

Package ‘zoteR’

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Title R Interface to 'Zotero' via Better BibTeX

Version 1.0.0

Description Connects R to 'Zotero' through the 'Better BibTeX' for 'Zotero' connector <<https://retorque.re/zotero-better-bibtex/>>. Provides functions to insert in-text citations and bibliography entries directly into documents, detect citations already present in R Markdown and Quarto files, and synchronise bibliography files. Includes an 'RStudio addin' for interactive use.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.3.3

Depends R (>= 4.1.0)

Imports httr2, jsonlite, rstudioapi, clipr, yaml, tools

Suggests knitr, rmarkdown

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Author Roshan Paladugu [aut, cre]

Maintainer Roshan Paladugu <rpaladugu@sassyspace.xyz>

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zt_actions	<i>Handle bibliography or citation text</i>
------------	---

Description

These functions define what happens to the text retrieved from Zotero:

Usage

```
zt_return(text)
```

```
zt_print(text)
```

```
zt_insert(text)
```

```
zt_copy(text)
```

Arguments

text	A character string.
------	---------------------

Details

- `zt_return()` returns the text invisibly (useful in scripts).
- `zt_print()` writes the text to the console via `cat()`.
- `zt_insert()` inserts the text at the cursor position in RStudio, falling back to `zt_print()` when RStudio is not available.
- `zt_copy()` copies the text to the system clipboard.

Value

All functions return text invisibly.

Examples

```
zt_print("@doe2020")
zt_return("@doe2020")
```

zt_bib

*Fetch bibliography data for specific citation keys***Description**

Returns bibliography data for a vector of Better BibTeX citation keys.

Usage

```
zt_bib(
  keys,
  format = getOption("zoter.default.format", "biblatex"),
  library_id = getOption("zoter.default.library_id", 1L),
  .action = zt_return
)
```

Arguments

keys	A character vector of Better BibTeX citation keys.
format	Bibliography format. One of "json" (CSL-JSON; recommended), "biblatex", "bibtex", or "yaml" (CSL-YAML). Defaults to the value of <code>getOption("zoter.default.format", "biblatex")</code> .
library_id	Integer library ID. Use <code>zt_library_id()</code> to look up the ID by name. Defaults to <code>getOption("zoter.default.library_id", 1L)</code> .
.action	What to do with the result. One of <code>zt_return()</code> , <code>zt_print()</code> , <code>zt_insert()</code> , or <code>zt_copy()</code> .

Value

Bibliography text, returned according to `.action`.

Recommended format

Use "json" (CSL-JSON) unless you are using a raw TeX citation engine. R Markdown converts other formats to CSL-JSON, and the conversion is lossy for non-article reference types.

Examples

```
## Not run:
zt_bib(c("doe2020", "smith2019"), format = "json")

## End(Not run)
```

zt_bib_cayw	<i>Fetch a bibliography via cite-as-you-write</i>
-------------	---

Description

Opens the Better BibTeX CAYW picker in Zotero and returns bibliography data for the chosen items in the requested format.

Usage

```
zt_bib_cayw(
  format = getOption("zoter.default.format", "biblatex"),
  .action = zt_return
)
```

Arguments

format	Bibliography format. One of "json" (CSL-JSON; recommended), "biblatex", "bibtex", or "yaml" (CSL-YAML). Defaults to the value of <code>getOption("zoter.default.format", "biblatex")</code> .
.action	What to do with the result. See zt_return() .

Value

Bibliography text, returned according to `.action`.

Examples

```
## Not run:
zt_bib_cayw(format = "json", .action = zt_print)

## End(Not run)
```

zt_bib_path	<i>Extract the bibliography file path from a document's YAML front matter</i>
-------------	---

Description

Reads the YAML front matter of an R Markdown or Quarto document and returns the value of the bibliography field. Relative paths are resolved relative to the document's directory.

Usage

```
zt_bib_path(path_doc, encoding = "UTF-8")
```

Arguments

path_doc Path to an .Rmd or .qmd file.
 encoding File encoding passed to `readLines()`.

Value

An absolute path to the bibliography file.

zt_bib_selected	<i>Fetch bibliography for currently selected Zotero items</i>
-----------------	---

Description

Returns bibliography data for the items currently highlighted in the Zotero window.

