Package 'RClimChange'

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Type Package

Title A package to manipulate Global Climate Models from NCCS THREDDS NEX-GDDP-CMIP6

Version 3.1.0

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Description
This package contain simple tools for downloading and subsetting daily GCM data from CMIP6.

License GPL (>= 2)

Encoding UTF-8

Depends R (>= 3.6),

Imports ncdf4, RCurl, data.table, tictoc

RoxygenNote 7.1.2

RemoteType github

RemoteHost api.github.com

RemoteRepo RClimChange

RemoteUsername hllauca

RemoteRef HEAD

RemoteSha b27b3a7904fc1621057052226a0e54500cf7c53e

GithubRepo RClimChange

GithubUsername hllauca

GithubRef HEAD

GithubSHA1 b27b3a7904fc1621057052226a0e54500cf7c53e

NeedsCompilation no

R topics documented:

gcm_download_data *Download CMIP6 daily data from NCCS THREDDS NEX-GDDP-CMIP6.*

Description

Download CMIP6 daily data from NCCS THREDDS NEX-GDDP-CMIP6.

Usage

```
gcm_download_data(
  location,
  model = NULL,
  scenario,
  variable,
  years,
  roi,
  method = "curl"
)
```

Arguments

location	Work directory to store downloaded data.
model	Model names to download. If NULL, all available models will be selected.
scenario	Choose the scenario to be downloaded ('historical','ssp126','ssp245', 'ssp370',or 'ssp585). Some models could haven't all scenarios.
variable	Choose the variable to be downloaded ('hurs','huss','pr','rlds','rsds','sfcWind','tas','tasmax', or 'tasmin').
years	Choose data years to be downloaded (1950:2014 for 'historical' and 2015:2100 for 'ssp126', 'ssp245', 'ssp370' and 'ssp585').
roi	Vector of coordinates for subsetting data (xmin, xmax, ymin, ymax). If NULL, original extension data will be downloaded.
method	Method to be used for downloading files. Current download methods are 'internal', 'wininet' (Windows only), 'libcurl', 'wget' and 'curl'. The 'curl' method is recommended for Windows users.

Value

CMIP6 daily data (in netCDF format).

Examples

```
# Load package
require(RClimChange)

# Download daily precipitation (in mm/d) from the BCC-CSM2-MR model; for 1990 and the Peruvian domain
gcm_download_data(location=getwd(),
                  model='BCC-CSM2-MR',
                  scenario='historical',
                  variable='pr',
```

```
years=1990,
roi=c(-86,-66,-20,2),
method='curl')
```

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