

Package ‘BFS’

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Type Package

Title Search and Download Data from the Swiss Federal Statistical Office (BFS)

Version 0.3.0

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Description

Search and download data from the Swiss Federal Statistical Office <<https://www.bfs.admin.ch/>>.

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Depends R (>= 3.0.1)

Imports xml2, rvest, tibble, magrittr, purrr, janitor, progress, pxR,
pins, dplyr, tidyRSS

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

URL <https://felixluginbuhl.com/BFS/>, <https://github.com/lgnbhl/BFS/>

BugReports <https://github.com/lgnbhl/BFS/issues>

Suggests testthat (>= 2.1.0)

NeedsCompilation no

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Repository CRAN

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R topics documented:

bfs_get_catalog	2
bfs_get_dataset	2
bfs_get_metadata	3
bfs_open_dir	4
bfs_search	5
get_bfs_metadata	6
get_bfs_metadata_all	6

Index[7](#)

bfs_get_catalog	<i>Get the Swiss Federal Statistical Office data catalog in a given language</i>
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Description

This function scraps the RSS Feed of the Swiss Federal Statistical Office data catalog.

Usage

```
bfs_get_catalog(language = c("de", "fr", "it", "en"))
```

Arguments

language character The language of a BFS catalog.

Value

A data frame

See Also

[bfs_get_metadata](#)

Examples

```
bfs_get_catalog(language = "de")
```

bfs_get_dataset	<i>Download BFS dataset in a given language</i>
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Description

Returns a data frame/tibble from the URL of a given BFS PC-Axis file. The default language is German and the column names are renamed using the [clean_names](#) function of the janitor package. If the path of the cache argument is not provided, the downloaded BFS dataset will be saved in the default cache folder of the pins package. The metadata can be accessed by making the downloaded dataset an argument of the base R function `attributes()`.

Usage

```
bfs_get_dataset(  
  url_px,  
  language = "de",  
  path = pins::board_cache_path(),  
  clean_names = TRUE,  
  force = FALSE  
)
```

Arguments

url_px	The url link to download the PC-Axis file.
language	Language of the dataset to be translated if exists.
path	The local folder to use as a cache, default to pins cache.
clean_names	Clean column names using <code>janitor::clean_names()</code>
force	Force download to download data even if already downloaded today.

Details

The BFS data is saved in a local folder using the pins package. The function allows to download the BFS data only once per day. If the data has already been downloaded during the day, the existing dataset is loaded into R from the pins caching folder instead of downloading again the data from the BFS website.

See Also

[bfs_get_metadata](#)

bfs_get_metadata	<i>Download BFS metadata in a given language</i>
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Description

Returns a tibble containing the titles, publication dates, observation periods, data source, metadata webpage urls and download link urls in a given language of the current public BFS datasets available. If the path of the cache argument is not provided, the downloaded BFS dataset will be saved in the default cache folder of the pins package.

Usage

```
bfs_get_metadata(  
  language = "de",  
  path = pins::board_cache_path(),  
  force = FALSE  
)
```

Arguments

language	character	The language of the metadata.
path		Path to local folder to use as a cache, default to pins cache.
force		Force to download metadata even if already downloaded today.

Details

Languages available are German ("de", as default), French ("fr"), Italian ("it") and English ("en"). Note that Italian and English BFS metadata doesn't give access to all the BFS datasets available online.

The BFS metadata is saved in a local folder using the pins package. The function allows to download the BFS metadata only once per day in a given language. If the metadata has already been downloaded in a given language during the day, the existing dataset is loaded into R from the pins caching folder instead of downloading again the metadata from the BFS website.

Value

A tibble

See Also

[bfs_get_dataset](#)

Examples

```
meta_en <- bfs_get_metadata(language = "en")
```

bfs_open_dir

Open folder containing all downloaded BFS datasets

Description

Opens the folder which contains all the BFS datasets downloaded relatively to their path argument, using the pins package. If no path argument is provided, the downloaded BFS datasets will be saved in the default cache folder of the pins package.

Usage

```
bfs_open_dir(path = pins::board_local_storage())
```

Arguments

path	The local folder to use as a cache, default to pins cache.
------	------------------------------------------------------------

See Also

[bfs_get_dataset](#)

Examples

```
bfs_open_dir()
```

bfs_search	<i>Search titles of available BFS datasets</i>
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Description

Returns a tibble containing the titles, publication date, observation periods, data source, metadata url and download urls of available BFS datasets in a given language which match the given criteria. This function leverages the R base function `grep1` but calls the `data` argument first to allow the use of the pipe operator from `magrittr`.

Usage

```
bfs_search(  
  data = bfs_get_metadata(),  
  pattern,  
  ignore.case = TRUE,  
  fixed = FALSE  
)
```

Arguments

<code>data</code>	The data frame to search. This can be either a data frame previously fetched using <code>bfs_get_metadata</code> (recommended) or left blank, in which case a temporary data frame is fetched. The second option adds a few seconds to each search query.
<code>pattern</code>	A regular expression string to search for.
<code>ignore.case</code>	Whether the search should be case-insensitive.
<code>fixed</code>	logical. If TRUE, <code>pattern</code> is a string to be matched as is.

Value

A data frame.

See Also

[bfs_get_metadata](#)

Examples

```
meta_en <- bfs_get_metadata(language = "en")  
bfs_search(data = meta_en, pattern = "university students")
```

get_bfs_metadata *Get metadata of a give url page*

Description

Get metadata of a give url page

Usage

```
get_bfs_metadata(url)
```

Arguments

url character The url of a BFS webpage

Value

A data frame

get_bfs_metadata_all *Looping on a list of BFS webpages urls*

Description

Looping on a list of BFS webpages urls

Usage

```
get_bfs_metadata_all(i)
```

Arguments

i character The url of a BFS webpage

Value

A data frame

Index

bfs_get_catalog, 2
bfs_get_dataset, 2, 4
bfs_get_metadata, 2, 3, 3, 5
bfs_open_dir, 4
bfs_search, 5

clean_names, 2

get_bfs_metadata, 6
get_bfs_metadata_all, 6