Package: biblio (via r-universe)

October 11, 2026

Version 0.0.12

Encoding UTF-8

Title Interacting with BibTeX Databases

Depends R(>= 4.1)

Imports methods, rcrossref, stringr, tools, utils, yamlme

Suggests covr, devtools, rmarkdown, testthat

LazyData true

SystemRequirements pandoc (>= 1.14) - http://pandoc.org

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

License GPL (>= 2)

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

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

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2

Config/pak/sysreqs cmake make libicu-dev libuv1-dev libxml2-dev libssl-dev zlib1g-dev

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

Date/Publication 2025-09-11 06:32:27 UTC

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

RemoteRef HEAD

RemoteSha e15582cb064d6063d00ced5efa91fd4c8b668874

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`as` *Coerce 'lib_df' objects*

Description

Coercion 'lib_df' objects.

Arguments

`x`	An object to be coerced.

Examples

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

# Convert lib_df to data frame
as(Refs[1:5, ], "data.frame")

# Convert lib_df to bibentry
as(Refs[1:5, ], "bibentry")
```

`bib2bibentry` *Convert lib_df to bibentry*

Description

Conversion method for `lib_df` objects into `bibentry`.

Usage

```
bib2bibentry(x, ...)

## S3 method for class 'lib_df'
bib2bibentry(x, ...)
```

Arguments

x	A lib_df object to be converted.
...	Further arguments passed among methods (not yet in use).

Value

An bibentry object.

Examples

```
## Read installed electronic library
Bib <- read_bib(x = file.path(path.package("biblio"),
        "LuebertPliscoff.bib"))

## Convert the first five entries
bib2bibentry(Bib[1:5, ])
```

---

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.

---

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 (old) reference data frame.
y	The updated (new) 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)
```

---

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 `yamlme::read_rmd()`. If the character vector is the name of a Rmd or a Quarto document, `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

```
## Screen for citations in installed document
cited_refs <- detect_keys(file.path(path.package("biblio"), "document.Rmd"))
cited_refs
```

---

doi2bib *Downloading bibliogrphic references from DOIs*

Description

Retrieving bibliographic entries from Crossref by DOIs. This function is a wrapper for `rcrossref::cr_cn()`.

Usage

```
doi2bib(x, ...)
```

Arguments

x	A character vector including DOI identifiers.
...	Further arguments (not yet used).

Value

The output is an object of class lib_df.

Examples

```
## Retrieve bibliographic entries for two publications
dois <- c("10.1111/1748-5967.12330",
    "10.1016/j.envsci.2019.03.017")

bibrefs <- doi2bib(dois)
bibrefs
```

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, maxsum = 4, ...)

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

Arguments

x	An object of class 'lib_df'.
maxsum	An integer value indicating the number of entries to be displayed in the printed output.
...	Further arguments passed among methods.

Value

A print in the console.

Author(s)

Miguel Alvarez

Examples

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

print(Refs, maxsum = 10)
```

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	A single character value with the path to a BibTeX file. Alternativelly it can be a character vector containing the lines of a BibTeX library, for instance after using readLines().
...	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 rmarkdown*

Description

A fast way to produce a reference list in an r-markdown 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 yamlme::write_rmd() and yamlme::render_rmd() in the working directory and displayed by browseURL().

Usage

```
reflist(x, ...)

## S3 method for class 'character'
reflist(
  x,
  output_file,
  delete_source = TRUE,
  title = "Automatic Reference List",
  output = "html_document",
  nocite = "'@*'",
  urlcolor = "blue",
  encoding = "UTF-8",
  ...
)

## S3 method for class 'lib_df'
reflist(x, filename, delete_source = TRUE, ...)
```

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 the yaml header in the intermediate Rmarkdown document.
output_file	A character value with the name for the written Rmarkdown file.
delete_source	A logical value indicating whether written bib file should be deleted after rendering html or not.
title, output, nocite, urlcolor	Arguments used for the yaml-header in r-markdown and passed to yamlme::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().
filename	A character value with the name for the written Rmd file, without file extension.

Value

An invisible object of class rmd_doc. A Rmd file will be written by yamlme::write_rmd() as well.

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_data *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

```
update_data(object, revision, key, ...)

## S4 method for signature 'data.frame,data.frame,character'
update_data(
  object,
  revision,
  key,
  add = FALSE,
  delete = FALSE,
  update = FALSE,
  ...
)

## S4 method for signature 'lib_df,lib_df,missing'
update_data(object, revision, key, ...)

update_data(object, key, ...) <- value

## S4 replacement method for signature 'data.frame,character,data.frame'
update_data(object, key, ...) <- value

## S4 replacement method for signature 'lib_df,missing,lib_df'
update_data(object, key, ...) <- 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.
...	Further arguments passed among methods.
delete, add, update	Logical value indicating whether the action should be carried out. If all are 'FALSE', this function will just report differences as done by compare_df.
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

```
# Adding an ID to data set iris
iris2 <- iris
iris2$id <- 1:nrow(iris2)

# rows to add using mean values per species
```

```
iris_mod <- aggregate(cbind(
  Sepal.Length, Sepal.Width, Petal.Length,
  Petal.Width
) ~ Species, data = iris2, FUN = mean)
iris_mod$id <- (1:nrow(iris_mod)) + nrow(iris2)
iris_mod <- do.call(rbind, list(iris2, iris_mod[, colnames(iris2)]))

# 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_data(iris2, iris_mod, key = "id")

# do update
iris2 <- update_data(iris2, iris_mod,
  key = "id", delete = TRUE, add = TRUE,
  update = TRUE
)
```

`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, filename, encoding = "UTF-8", ...)
```

Arguments

`x`	A data frame with bibliographic entries.
`...`	Further arguments passed to `file()`.
`filename`	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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