# Package 'texor'

December 13, 2024

Type Package

```
Version 1.5.3
Description Articles in the 'R Journal' were first authored in 'LaTeX', which performs
      admirably for 'PDF' files but is less than ideal for modern online interfaces.
      The 'texor' package does all the transitional chores and conversions necessary
      to move to the online versions.
License MIT + file LICENSE
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BugReports https://github.com/Abhi-1U/texor/issues
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```

Title Converting 'LaTeX' 'R Journal' Articles into 'RJ-web-articles'

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article\_has\_tikz

Check if article has tikz images or not

# Description

This simple utiliy function will check for tikzpicture environment

# Usage

```
article_has_tikz(article_dir)
```

# Arguments

article\_dir path to the directory which contains tex article

check\_markdown\_file 3

#### Value

TRUE if tikz image is present else FALSE

#### **Examples**

# Description

Checks if the markdown file generated is empty or not due to some pandoc related error during conversion to markdown.

#### Usage

```
check_markdown_file(article_dir)
```

#### **Arguments**

```
article_dir path to the directory which contains tex article
```

#### Value

FALSE if markdown file is corrupted/empty else TRUE

convert\_to\_markdown

convert\_to\_markdown

convert LaTeX wrapper to markdown

#### **Description**

Uses pandoc along with several lua filters found at inst/extdata/filters in texor package

## Usage

```
convert_to_markdown(
   article_dir,
   kable_tab = TRUE,
   autonumber_eq = FALSE,
   fig_in_r = TRUE
)
```

#### **Arguments**

```
article_dir path to the directory which contains tex article
kable_tab converts to kable table instead of markdown tables
autonumber_eq whether to autonumber the equations, default is FALSE
fig_in_r whether to include figures in R code chunks, default is TRUE
```

## **Details**

convert latex(wrapper) file to markdown

#### Value

creates a converted markdown file, as well as a pkg\_meta.yaml file

#### Note

pandoc (along with lua interpreter) is already installed with R-studio, hence if not using R-studio you will need to install pandoc. https://pandoc.org/installing.html

Use pandoc version greater than or equal to 3.1

Kable tables will work for simple static data, any math / code / image within any table will send the package into fallback mode (normal markdown tables) for the rest of tables in the article.

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```
rmarkdown::pandoc_version()
texor::include_style_file(your_article_path)
rebib::aggregate_bibliography(your_article_path)
texor::convert_to_markdown(your_article_path)
unlink(your_article_folder,recursive = TRUE)
```

convert\_to\_native

convert LaTeX wrapper to native pandoc AST

#### **Description**

Uses pandoc along with several lua filters found at inst/extdata/filters in texor package

#### Usage

```
convert_to_native(article_dir, autonumber_eq = FALSE)
```

# **Arguments**

```
article_dir path to the directory which contains tex article
autonumber_eq whether to autonumber the equations, default is FALSE
```

#### **Details**

```
convert latex(wrapper) file to pandoc AST
```

## Value

creates a converted native AST file, as well as a pkg\_meta.yaml file

#### Note

pandoc (along with lua interpreter) is already installed with R-studio, hence if not using R-studio you will need to install pandoc. https://pandoc.org/installing.html

Use pandoc version greater than or equal to 3.1

6 convert\_to\_png

convert\_to\_png

convert one single pdf file to png

# Description

function to invoke 'pdftools:pdf\_convert()'

This function is designed to be used internally and is called by 'texor::pdf\_to\_png(file\_dir)' function for converting individual of pdf image.

Note: The extensions in LaTeX source code will automatically be changed during pandoc conversion by a lua filter (refer: inst/extdata/image\_filter.lua)

#### Usage

```
convert_to_png(file_path, dpi = 180)
```

### Arguments

file\_path path to the pdf file

dpi Set DPI for converting PDF files. default: 180

#### Value

png file of the same

#### Note

If you find inconsistencies in the raster image generated from PDF using this function. Please update poppler utils to newer versions (possibly latest one).

copy\_other\_files 7

copy\_other\_files

Copy Supporting Documents like images, bib file, etc.

#### **Description**

Copies supporting documents like images,pdf,bib files into the output folder for building the HTML version of the R-Markdown file.

#### Usage

```
copy_other_files(from_path)
```

#### **Arguments**

from\_path

String indicating base path for the working directory

#### Value

copies dependency files into the output folder.

