Package 'norgeo'

April 23, 2023

Title Tracking Geo Code Change of Regional Granularity in Norway

Version 2.1.6

Description Regional granularity levels in Norway which are depicted by different codes, have undergone several changes over the years. Identifying when codes have changed and how many changes have taken place can be troublesome. This package will help to identify these changes and when the changes have taken place. One of the limitation of this package is that it is heavily depending on the codes available from SSB website <https://data.ssb.no/api/klass/v1/api-guide.html>.

License MIT + file LICENSE

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Imports data.table (>= 1.14.0), odbc, DBI, magrittr, RSQLite, writexl, httr, jsonlite

Suggests testthat (>= 3.0.0), pkgdown, vcr (>= 0.6.0), knitr, rmarkdown

URL https://github.com/helseprofil/norgeo

BugReports https://github.com/helseprofil/norgeo/issues

VignetteBuilder knitr

Depends R (>= 3.5.0)

Config/testthat/edition 3

NeedsCompilation no

Author Yusman Kamaleri [aut, cre] (<https://orcid.org/0000-0001-5014-3665>)

Maintainer Yusman Kamaleri <ybkamaleri@gmail.com>

Repository CRAN

Date/Publication 2023-04-23 21:40:11 UTC

R topics documented:

`cast_geo` *Cast geo granularity from API*

Description

Add geo granularity levels to all sides

Usage

```
cast_geo(year = NULL, names = TRUE)
```

Arguments

`year`	Which year the codes are valid from. If NULL then current year will be selected.
`names`	Include names. Default is TRUE

Value

A dataset of class `data.table` representing the spreading of different geographical levels from lower to higher levels ie. from enumeration area codes to county codes, for the selected year.

Examples

```
## Not run:
 DT <- cast_geo(2020)

## End(Not run)
```

geo_save *Save geo codes*

Description

Geo codes can be saved either in a database management system (DBMS) or as an Excel or text file.

Usage

```
geo_save(
  tblname = NULL,
  obj = NULL,
  des.path = FALSE,
  file.type = c("Access", "SQLite", "Excel", "Text"),
  db.name = NULL
)
```

Arguments

tblname	Name of the table to be saved as
obj	Object name to be saved
des.path	Destination folder where the file to be saved
file.type	Choose file type as Access, SQLite, Excel or Text
db.name	When choosing a DBMS then specify the database name

get_change *Get geo code changes with API*

Description

This function will download all geographical code changes from SSB via API except enumeration areas (*grunnkrets*) between 1980 to 2001. The code change can be found in the dataset GrunnkretsBefore2002.

Basically the downloaded data are those you can see directly here, for example if you looking for code change in municipality (*kommune*). The advantage of using get_change or KLASS is that you can get all code changes for several years at once.

Usage

```
get_change(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  code = TRUE,
  quiet = FALSE,
  date = FALSE,
  names = TRUE
)
```

Arguments

type	Type of regional granularity ie. fylke, kommune etc.
from	Specify the starting year for range period. Current year is the default.
to	Specify the year to end the range period. Current year is used when not specified.
code	TRUE will only track code changes. Else change name only will also be considered as change.
quiet	TRUE will suppress messages when no changes happened for a specific time range
date	Give complete date if TRUE else year only. Default it FALSE
names	Include names. Default is TRUE

Value

A dataset of class `data.table` consisting old and new code with the respective year when the codes have changed

Examples

```
DT <- get_change("kommune", from = 2018, to = 2020)
```

---

get_code *Get the codes of geographical levels*

Description

This function will download the codes of selected geographical levels via API.

Usage

```
get_code(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  date = FALSE,
  names = TRUE
)
```

Arguments

type	Type of regional granularity ie. fylke, kommune etc.
from	Specify the starting year for range period. Current year is the default.
to	Specify the year to end the range period. Current year is used when not specified.
date	Give complete date if TRUE else year only. Default it FALSE
names	Include names. Default is TRUE

Value

A dataset of class `data.table` consisting codes of selected geographical level and the duration the codes are valid ie. from and to.

Examples

```
## Not run:
mydata <- get_code("kommune", from = 2017, to = 2020)

## End(Not run)
```

---

get_correspond *Get geo corresponds*

Description

This function will get the corresponding geo code of specific granularity via API from SSB whenever available.

Usage

```
get_correspond(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  correspond = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  dt = TRUE,
  names = TRUE
)
```

Arguments

type	Higher granularity from specified correspond arg.
correspond	Lower granularity from the specified type arg.
from	Specify the starting year for range period. Current year is the default.
to	Specify the year to end the range period. Current year is used when not specified.
dt	Output as data.table
names	Include names. Default is TRUE

Value

A dataset of class `data.table` representing the lower geographical level codes and their corresponding higher geographical levels. For example for codes on enumeration areas and their corresponding codes for municipalities or town.

Examples

```
## Not run:
df <- get_correspond("kommune", "grunnkrets", 2020)

## End(Not run)
```

`GrunnkretsBefore2002` *Grunnkrets Change Before 2002*

Description

Grunnkrets codes change before 2002 are not available via API. This is a dataset received directly from SSB.

Usage

```
GrunnkretsBefore2002
```

Format

A data of `data.table` class consisting 3 variables:

oldCode Code before change

newCode Code after change

changeOccurred The year when the change happened

Source

https://www.ssb.no/klass/klassifikasjoner/1/endringer

track_change *Track all changes for codes from API*

Description

Track all code changes until current year or the year specified in `to` argument. The column `oldCode` could have several codes if it has changed many times until it becomes the code in `newCode`. When no code change has taken place, `NA` will be used.

Usage

```
track_change(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  names = TRUE
)
```

Arguments

`type`	Type of regional granularity ie. fylke, kommune etc.
`from`	Specify the starting year for range period. Current year is the default.
`to`	Specify the year to end the range period. Current year is used when not specified.
`names`	Include names. Default is TRUE

Value

A dataset of class `data.table` consisting all older codes from previous years until the selected year in `to` argument and what these older codes were changed into. If the codes have not changed then the value of old code will be `NA`.

Examples

```
## Not run:
mydata <- track_change("kommune", from = 2017, to = 2020)

## End(Not run)
```

track_merge *Get geo code that are merged after code change*

Description

Get geo code that are merged after code change

Usage

```
track_merge(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  names = TRUE
)
```

Arguments

type	Type of regional granularity ie. fylke, kommune etc.
from	Specify the starting year for range period. Current year is the default.
to	Specify the year to end the range period. Current year is used when not specified.
names	Include names. Default is TRUE

Value

Dataset of class `data.table` with column `merge` showing the number of time the codes have been merged into

Examples

```
dt <- track_merge("kommune", 2018, 2020)
```

track_split *Get geo code that are split after code change*

Description

Get geo code that are split after code change

Usage

```
track_split(
  type = c("fylke", "kommune", "bydel", "grunnkrets"),
  from = NULL,
  to = NULL,
  names = TRUE
)
```

Arguments

type	Type of regional granularity ie. fylke, kommune etc.
from	Specify the starting year for range period. Current year is the default.
to	Specify the year to end the range period. Current year is used when not specified.
names	Include names. Default is TRUE

Value

Dataset of class data.table with column split showing the number of time the codes have been split to

Examples

```
dt <- track_split("kommune", 2018, 2020)
```

Index