

Package ‘BFS’

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Type Package

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

Version 0.2.5

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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

Encoding UTF-8

LazyData true

RoxygenNote 7.1.0

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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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(),  
  force = FALSE  
)
```

Arguments

<code>url_px</code>	The url link to download the PC-Axis file.
<code>language</code>	Language of the dataset to be translated if exists.
<code>path</code>	The local folder to use as a cache, default to pins cache.
<code>force</code>	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](#)

Examples

```
meta_en <- bfs_get_metadata(language = "en")  
bfs_meta_edu <- bfs_search(data = meta_en, pattern = "university students")  
bfs_get_dataset(bfs_meta_edu$url_px[1], language = "en")
```

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 availables 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 availables 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`*Search titles of available BFS datasets*

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 `grep` 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

data	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.
pattern	A regular expression string to search for.
ignore.case	Whether the search should be case-insensitive.
fixed	logical. If TRUE, pattern 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
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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

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