Usage

```
zt_bib_selected(  
  format = getOption("zoter.default.format", "biblatex"),  
  .action = zt_return  
)
```

Arguments

format Bibliography format. One of "json" (CSL-JSON; recommended), "biblatex", "bibtex", or "yaml" (CSL-YAML). Defaults to the value of `getOption("zoter.default.format", "biblatex")`.

.action What to do with the result. One of `zt_return()`, `zt_print()`, `zt_insert()`, or `zt_copy()`.

Value

Bibliography text, returned according to `.action`.

Examples

```
## Not run:  
zt_bib_selected(format = "json", .action = zt_print)  
  
## End(Not run)
```

zt_cite	<i>Insert a Zotero citation using cite-as-you-write</i>
---------	---

Description

Opens the Better BibTeX cite-as-you-write (CAYW) picker in Zotero and returns or inserts the formatted citation.

Usage

```
zt_cite(format = c("pandoc", "latex", "cite"), .action = zt_return)
```

Arguments

format	Citation format. One of "pandoc" (default; produces [key]), "latex" (produces \cite{key}), or "cite" (produces \cite{key} for LaTeX documents).
.action	What to do with the result. One of <code>zt_return()</code> , <code>zt_print()</code> , <code>zt_insert()</code> , or <code>zt_copy()</code> . Defaults to <code>zt_insert()</code> when called from the RStudio addin and <code>zt_return()</code> otherwise.

Value

The citation string, returned according to .action.

Examples

```
## Not run:
# Returns citation string
zt_cite(format = "pandoc", .action = zt_return)

## End(Not run)
```

zt_detect_citations	<i>Detect pandoc-style citation keys in a document</i>
---------------------	--

Description

Scans one or more files for pandoc-style citation keys (@key) and returns a character vector of unique keys found. Text inside code chunks, inline R expressions, and URLs is intentionally excluded to avoid false positives.

Usage

```
zt_detect_citations(path = zt_knitr_input())

zt_detect_citations_text(text)
```

Arguments

path	A character vector of file paths to scan. When called inside a knitting session, defaults to <code>zt_knitr_input()</code> .
text	A character string of document text (for programmatic use).

Details

To force a key to appear in the output (e.g. for a reference you mention only in a caption), add it to an HTML comment or to the `nocite` front matter field.

Value

A character vector of unique citation keys (without the leading @).

Examples

```
tmp <- tempfile(fileext = ".Rmd")
writeLines(c(
  "See [doe2020] and @smith2019.",
  "Not this one: \\@escaped or `r 'inline'`"
), tmp)
zt_detect_citations(tmp)
unlink(tmp)
zt_detect_citations_text("See [doe2020] and @smith2019.")
```

zt_guess_citation_format

Guess the citation format from a file path

Description

Returns "latex" for .tex files and "pandoc" for everything else.

Usage

```
zt_guess_citation_format(path)
```

Arguments

path	A file path.
------	--------------

Value

A character string, either "pandoc" or "latex".

Examples

```
zt_guess_citation_format("paper.Rmd")
zt_guess_citation_format("paper.tex")
```

zt_guess_format	<i>Guess the bibliography file format from a file path</i>
-----------------	--

Description

Inspects the file extension of path and returns the corresponding Better BibTeX translator name.

Usage

```
zt_guess_format(path, dot_bib = getOption("zoter.default.bib", "biblatex"))
```

Arguments

path	A file path ending in .json, .bib, or .yaml/.yml.
dot_bib	Format to use for .bib files: "biblatex" (default) or "bibtex". Override the default with options(zoter.default.bib = "bibtex").

Value

A character string: one of "json", "biblatex", "bibtex", or "yaml".

Examples

```
zt_guess_format("refs.json")
zt_guess_format("refs.bib")
zt_guess_format("refs.yaml")
```

zt_is_running	<i>Check whether the Better BibTeX HTTP endpoint is reachable</i>
---------------	---

Description

zt_is_running() returns TRUE if Zotero is open and the Better BibTeX add-on is active, FALSE otherwise. zt_assert_running() throws an informative error if it is not.

