Package: PEcAn.LPJGUESS (via r-universe)

November 4, 2024

Type Package

Title PEcAn Package for Integration of the LPJ-GUESS Model

Version 1.7.3.9000

Description This module provides functions to link LPJ-GUESS to PEcAn.

Imports PEcAn.logger, PEcAn.remote, PEcAn.utils, lubridate (>= 1.6.0),
ncdf4 (>= 1.15), tibble

Suggests testthat (>= 1.0.2)

SystemRequirements LPJ-GUESS model

OS_type unix

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LazyLoad yes

LazyData FALSE

Encoding UTF-8

RoxygenNote 7.3.2

Repository https://pecanproject.r-universe.dev

RemoteUrl https://github.com/PecanProject/pecan

RemoteRef HEAD

RemoteSha caad7b3f8386df43eaf44f9316459f66ffc69b0b

Contents

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met2model.LPJGUESS   *met2model.LPJGUESS*

Description

met2model wrapper for LPJ-GUESS

Usage

```
met2model.LPJGUESS(
  in.path,
  in.prefix,
  outfolder,
  start_date,
  end_date,
  overwrite = FALSE,
  verbose = FALSE,
  ...
)
```

Arguments

in.path	location on disk where inputs are stored
in.prefix	prefix of input and output files
outfolder	location on disk where outputs will be stored
start_date	the start date of the data to be downloaded (will only use the year part of the date)
end_date	the end date of the data to be downloaded (will only use the year part of the date)
overwrite	should existing files be overwritten
verbose	should the function be very verbose
...	additional arguments, currently ignored

Author(s)

Istem Fer

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model2netcdf.LPJGUESS *Function to convert LPJ-GUESS model output to standard netCDF format*

Description

Convert LPJ-GUESS output to netCDF

Usage

```
model2netcdf.LPJGUESS(outdir, sitelat, sitelon, start_date, end_date)
```

Arguments

outdir	Location of LPJ-GUESS model output
sitelat	Latitude of the site
sitelon	Longitude of the site
start_date	Start time of the simulation
end_date	End time of the simulation

Author(s)

Istem Fer

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pecan2lpjguess *Function to translate pecan param names and units to lpjguess names and units*

Description

Function to translate pecan param names and units to lpjguess names and units

Usage

```
pecan2lpjguess(trait.values)
```

Arguments

trait.values	trait.values, list

Value

translated list

Author(s)

Istem Fer

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readStateBinary   *readStateBinary.LPJGUESS*

Description

read binary state file of LPJ-GUESS

Usage

```
readStateBinary(out.path, npft)
```

Arguments

out.path	location on disk where model run outputs are stored
npft	number of pfts specified in instruction file

Value

Patchpft_list state variables common to all individuals of a particular PFT

Author(s)

Istem Fer

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write.config.LPJGUESS   *Write LPJ-GUESS configuration files*

Description

Writes a LPJ-GUESS config file.

Usage

```
write.config.LPJGUESS(defaults, trait.values, settings, run.id)
```

Arguments

defaults	list of defaults to process
trait.values	vector of samples for a given trait
settings	list of settings from pecan settings file
run.id	id of run

Details

Requires a pft xml object, a list of trait values for a single model run, and the name of the file to create

Value

configuration file for LPJ-GUESS for given run

Author(s)

Istem Fer, Tony Gardella

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write.insfile.LPJGUESS

Write LPJ-GUESS instruction script

Description

Write LPJ-GUESS instruction script

Usage

```
write.insfile.LPJGUESS(settings, trait.values, rundir, outdir, run.id)
```

Arguments

settings	PEcAn settings list
trait.values	trait.values
rundir	rundir
outdir	outdir
run.id	PEcAn run ID

Value

settings Updated list

Author(s)

Istem Fer

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