Package 'biblio'

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Encoding UTF-8

Title Interacting with BibTeX Databases

Depends R(>= 3.5.0)

Imports methods,
stringr,
yamlme

Suggests covr,
devtools,
rmarkdown,
testthat

LazyData true

Description Reading and writing BibTeX files using data frames in R sessions.

License GPL (>= 2)

URL https://github.com/kamapu/biblio

BugReports https://github.com/kamapu/biblio/issues

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.2

R topics documented:

compare_df *Compare data frames and libraries*

Description

Report on differences between two versions of the same data frame or electronic library. When used for data frames, you need to indicate the variable containing IDs for each entry, while applied to lib_df objects, the variable 'bibtexkey' will be considered as ID per default.

The output printed in the console will advice about added and deleted entries in 'y' as well as any change in the entries common to both versions.

Usage

```
compare_df(x, y, key, ...)

## S4 method for signature 'data.frame,data.frame,character'
compare_df(x, y, key, ...)

## S4 method for signature 'lib_df,lib_df,missing'
compare_df(x, y, key, ...)
```

Arguments

x	The reference data frame.
y	The updated data frame.
key	A character value with the name of the variable used as primary key in the tables.
...	Further arguments passed among methods.

Value

A S3 object of class comp_df, which can be printed in the console by `print()`.

See Also

`update()`, lib_df, comp_df

Examples

```
# Partially matching libraries
Refs1 <- synopsis[1:10, ]
Refs2 <- synopsis[6:15, ]

# some modification in second library
Refs2[3, "title"] <- "New Title"

# compare libraries
compare_df(Refs1, Refs2)
```

comp_df-class *Compared libraries*

Description

An S3 class for compared data frames. A list containing added, deleted entries on the regarding a key column and cells that are modified.

detect_keys *Detect bibtexkeys used in an r-markdown document*

Description

This function screens a character vector (usually an imported r-markdown document) for the use of citations by bibtexkeys (@bibtexkey), retrieving the detected key with its occurrence in the vector, assuming each element as a line of the original document.

This function is based on `bbt_detect_citations()` from the package rbbt.

Usage

```
detect_keys(x, ...)

## S3 method for class 'character'
detect_keys(x, ...)

## S3 method for class 'rmd_doc'
detect_keys(x, ...)
```

Arguments

`x`	A character vector, a file imported by `readLines()` or an object imported by `read_rmd()`. If the character vector is the name of a Rmd file, `readLines()` will be internally called to read it.
`...`	Further arguments passed among methods. In character-method they are passed to `readLines()`.

Value

A data frame with two columns, `bibtexkey` for the found keys and `line` with the line number of the occurrence of the key in the document.

Examples

```
## Read installed r-markdown document
my_document <- readLines(file.path(path.package("biblio"), "document.Rmd"))

## Screen for citations
cited_refs <- detect_keys(my_document)
cited_refs
```

`lib_df-class` *Electronic library*

Description

An S3 class for library entries. This class inherits properties from data frames.

`print` *Print content of lib_df objects*

Description

A method for a brief overview on the content of a lib_df or a comp_df object.

Usage

```
## S3 method for class 'lib_df'
print(x, ...)

## S3 method for class 'comp_df'
print(x, ...)
```

Arguments

`x`	An object of class 'lib_df'.
`...`	Further arguments passed among methods.

Value

An invisible object, printed in the console.

Author(s)

Miguel Alvarez

Examples

```
synopsis
```

read_bib *Read BibTeX Databases*

Description

Reading BibTeX databases and importing into R as a data frame. All the fields will be inserted as character values.

Usage

```
read_bib(x, ...)
```

Arguments

x	Path to BibTeX file.
...	Further arguments passed to `readLines()`.

Value

An object of class lib_df.

Examples

```
Refs <- read_bib(x = file.path(path.package("biblio"),
  "LuebertPliscoff.bib"))
Refs
```

reflist *Write a Reference List in HTML*

Description

A fast way to produce a reference list in an html document from a `lib_df` object.

This function may or may not produce intermediate files (bib and Rmd) and the result can be assigned to an object for further edition (see `yamlme::update()`).

A html file will be written by `write_rmd()` and `render_rmd()` in the working directory and displayed by `browseURL()`.

