Package 'NSO1212'

May 7, 2026

Title National Statistical Office of Mongolia's Open Data API Handler

Version 1.4.0

Date 2021-09-29

Description National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of Mongolian government. NSO provides open access to official data via its API <http://opendata.1212.mn/en/doc>. The package NSO1212 has functions for accessing the API service. The functions are compatible with the API v2.0 and get data sets and its detailed informations from the API.

Maintainer Makhgal Ganbold <makhgal@seas.num.edu.mn>

URL https://github.com/galaamn/NSO1212

BugReports https://github.com/galaamn/NSO1212/issues

Depends R (>= 3.5.0)

Imports httr, jsonlite

License GPL-3

Encoding UTF-8

ByteCompile true

NeedsCompilation no

RoxygenNote 7.1.1

Author Makhgal Ganbold [aut, cre]

Repository CRAN

Date/Publication 2021-09-29 07:10:20 UTC

Contents

`all_tables` *Brief Information about All Database Tables*

Description

Brief information about all available database tables on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

Usage

```
all_tables(try = FALSE, timeout = Inf, na.rm = FALSE)
```

Arguments

`try`	logical: Should the body of the function be wrapped by the function `try`? See details.
`timeout`	positive numeric or `Inf`: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.
`na.rm`	logical: If `TRUE`, it removes empty rows in a data frame which is result of this function.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is `TRUE`, you have to write code with error handling as shown in the example.

Value

A data frame which has brief information of all available database tables if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

rownum Row number

list_id Sector number

tbl_id Table identification number

tbl_nm Table name in Mongolian

tbl_eng_nm Table name in English

unit_id Unit code

cd_nm Unit name in Mongolian

cd_eng_nm Unit name in English

strt_prd Start date

end_prd Finish date

prd_se Time frequency

lst_chn_de Last update date

References

http://opendata.1212.mn/en/doc/Api/GET-api-Itms

See Also

get_table, get_table_info, get_sector_info

Examples

```
all.tables <- all_tables(try = TRUE, timeout = 4)
if (!inherits(all.tables, "try-error")) {
  str(all.tables)
}
```

---

get_sector_info *Detailed Information about All Main Sectors*

Description

Detailed information about all main sectors, which are major classification of data, on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

Usage

```
get_sector_info(try = FALSE, timeout = Inf)
```

Arguments

try	logical: Should the body of the function be wrapped by the function try? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if try is TRUE, you have to write code with error handling as shown in the example.

Value

A data frame which has sector information if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

rownum Row number

list_id Sector identification number

up_list_id Sub sector identification number

list_nm Sector name in Mongolian

list_eng_nm Sector name in English

isExist Whether or exist sub-sectors

References

http://opendata.1212.mn/en/doc/Api/GET-api-Sector

See Also

all_tables, get_table, get_table_info, get_subsector_info

Examples

```
sector_info <- get_sector_info(try = TRUE, timeout = 4)
if (!inherits(sector_info, "try-error")) {
  print(sector_info)
}
```

---

get_subsector_info *Detailed Information about a Sub-Sector*

Description

Detailed information about a sub-sector, which is minor classification of data, on the open-data API which is supported by National Statistical Office of Mongolia

Usage

```
get_subsector_info(subid, try = FALSE, timeout = Inf)
```

Arguments

subid	character string, Sub-sector identification number
try	logical: Should the body of the function be wrapped by the function try? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if try is TRUE, you have to write code with error handling as shown in the example.

Value

A data frame which has sub-sector information if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

rownum Row number

list_id Sector identification number

up_list_id Sub sector identification number

list_nm Sector name in Mongolian

list_eng_nm Sector name in English

isExist Whether or exist sub-sectors

References

http://opendata.1212.mn/en/doc/Api/GET-api-Sector_subid

See Also

all_tables, get_table, get_table_info, get_sector_info

Examples

```
subsector_info <- get_subsector_info("976_L05", try = TRUE, timeout = 4)
if (!inherits(subsector_info, "try-error")) {
  print(subsector_info)
}
```

---

get_table *Download a Database Table*

Description

It downloads a database table, which contains statistical data, from the open-data API which is supported by National Statistical Office of Mongolia (NSO).