## **Examples**

```
article_dir <- system.file("examples/article", package = "texor")
dir.create(your_article_folder <- file.path(tempdir(), "tempdir"))
x <- file.copy(from = article_dir, to = your_article_folder,recursive = TRUE,)
your_article_path <- paste(your_article_folder,"article",sep="/")
rmarkdown::pandoc_version()
texor::include_style_file(your_article_path)
rebib::aggregate_bibliography(your_article_path)
texor::copy_other_files(your_article_path)
list.files(paste0(your_article_path,"/web/"))
unlink(your_article_folder,recursive = TRUE)</pre>
```

count\_env

count latex environments

#### **Description**

count common environments like table, figure, verbatim etc..

# Usage

```
count_env(article_dir, env_name)
```

#### **Arguments**

```
article_dir path to the directory which contains RJ article
```

env\_name name of the environment

8 count\_inline

#### Value

count of the environment, FALSE otherwise

# **Examples**

count\_inline

count inline elements

# Description

counts inline elements embedded within the latex file currently supported inlines: math (based on \$\$), code (based on \code) and Citations (based on \cite, \citealp, \cite)

# Usage

```
count_inline(article_dir, inline)
```

#### **Arguments**

```
article_dir path to the directory which contains RJ article inline name of the inline element
```

#### Value

count of the inline element, FALSE otherwise

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create\_article

Create an R Journal article with a modified template for texor.

## **Description**

Create an R Journal article with a modified template for texor.

## Usage

```
create_article(name = "test", edit = TRUE)
```

#### **Arguments**

name the name of the tex file, will default to "test" edit Opens the file for editing in RStudio/R GUI.

## **Details**

Outputs an LaTeX R Journal paper template set of files in the project directory.

find\_wrapper

find wrapper file

## **Description**

Finds a different named wrapper file for RJournal article

#### Usage

```
find_wrapper(article_dir)
```

# Arguments

article\_dir path to the directory which contains tex article

#### Value

wrapper file name or empty string if none

10 generate\_rmd

generate\_rmd

Modify Markdown to R-markdown

#### Description

generate rmarkdown file in output folder

## Usage

```
generate_rmd(article_dir, web_dir = TRUE, interactive_mode = FALSE)
```

#### **Arguments**

```
article_dir path to the directory which contains tex article
web_dir option to create a new web directory, default TRUE
interactive_mode
```

interactive mode for converting articles with options. default FALSE

#### Value

R-markdown file in the web folder

#### Note

Use pandoc version greater than or equal to 3.1

```
# Note This is a minimal example to execute this function
article_dir <- system.file("examples/article",</pre>
                 package = "texor")
dir.create(your_article_folder <- file.path(tempdir(), "tempdir2"))</pre>
x \leftarrow file.copy(from = article_dir, to = your_article_folder, recursive = TRUE,)
your_article_path <- xfun::normalize_path(paste(your_article_folder,"article",sep="/"))</pre>
texor::include_style_file(your_article_path)
rebib::aggregate_bibliography(your_article_path)
data <- texor::handle_figures(your_article_path,</pre>
                     texor::get_texfile_name(your_article_path))
texor::patch_code_env(your_article_path) # Step 4
texor::patch_table_env(your_article_path) # Step 5
texor::patch_equations(your_article_path) # Step 5.5
texor::patch_figure_env(your_article_path)
rmarkdown::pandoc_version()
texor::convert_to_markdown(your_article_path)
texor::generate_rmd(your_article_path)
unlink(your_article_folder,recursive = TRUE)
```

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```
get_journal_details get Journal details
```

# Description

get Journal details

# Usage

```
get_journal_details(article_dir)
```

# Arguments

article\_dir path to the directory which contains tex article

#### Value

journal details in an object

## **Examples**

```
article_dir <- "/home/user/documents/2022-1/2020-36/"
texor::get_journal_details(article_dir)</pre>
```

get\_md\_file\_name

get markdown file name

# Description

get markdown file name

## Usage

```
get_md_file_name(article_dir)
```

# Arguments

article\_dir path to the directory which contains tex article

#### Value

markdown file name

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#### **Examples**

get\_texfile\_name

Get the name of the tex file included within wrapper file

# Description

The wrapper file refers to an external tex file which contains the actual document content.

## Usage

```
get_texfile_name(article_dir)
```

#### Arguments

article\_dir path to the directory which contains tex article

#### Value

String name of the tex-file name

get\_wrapper\_type 13

get\_wrapper\_type

Get the name of the wrapper file in the article dir

## **Description**

This function gets the wrapper file name from the commonly named R-Journal wrapper files.

## Usage

```
get_wrapper_type(article_dir, auto_wrapper = FALSE, interactive_mode = FALSE)
```

## **Arguments**

article\_dir path to the directory which contains tex article
auto\_wrapper automatically creates a wrapper if TRUE, else asks user. default value FALSE
interactive\_mode

interactive mode for converting articles with options.

#### **Details**

Usually the R journal wrapper files are named either 1. RJwrapper.tex 2. RJwrap.tex 3. wrapper.tex

#### Value

String with name of wrapper file or empty

## **Examples**

handle\_figures

handle figures

## **Description**

handle figures

#### Usage

