

Package ‘metsyn’

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Type Package

Title Interface with the Meteo France Synop Data API

Version 0.1.2

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Description Provides an interface with the Meteo France Synop data API
(see <https://donneespubliques.meteofrance.fr/?fond=produit&id_produit=90&id_rubrique=32>
for more information).
The Meteo France Synop data are made of meteorological data recorded
every three hours on 62 French meteorological stations.

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LazyData TRUE

Depends R (>= 3.1.3)

Imports foreach, readr, stringr, tibble, utils

URL <https://github.com/paulponcet/metsyn>

BugReports <https://github.com/paulponcet/metsyn/issues>

RoxygenNote 6.1.0

NeedsCompilation no

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download_daily_synop *Download Meteo France Synop Data*

Description

The functions `download_daily_synop` and `download_monthly_synop` enable to download Meteo France Synop Data described [here](#).

Usage

```
download_daily_synop(path = ".", date, ...)
```

```
download_monthly_synop(path = ".", date, ...)
```

Arguments

<code>path</code>	character. Data once downloaded are saved in the folder <code>file.path(path, "data-raw")</code> .
<code>date</code>	character. For <code>download_daily_synop</code> , a date in the form "YYYYMMDDHH". For <code>download_monthly_synop</code> , a date in the form "YYYYMM".
<code>...</code>	Additional parameters to be passed to download.file .

See Also

[make_metsyn](#).

make_metdes *Creation of the 'metdes' dataset, made of descriptive information on the 'metsyn' dataset*

Description

The function `make_metdes` creates the `metdes` dataset, which contains descriptive information on the `metsyn` dataset.

The dataset contains the following columns:

- `Short_Name`: short name of the variable, in French;
- `Long_name_French`: name of the variable, in French;
- `Long_Name_English`: currently not provided yet;
- `Type`: type of the variable (one of `character`, `numeric`, `integer`);
- `Unit`: physical unit of the variable.

Usage

```
make_metdes(path = ".", save_it = FALSE)
```

Arguments

`path` character. Data once created are saved in the folder `file.path(path, "data")`.
`save_it` logical. If TRUE, the result is saved as an `.RData` file in the folder `file.path(path, "data")`.

Value

Returns invisibly the tibble created, with 5 columns and 59 rows.

Note

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Source

Meteo France, see [here](#).

See Also

[metsyn](#) for the dataset containing Meteo France Synop data; [metsta](#) for the dataset on the meteorological stations involved.

Examples

```
## Not run:  
make_metdes(save_it = TRUE)  
  
## End(Not run)
```

make_metsta	<i>Creation of the 'metsta' dataset made of Meteo France Synop meteorological stations</i>
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Description

The function `make_metsta` creates the `metsta` dataset from the file `postesSynop.csv` downloaded [here](#). `make_metsta` looks for this file in the `file.path(path, "data-raw")` folder.

This dataset contains the following columns:

- Id: WMO meteorological station id;
- Name: name of the meteorological station;
- Latitude, Longitude, Altitude: coordinates of the meteorological station.

Usage

```
make_metsta(path = ".", save_it = FALSE)
```

Arguments

`path` character. Data once created are saved in the folder `file.path(path, "data")`.
`save_it` logical. If TRUE, the result is saved as an `.RData` file in the folder `file.path(path, "data")`.

Value

Returns invisibly the tibble created, with 5 columns and 62 rows.

Note

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Source

Meteo France, see [here](#).

See Also

[metsyn](#) for the dataset containing Meteo France Synop data; [metdes](#) for the dataset which gives some descriptive information on `metsyn`.

Examples

```
## Not run:  
dir.create("data-raw", showWarnings = FALSE)  
make_metsta(save_it = TRUE)  
  
## End(Not run)
```

make_metsyn

Creation of the 'metsyn' dataset made of Meteo France Synop data

Description

The function `make_metsyn` creates the `metsyn` dataset from the files downloaded with [download_monthly_synop](#). `make_metsyn` looks for these files in the `file.path(path, "data-raw")` folder.

This dataset is made of meteorological data recorded every three hours on 62 French meteorological stations.

The columns contained in this dataset are described by the [metdes](#) dataset.

Usage

```
make_metsyn(path = ".", save_it = FALSE)
```

Arguments

`path` character. Data once created are saved in the folder `file.path(path, "data")`.
`save_it` logical. If TRUE, the result is saved as an `.RData` file in the folder `file.path(path, "data")`.

Value

Returns invisibly the tibble created, with 59 columns.

Note

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Source

Meteo France, see [here](#).

See Also

[download_monthly_synop](#); [metdes](#) for the dataset which gives some descriptive information on `metsyn`; [metsta](#) for the dataset on the meteorological stations involved.

Examples

```
## Not run:
dir.create("data-raw", showWarnings = FALSE)
for (y in 1996:2016) {
  for (m in 1:12) {
    m <- if (m < 10) paste0(0, m) else m
    download_monthly_synop(date = paste0(y, m),
                          mode = "wb")
  }
}
make_metsyn(save_it = TRUE)

## End(Not run)
```

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