Usage

```
zt_is_running()

zt_assert_running()
```

Value

zt_is_running() returns a single logical value. zt_assert_running() is called for its side-effect and returns NULL invisibly.

Examples

```
zt_is_running()
```

zt_knitr_input	<i>Return the current knitr input file</i>
----------------	--

Description

A thin wrapper around `knitr::current_input()` that throws an informative error when called outside a knitr session.

Usage

```
zt_knitr_input()
```

Value

The path to the current knitr input file.

zt_libraries	<i>List available Zotero libraries</i>
--------------	--

Description

Returns a data frame with the id and name of all Zotero libraries (personal library and any group libraries) accessible through Better BibTeX.

Usage

```
zt_libraries()
```

Value

A data frame with columns id (integer) and name (character).

Examples

```
## Not run:  
zt_libraries()  
  
## End(Not run)
```

zt_library_id	<i>Look up a Zotero library ID by name</i>
---------------	--

Description

Convenience wrapper around `zt_libraries()` that returns the integer ID for a named library. Useful when you need to pass `library_id` to `zt_bib()` or `zt_write_bib()` in a way that is portable across machines (where numeric IDs may differ).

Usage

```
zt_library_id(name)
```

Arguments

`name` A character vector of library names.

Value

An integer vector of library IDs, the same length as `name`. Returns `NA_integer_` for NA inputs.

Examples

```
## Not run:
zt_library_id("My Library")

## End(Not run)
```

zt_update_bib	<i>Update a bibliography file from an R Markdown / Quarto document</i>
---------------	--

Description

Detects citation keys in `path_doc`, then calls `zt_write_bib()` to refresh the bibliography file declared in the document's YAML front matter (or `path_bib` if supplied explicitly).

Usage

```
zt_update_bib(
  path_doc,
  path_bib = zt_bib_path(path_doc),
  ignore = character(),
  format = zt_guess_format(path_bib),
  library_id = getOption("zoter.default.library_id", 1L),
  overwrite = TRUE,
  filter = identity,
  quiet = FALSE
)
```

Arguments

path_doc	Path to an .Rmd or .qmd file.
path_bib	Path to the bibliography file to update. Defaults to the path declared in the document's bibliography front matter field, resolved relative to path_doc.
ignore	A character vector of keys to exclude.
format	Bibliography format (guessed from path_bib by default).
library_id	Integer library ID (see <code>zt_library_id()</code>).
overwrite	Passed to <code>zt_write_bib()</code> .
filter	Passed to <code>zt_write_bib()</code> .
quiet	Use TRUE to suppress the success message.

Value

path_bib, invisibly.

Examples

```
## Not run:
zt_update_bib("paper.Rmd")

## End(Not run)
```

zt_write_bib	<i>Write a bibliography file from Zotero citation keys</i>
--------------	--

Description

Fetches bibliography data for the given keys from Zotero and writes it to path. Intended for use in YAML front matter to keep bibliography files in sync automatically:

Usage

```
zt_write_bib(
  path,
  keys = zt_detect_citations(),
  ignore = character(),
  format = zt_guess_format(path),
  library_id = getOption("zoter.default.library_id", 1L),
  overwrite = FALSE,
  filter = identity
)
```

Arguments

path	Path to the output file. The extension determines the default format (.json → "json", .bib → "biblatex", .yaml → "yaml").
keys	A character vector of citation keys. Defaults to <code>zt_detect_citations()</code> when called inside a knitr session.
ignore	A character vector of keys to exclude from the output.
format	Bibliography format. One of "json", "biblatex", "bibtex", or "yaml". Guessed from path by default via <code>zt_guess_format()</code> .
library_id	Integer library ID (see <code>zt_library_id()</code>).
overwrite	Use TRUE to overwrite an existing file.
filter	A function applied to the raw bibliography string before writing (e.g. to sort or post-process entries).

Details

```
bibliography: "`r zoteR::zt_write_bib('refs.json', overwrite = TRUE)`"
```

Value

path, invisibly (for use in YAML front matter).

Examples

```
## Not run:  
zt_write_bib("refs.json", overwrite = TRUE)  
zt_write_bib("refs.bib", overwrite = TRUE)  
  
## End(Not run)
```

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