Usage

```
get_table(
  tbl_id,
  PERIOD = NULL,
  CODE = NULL,
  CODE1 = NULL,
  CODE2 = NULL,
  try = FALSE,
  timeout = Inf
)

make_period(start, end = NULL, period = "Y")
```

Arguments

`tbl_id`	character string, Table identification number
`PERIOD`	character vector, Time
`CODE, CODE1, CODE2`	character vector, Classification code (age, gender etc)
`try`	logical: Should the main body of the function be wrapped by the function `try`? See details.
`timeout`	positive numeric or `Inf`: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.
`start, end`	Starting and stopping moments of period which has following formats: "YYYY", "YYYYMM", "YYYYMMDD", "YYYYQQ". Notations YYYY, MM, DD and QQ, respectively, indicate year, month, day and quarter of a date. These are written as a number has a leading zero, if necessary.
`period`	One of single characters "Y" (default), "M", "D" and "Q" which represent periods yearly, monthly, daily and quarterly respectively. There is one more value "F" which is supported by the API. However it can not be used for such function due to there is not a fixed rule for this type of periods.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is `TRUE`, you have to write code with error handling as shown in the example.

Value

A data frame if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The data frame has following structure:

TBL_ID Row number

Period Time

CODE Classification code

SCR_MN Classification name in Mongolian

SCR_ENG Classification name in English

CODE1 Classification code

SCR_MN1 Classification name in Mongolian

SCR_ENG1 Classification name in English

CODE2 Classification code

SCR_MN2 Classification name in Mongolian

SCR_ENG2 Classification name in English

DTVAL_CO Datum

a character vector which contains an API compatible period.

Functions

- `make_period`: It is used to prepare values for the argument `PERIOD` of the function get_table.

References

http://opendata.1212.mn/en/doc/Api/POST-api-Data

See Also

all_tables, get_table_info, get_sector_info

Examples

```
nso.data <- get_table(
  tbl_id = "DT_NSO_2400_015V2",
  PERIOD = make_period(start = "201711", end = "202103", period = "M"),
  CODE = c("10", "11"),
  CODE1 = "11",
  try = TRUE,  # to prevent a server error
  timeout = 4
)
if (!inherits(nso.data, "try-error")) {
  print(nso.data)
}
```

`get_table_info` *Detailed Information about a Database Table and Its Classification*

Description

Detailed information about a database table and its classification on the open-data API which is supported by National Statistical Office of Mongolia (NSO)

Usage

```
get_table_info(tbl_id, simplify = FALSE, try = FALSE, timeout = Inf)
```

Arguments

`tbl_id`	character string, Table identification number
`simplify`	logical: Should the result be simplified to a vector and a data frame?
`try`	logical: Should the body of the function be wrapped by the function `try`? See details.
`timeout`	positive numeric or `Inf`: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is `TRUE`, you have to write code with error handling as shown in the example.

Value

A list which contains information about database table and its classification if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The list has following structure:

tbl_id Table identification number

unit_id Unit identification number

unit_nm Unit name in Mongolia

unit_eng_nm Unit name in English

obj Table classification:

- **obj_var_id** Variable identification
- **var_ord_sn** Variable identification number
- **field** Field name
- **scr_mn** Variable name in Mongolian
- **scr_eng** Variable identification
- **itm** Variable classification and code:
  - **itm_id** Classification number
  - **up_itm_id** Sub-classification
  - **scr_mn** Classification name in Mongolian
  - **scr_eng** Classification name in English

if `simplify` is `TRUE`, an user-friendly result is returned.

References

http://opendata.1212.mn/en/doc/Api/GET-api-Itms-id

See Also

all_tables, get_table, get_sector_info

Examples

```
# tree shaped result
table_info <- get_table_info("DT_NSO_2400_015V2", try = TRUE,, timeout = 4)
if (!inherits(table_info, "try-error")) {
  str(table_info)
}
# tabular result
table_info_simplified <- get_table_info(
  "DT_NSO_2400_015V2", simplify = TRUE, try = TRUE, timeout = 4)
if (!inherits(table_info_simplified, "try-error")) {
  str(table_info_simplified)
}
```

NSO1212 *National Statistical Office of Mongolia's Open Data API Handler*

Description

National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of Mongolian government. NSO provides open access and official data via its open-data API. The package NSO1212 has functions for accessing the API service. The functions are compatible with the API v2.0 and get data-sets or its detailed information from the API.

Author(s)

Makhgal Ganbold, National University of Mongolia

References

http://opendata.1212.mn/en/doc

Index