Usage

```
reflist(x, ...)

## S4 method for signature 'lib_df'
reflist(
  x,
  filename = "references",
  bib_file,
  delete_rmd = FALSE,
  delete_bib = delete_rmd,
  browse_file = TRUE,
  title = "Automatic Reference List",
  output = "html_document",
  nocite = "'@*'",
  urlcolor = "blue",
  encoding = "UTF-8",
  ...
)

## S4 method for signature 'character'
reflist(x, filename = "references", ...)
```

Arguments

x	A lib_df object to produce the reference list. In the character method, a character value indicating the path of a bibtex file (passed to read_bib()).
...	Further arguments passed to write_rmd() by the lib_df method, or to the lib_df method by the character method.
filename	A character value with the name for the written Rmd file, without file extension.
bib_file	A character value with the name for the written bibtex file. In the lib_df method it can be omitted and will then named by tempfile(). In the character method it is not required.
delete_rmd	A logical value indicating whether written Rmd file should be deleted after rendering html or not.
delete_bib	A logical value indicating whether written bib file should be deleted after rendering html or not.
browse_file	A logical value indicating whether the resulting html file should be opened in a browser or not.
title, output, nocite, urlcolor	Arguments used for the yaml-header in r-markdown and passed to write_rmd(). They can be cancelled using the value NULL (not recommended for nocite).
encoding	A character value indicating the encoding string. It is passed to write_bib().

Value

By default a html document with ta list of references. The output can be modified to other options using **R-markdown** (see documentation for the package yamlme).

Examples

```
## Not run:
reflist(synopsis)

## End(Not run)
```

`synopsis` *References by Lueber and Pliscoff (2018)*

Description

Example of an object formatted as lib_df. This library is published with the references of the book **Bioclimatic and vegetational synopsis of Chile** by Luebert and Pliscoff (2017).

Usage

```
synopsis
```

Format

An object of class `lib_df` (inherits from `data.frame`) with 1701 rows and 23 columns.

Source

doi: 10.5281/zenodo.60800

Examples

```
data(synopsis)

## Import from installed bibtex file
synopsis <- read_bib(x = file.path(path.package("biblio"),
  "LuebertPliscoff.bib"))
```

`update` *Update data frames*

Description

This function compares two versions of the same data frame and detect changes as additions, deleted entries or updates (modified entries).

A method to compare lib_df objects is also provided as well as a replace method.

Usage

```
## S3 method for class 'data.frame'
update(object, revision, key, delete = FALSE, add = FALSE, update = FALSE, ...)

## S3 method for class 'lib_df'
update(
  object,
  revision,
  key = "bibtexkey",
  delete = FALSE,
  add = FALSE,
  update = FALSE,
  ...
)

update(object, ...) <- value

## S4 replacement method for signature 'data.frame,data.frame'
update(object, key, delete = FALSE, add = FALSE, update = FALSE, ...) <- value

## S4 replacement method for signature 'lib_df,lib_df'
update(
  object,
  key = "bibtexkey",
  delete = FALSE,
  add = FALSE,
  update = FALSE,
  ...
) <- value
```

Arguments

`object`	A data frame or a lib_df object representing the original version.
`revision`	The updated version of 'object' to be compared.
`key`	A character value indicating the column used as identifier. This variable have to be in both versions otherwise this function will retrieve an error.
`delete, add, update`	A character value indicating whether the action should be carried out. If all are 'FALSE', this function will just report differences as done by compare_df.
`...`	Further arguments passed among methods.
`value`	The updated version of 'object' in the replace methods.

Value

Either an invisible output with a print in the console or an updated object of class lib_df.

Examples

```
# modifying the data set iris
data(iris)
iris$id <- 1:nrow(iris) # ID column added

# rows to add using mean values per species
iris_mod <- aggregate(cbind(Sepal.Length, Sepal.Width, Petal.Length,
    Petal.Width) ~ Species, data = iris, FUN = mean)
iris_mod$id <- (1:nrow(iris_mod)) + nrow(iris)
iris_mod <- do.call(rbind, list(iris, iris_mod[ , colnames(iris)]))

# delete some entries
iris_mod <- iris_mod[-c(15, 75, 105, 145), ]

# modify entries
iris_mod$Petal.Length[c(20, 30)] <- 0
iris_mod$Petal.Width[c(20, 50)] <- 0

# just a comparison
update(iris, iris_mod, key = "id")

# do update
iris <- update(iris, iris_mod, key = "id", delete = TRUE, add = TRUE,
    update = TRUE)
```

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write_bib *Write BibTeX Files*

Description

BibTeX databases can be created from data frames, interacting with Postgres databases.

Usage

```
write_bib(x, ...)

## S3 method for class 'lib_df'
write_bib(x, file, encoding = "UTF-8", ...)
```

Arguments

x	A data frame with bibliographic entries.
...	Further arguments passed to file.
file	A character value with the path and the name of the file to be written.
encoding	Character value with the encoding (passed to file).

Value

A bibtex file.

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