```
handle_figures(article_dir, file_name)
```

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#### **Arguments**

```
article_dir path to the directory which contains tex article file_name name of the LaTeX file
```

#### Value

A block of figure data for better conversion.

### **Examples**

include\_style\_file

Include Style file

#### **Description**

Includes the Metafix.sty style file

#### Usage

```
include_style_file(article_dir)
```

#### **Arguments**

```
article_dir path to the directory which contains tex article
```

## **Details**

This style file helps texor and pandoc to retain metadata and ease the conversion process.

#### Value

adds Metafix.sty file in the article\_dir also includes it in RJwrapper file.

latex\_to\_web

latex\_to\_web latex to web

### **Description**

automated function for converting a single RJarticle to web

## Usage

```
latex_to_web(
    dir,
    log_steps = TRUE,
    example = FALSE,
    auto_wrapper = TRUE,
    temp_mode = TRUE,
    web_dir = FALSE,
    interactive_mode = FALSE,
    autonumber_eq = FALSE,
    compile_rmd_in_temp = !temp_mode,
    kable_tab = TRUE,
    fig_in_r = TRUE
)
```

#### **Arguments**

directory path dir log\_steps Enable/Disable Logging of conversion steps for examples only by default keep it FALSE. example automatically creates a wrapper if TRUE, else asks user. default value TRUE auto\_wrapper temp mode will convert the document in a temporary folder and keep the original temp\_mode article untouched. default value = TRUE web\_dir option to create a new web directory, default FALSE interactive\_mode interactive mode for converting articles with options. default FALSE autonumber\_eq whether to autonumber the equations, default is FALSE compile\_rmd\_in\_temp This works only with a forked version of rjtools. kable\_tab converts to kable table instead of markdown tables whether to include figures in R code chunks, default is TRUE Not recommended fig\_in\_r to use with CRAN or github version of the rjtools package. (default FALSE)

#### Value

RJweb article document in /web folder

log\_setup

#### Note

Use pandoc version greater than or equal to 3.1

Do not set example = TRUE param when working with conversions.

example param is set TRUE in example, to conform with CRAN check restrictions.

#### **Examples**

log\_setup

texor log setup

## **Description**

a wrapper function for logger package to set up log file for logging

#### **Usage**

```
log_setup(article_dir, file_name, namespace, idx)
```

#### **Arguments**

article\_dir path to the directory which contains tex article

file\_name name of the log file
namespace namespace of log file
idx index of log level

#### Value

NULL but also creates a log file in the article\_dir

```
dir.create(your_article_folder <- file.path(tempdir(), "exampledir"))
example_files <- system.file("examples/article", package = "texor")
x <- file.copy(from = example_files,to=your_article_folder,recursive = TRUE)
your_article_path <- paste(your_article_folder,"article",sep="/")
texor::log_setup(your_article_path, "log-file.log", "texor", 2)
unlink(your_article_folder,recursive = TRUE)</pre>
```

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pandoc\_version\_check check texor pandoc compatibility

# Description

texor package requires minimum pandoc version above or equal to 3.1, hence this utility will check for the installation and version status.

# Usage

```
pandoc_version_check()
```

#### Value

```
TRUE if v \ge 3.1, else FALSE
```

## **Examples**

```
rmarkdown::pandoc_version()
texor::pandoc_version_check()
```

patch\_figure\_env

patch figure environments

# Description

This function calls the stream editor to change figure\* to figure 1. figure\*

# Usage

```
patch_figure_env(article_dir, with_alg = TRUE)
```

# Arguments

article\_dir path to the directory which contains tex article
with\_alg to include algorithm environment or not

#### Value

patches figure environments in LaTeX file and also backs up the old file before modification

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#### **Examples**

patch\_table\_env

patch table environment

## Description

function to modify env and commands in TeX using GNU sed

These are due to the pandoc's limitations and ease in conversion.

#### Usage

```
patch_table_env(article_dir)
```

# **Arguments**

article\_dir path to the directory which contains tex article

#### **Details**

changes are made to : 1. table\* environment to table environment 2. \multicolumn to \multicolumnx \multicolumnx is redefined in Metafix.sty as \renewcommand \\multicolumnx \\[ [3] \\multicolumn \\ #1 \\ c \\ #3 \\ \]

#### Value

patches table environments in LaTeX file and also backs up the old file before modification

pre\_conversion\_statistics 19

# Description

count common environments, inlines for debugging purposes

#### Usage

```
pre_conversion_statistics(article_dir, write_yaml = TRUE)
```

## **Arguments**

