Package 'rtrim'

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Title Trends and Indices for Monitoring Data

LazyData no

Type Package

LazyLoad yes

Description Reimplementation of the TRIM software of Pannekoek and van Strien.

Version 0.0.1

Depends R (>= 2.15.3)

Imports methods, utils

URL https://github.com/markvanderloo/rtrim

BugReports https://github.com/markvanderloo/rtrim/issues

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Suggests testthat

RoxygenNote 5.0.1

Collate 'getset.R' 'read_tdf.R' 'rtrim-pkg.R' 'tcf.R' 'trim.R' 'trim_engine.R'

NeedsCompilation no

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R topics documented:

rtrim-package *Reimplementation of the TRIM software of Jeroen Pannekoek*

Description

Reimplementation of the TRIM software of Jeroen Pannekoek

read_tcf *Read a TRIM command file*

Description

Read a TRIM command file

Usage

```
read_tcf(file)
```

Arguments

file	Location of tcf file.

Value

An object of class TRIMcommand

Details

Read Trim Command Files, compatible with the Windows TRIM programme.

read_tdf *Read TRIM data file*

Description

Read TRIM data file

Usage

```
read_tdf(file, missing_code = -1L, snif = 10L, weight = FALSE,
  strict = FALSE)
```

Arguments

file	[character] Input data file. See details section for spec.
missing_code	[integer] Code for missing counts (see Details).
snif	[integer] Number of lines read to determine input format.
weight	[logical] Is there a weight column present?
strict	[logical] Check data against TRIM requirements? (see Details).

Value

A `data.frame` with columns named `site`, `time`, `count`, and optionally `weight` and `covar01...covarNN` for covariate labels.

Details

TRIM input data is specified in the original TRIM manual as follows.

The data file is an ASCII file containing one line (a record) for each combination of Site and Time. So, for I sites and J time- points, the number of records is $I \times J$. Each record contains the following variables (the order is important!), separated by one or more spaces.

Variable	Values	Required/optional
Site identifier	`integer < 1E8.`	required
Time-point identifier	`integer < 1e4`	required
Count	`integer <2e9` or missing code	required
Weight	`real > 0.001`	optional
Category of 1st covariate	`integer` in `1,2,...,90`	optional
⋮		
Category of last covariate		

The missing code (see section 3.2) must be a integer in the range (`-32767...32767`) and should be chosen outside the range of observed counts. Zero will usually not be outside the range, but a negative number such as -1 will always be outside the range of observed counts.

If `strict==TRUE`, the data are checked against the demands in the table. Otherwise they are just treated as R-native types with less restrictions on the size of integers.

`trim` *Compute TRIM model*

Description

Compute the TRIM model

Usage

```
trim(x, y, ...)

## S4 method for signature 'TRIMcommand,ANY'
trim(x, y = NULL, ...)

## S4 method for signature 'character,ANY'
trim(x, y = NULL, ...)

## S4 method for signature 'data.frame,TRIMcommand'
trim(x, y, ...)
```

Arguments

x	[character|TRIMcommand|data.frame] An R-object (see Details)
y	[optional] R-object
...	Extra parameters, to be passed to underlying methods.

TRIMcommand-class *Stores TRIM command options*

Description

Stores TRIM command options

Slots

origin Where did the data for this object come from (either a filname or 'commandline').

file [character] name of file containing training data.

title [character] A string to be printed in the output file.

ntimes [character] Number of time points.

ncovars [character] Number of covariates.

labels [character] Covariate label.

weight [logical] Whether a weight column is present in the file.

comment [character] A string to be printed in the output file.

weighting [logical] Whether weights are to be used in the model.

serialcor [logical] Whether serial correlation is assumed in the model.

overdist [logical] Whether overdispersion is taken into account by the model.

basetime [integer] Position of the base time point (must be positive).

model [integer] What model to use (1, 2 or 3).

covariates [integer] Number of covariates to include.

changepoints [integer] Positions of the change points to include.

stepwise [logical] Whether stepwise selection of the changepoints is to be used.

outputfiles [character] Type of outputfile to generate ('F' and/or 'S')

run [logical], IGNORED (run the file)

See Also

read_tcf

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