

Package ‘reprex’

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Title Prepare Reproducible Example Code via the Clipboard

Version 0.3.0

Description Convenience wrapper that uses the 'rmarkdown' package to render small snippets of code to target formats that include both code and output. The goal is to encourage the sharing of small, reproducible, and runnable examples on code-oriented websites, such as <https://stackoverflow.com> and <https://github.com>, or in email. The user's clipboard is the default source of input code and the default target for rendered output. 'reprex' also extracts clean, runnable R code from various common formats, such as copy/paste from an R session.

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URL <https://reprex.tidyverse.org>,
<https://github.com/tidyverse/reprex#readme>

BugReports <https://github.com/tidyverse/reprex/issues>

Depends R (>= 3.1)

Imports callr (>= 2.0.0), clipr (>= 0.4.0), fs, rlang, rmarkdown,
utils, whisker, withr

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VignetteBuilder knitr

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SystemRequirements pandoc (>= 1.12.3) - <http://pandoc.org>

NeedsCompilation no

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opt	<i>Consult an option, then default</i>
-----	--

Description

Arguments that appear like so in the usage:

```
f(..., arg = opt(DEFAULT), ...)
```

get their value according to this logic:

```
user-specified value or, if not given,
  getOption("reprex.arg") or if does not exist,
  DEFAULT
```

It's shorthand for:

```
f(..., arg = getOption("reprex.arg", DEFAULT), ...)
```

This is not an exported function and should not be called directly.

Details

Many of the arguments of `reprex()` use `opt()`. If you don't like the official defaults, override them in your `.Rprofile`. Here's an example for someone who dislikes the "Created by ..." string, always wants session info, prefers to restyle their code, uses a winky face comment string, and likes the tidyverse startup message.

```
options(
  reprex.advertise = FALSE,
  reprex.si = TRUE,
  reprex.style = TRUE,
  reprex.comment = "#;-)",
  reprex.tidyverse_quiet = FALSE
)
```

reprex	<i>Render a reprex</i>
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Description

Run a bit of R code using `rmarkdown::render()` and write the rendered result to user's clipboard. The goal is to make it easy to share a small reproducible example ("reprex"), e.g., in a GitHub issue. Reprex source can be

- read from clipboard
- read from current selection or active document in RStudio (with `reprex_addin()`)
- provided directly as expression, character vector, or string
- read from file

reprex can also be used for syntax highlighting (with or without rendering); see below for more.

Usage

```
reprex(x = NULL, input = NULL, outfile = NULL, venue = c("gh",
  "so", "ds", "r", "rtf", "html"), render = TRUE, advertise = NULL,
  si = opt(FALSE), style = opt(FALSE), show = opt(TRUE),
  comment = opt("#>"), tidyverse_quiet = opt(TRUE),
  std_out_err = opt(FALSE))
```

Arguments

- | | |
|---------|--|
| x | An expression. If not given, <code>reprex()</code> looks for code in <code>input</code> or on the clipboard, in that order. |
| input | Character. If has length one and lacks a terminating newline, interpreted as the path to a file containing reprex code. Otherwise, assumed to hold reprex code as character vector. |
| outfile | Optional basename for output files. When <code>NULL</code> (default), reprex writes to temp files below the session temp directory. If <code>outfile = "foo"</code> , expect output files in current working directory, like <code>foo_reprex.R</code> , <code>foo_reprex.md</code> , and, if <code>venue = "r"</code> , <code>foo_rendered.R</code> . If <code>outfile = NA</code> , expect output files in a location and with basename derived from <code>input</code> , if sensible, or in current working directory with basename derived from <code>tempfile()</code> otherwise. |
| venue | Character. Must be one of the following (case insensitive): <ul style="list-style-type: none"> • "gh" for GitHub-Flavored Markdown, the default • "so" for Stack Overflow Markdown • "ds" for Discourse, e.g., community.rstudio.com. Note: this is currently just an alias for "gh"! • "r" for a runnable R script, with commented output interleaved • "rtf" for Rich Text Format (not supported for un-reprexing) |

