial information for all 4 regions of Canada (Central, Eastern, Western, and Northern).

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 ...

scale_color_map	<i>Color Palettes Line Color</i>
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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	<i>Color Palettes Fill</i>
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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>Plot theme - map</i>
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Description

Blank theme to apply for mapping using ggplot2.

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>Plot theme - Wallis</i>
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Description

Custom theme to apply for plotting using ggplot2.

Usage

```
theme_wallis()
```

Value

A theme for ggplot

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