```
article_dir path to the directory which contains RJ article
write_yaml write to a yaml file (default = TRUE)
```

#### Value

conversion stat block with details also a yaml file if param enabled.

# Examples

produce\_html

call rmarkdown::render to generate html file

#### **Description**

call rmarkdown::render to generate html file

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#### Usage

```
produce_html(
   article_dir,
   example = FALSE,
   web_dir = TRUE,
   interactive_mode = FALSE)
```

## **Arguments**

article\_dir path to the directory which contains tex article

example only enabled for running examples for documentation and to enable export of

this function.

web\_dir option to create a new web directory, default TRUE

interactive\_mode

interactive mode for converting articles with options. default FALSE

#### Value

Renders a RJwrapper.html file in the /web folder, in example it will return TRUE

#### Note

Use pandoc version greater than or equal to 3.1

Do not set example = TRUE param when working with conversions.

example param is set TRUE in example, to conform with CRAN check restrictions.

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rnw\_generate\_rmd

Modify Markdown from Sweave to R-markdown

#### **Description**

generate rmarkdown file in output folder

## Usage

```
rnw_generate_rmd(
  article_dir,
  web_dir = TRUE,
  interactive_mode = FALSE,
  output_format,
  autonumber_eq = FALSE,
  autonumber_sec = TRUE,
  algorithm_render = FALSE
)
```

## **Arguments**

```
article_dir path to the directory which contains tex article

web_dir option to create a new web directory, default TRUE

interactive_mode interactive mode for converting articles with options. default FALSE

output_format knit output type for the RMarkdown file, options for "bookdown", "biocstyle", "litedown"

autonumber_eq whether to autonumber the equations, default is FALSE

autonumber_sec algorithm_render

Enable to include algorithms with pseudocode.js, default is FALSE optional is
```

#### Value

R-markdown file in the web folder

#### Note

Use pandoc version greater than or equal to 3.1

**TRUE** 

```
# Note This is a minimal example to execute this function
# Please refer to texor::rnw_to_rmd for a detailed example
```

rnw\_to\_rmd

rnw\_to\_rmd

Sweave to RMarkdown

#### **Description**

automated function for converting a single Sweave file to R Markdown file

# Usage

```
rnw_to_rmd(
  input_file,
  output_format,
  clean_up = TRUE,
  autonumber_eq = FALSE,
  autonumber_sec = TRUE,
  suppress_package_startup_message = FALSE,
  kable_tab = TRUE,
  fig_in_r = TRUE,
  algorithm_render = FALSE
)
```

#### **Arguments**

input\_file input Sweave file path output\_format knit output type for the RMarkdown file options for "bookdown", "biocstyle", "litedown" clean\_up whether to clean up the intermediate files, default is TRUE whether to autonumber the equations, default is FALSE autonumber\_eq autonumber\_sec whether to autonumber the sections, default is TRUE suppress\_package\_startup\_message whether to suppress the package startup message, default is FALSE converts to kable table instead of markdown tables kable\_tab fig\_in\_r whether to include figures in R code chunks, default is TRUE algorithm\_render Enable to include algorithms with pseudocode.js, default is FALSE optional is **TRUE** 

#### Value

True if R Markdown file successfully generated in the same folder

#### Note

Use pandoc version greater than or equal to 3.1

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#### **Examples**

stream\_editor

stream editor

#### **Description**

R equivalent of GNU-sed

## Usage

```
stream_editor(raw_lines, pattern, target, replacement)
```

## **Arguments**

raw\_lines a vector of readLines from the file

pattern a regex pattern to match target target string to be replaced

replacement replacement string to be substituted

#### Value

```
raw_lines: modified vector of lines
```

```
 example\_string <- "\target{}" \\ texor::stream\_editor(example\_string,"\target{\\}", "\\\target", "\\hit") \\
```

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log messages for various categories

## **Description**

a wrapper function for logging different types of log entries

# Usage

```
texor_log(message, category, idx)
```

# **Arguments**

message message to be sent

category category of the log message

idx index of log level

#### Value

NUll, but also appends message to the log file in article\_dir

```
dir.create(your_article_folder <- file.path(tempdir(), "exampledir"))
example_files <- system.file("examples/article", package = "texor")
x <- file.copy(from = example_files,to=your_article_folder,recursive = TRUE)
your_article_path <- paste(your_article_folder,"article",sep="/")
texor::log_setup(your_article_path, "log-file.log", "texor" , 2)
texor::texor_log("Hello", "INFO", 2)
cat(readLines(paste(your_article_path,"/log-file.log",sep="")),sep="\n")
unlink(your_article_folder,recursive = TRUE)</pre>
```

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