

Package ‘brclimr’

April 4, 2024

Title Fetch Zonal Statistics of Weather Indicators for Brazilian Municipalities

Version 0.2.0

Description Fetches zonal statistics from weather indicators that were calculated for each municipality in Brazil using data from the BR-DWGD and TerraClimate projects. Zonal statistics such as mean, maximum, minimum, standard deviation, and sum were computed by taking into account the data cells that intersect the boundaries of each municipality and stored in Parquet files. This procedure was carried out for all Brazilian municipalities, and for all available dates, for every indicator available in the weather products (BR-DWGD and TerraClimate projects). This package queries on-line the already calculated statistics on the Parquet files and returns easy-to-use data.frames.

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URL <https://rfsaldanha.github.io/brclimr/>,
<https://github.com/rfsaldanha/brclimr>

Encoding UTF-8

RoxygenNote 7.3.1

Imports checkmate, rlang, lobstr, magrittr, DBI, duckdb, glue

Suggests testthat (>= 3.0.0), spelling

Config/testthat/edition 3

Depends R (>= 2.10)

LazyData true

Language en-US

NeedsCompilation no

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brdwgd_data	<i>BR-DWGD zonal statistics data</i>
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Description

A list with BR-DWGD zonal indicators data.

Usage

```
brdwgd_data
```

Format

An object of class `list` of length 7.

fetch_data	<i>Fetch zonal statistics</i>
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Description

Fetch zonal statistics from a product for given municipality code and dates.

Usage

```
fetch_data(code_muni, product, indicator, statistics, date_start, date_end)
```

Arguments

code_muni	numeric. IBGE municipality code number with 7 digits.
product	string. Zonal indicator product. Options are: brdwgd, terraclimate.
indicator	string. Indicator name from the product. Check the available indicators with the product_info function.
statistics	string. Statistics name from the indicator. Check the available statistics with the product_info function.
date_start	date, included in the selection.
date_end	date, included in the selection, must be equal or greater than date_start.

Details

For products with monthly data, like terraclimate, inform the start and end dates with the first day of the month. Example: `as.Date("2008-06-01")` for June, 2008.

Value

A tibble with date and value columns.

Examples

```
## Not run:
fetch_data(
  code_muni = 3304557,
  product = "brdwgd",
  indicator = "tmax",
  statistics = "mean",
  date_start = as.Date("2008-01-01"),
  date_end = as.Date("2008-01-10")
)

## End(Not run)
```

product_info	<i>Print product information, indicators acronyms and available statistics</i>
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Description

Print product information, indicators acronyms and available statistics

Usage

```
product_info(product)
```

Arguments

product	Zonal indicator product. Options are: brdwgd, terraclimate.
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Value

Printed list tree on the console.

Examples

```
product_info("terraclimate")
```

terraclimate_data	<i>TerraClimate zonal statistics data</i>
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Description

A list with TerraClimate zonal indicators data.

Usage

```
terraclimate_data
```

Format

An object of class `list` of length 14.

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