- "html" for an HTML fragment suitable for inclusion in a larger HTML document (not supported for un-reprexing)

render	Logical. Whether to call <code>rmarkdown::render()</code> on the templated reprex, i.e. whether to actually run the code. Defaults to TRUE. Exists primarily for the sake of internal testing.
advertise	Logical. Whether to include a footer that describes when and how the reprex was created. If unspecified, the option <code>reprex.advertise</code> is consulted and, if that is not defined, default is TRUE for venues "gh", "so", "ds", "html" and FALSE for "r" and "rtf".
si	Logical. Whether to include <code>devtools::session_info()</code> , if available, or <code>sessionInfo()</code> at the end of the reprex. When venue is "gh" or "ds", the session info is wrapped in a collapsible details tag. Read more about <code>opt()</code> .
style	Logical. Whether to style code with <code>styler::style_text()</code> . Read more about <code>opt()</code> .
show	Logical. Whether to show rendered output in a viewer (RStudio or browser). Read more about <code>opt()</code> .
comment	Character. Prefix with which to comment out output, defaults to "#>". Read more about <code>opt()</code> .
tidyverse_quiet	Logical. Sets the option <code>tidyverse.quiet</code> , which suppresses (TRUE, the default) or includes (FALSE) the startup message for the tidyverse package. Read more about <code>opt()</code> .
std_out_err	Logical. Whether to append a section for output sent to stdout and stderr by the reprex rendering process. This can be necessary to reveal output if the reprex spawns child processes or <code>system()</code> calls. Note this cannot be properly interleaved with output from the main R process, nor is there any guarantee that the lines from standard output and standard error are in correct chronological order. See <code>callr::r_safe()</code> for more. Read more about <code>opt()</code> .

Value

Character vector of rendered reprex, invisibly.

Details

The usual "code + commented output" is returned invisibly, put on the clipboard, and written to file. An HTML preview displays in RStudio's Viewer pane, if available, or in the default browser, otherwise. Leading "> " prompts, are stripped from the input code. Read more at <https://reprex.tidyverse.org/>.

reprex sets specific **knitr options**:

- Chunk options default to `collapse = TRUE`, `comment = "#>"`, `error = TRUE`. Note that `error = TRUE`, because a common use case is bug reporting.
- reprex also sets knitr's `upload.fun`. It defaults to `knitr::imgur_upload()` so figures produced by the reprex appear properly on GitHub, Stack Overflow, or Discourse. Note that this function requires the packages `httr` & `xml2` or `RCurl` & `XML`, depending on your knitr version. When `venue = "r"`, `upload.fun` is set to `identity`, so that figures remain local. In

that case, you may also want to set `outfile`. You can supplement or override these options with special comments in your code (see examples).

Syntax highlighting

A secondary use case for `reprex` is to produce syntax highlighted code snippets, with or without rendering, to paste into presentation software, such as Keynote or PowerPoint. Use `venue = "rtf"`.

This feature is experimental and currently rather limited. It probably only works on macOS and requires the installation of the `highlight` command line tool, which can be installed via [homebrew](#). This venue is discussed in [an article](#)

Examples

```
## Not run:
# put some code like this on the clipboard
# (y <- 1:4)
# mean(y)
reprex()

# provide code as an expression
reprex(rbinom(3, size = 10, prob = 0.5))
reprex({y <- 1:4; mean(y)})
reprex({y <- 1:4; mean(y)}, style = TRUE)

# note that you can include newlines in those brackets
# in fact, that is often a good idea
reprex({
  x <- 1:4
  y <- 2:5
  x + y
})

## provide code via character vector
reprex(input = c("x <- 1:4", "y <- 2:5", "x + y"))

## if just one line, terminate with '\n'
reprex(input = "rnorm(3)\n")

## customize the output comment prefix
reprex(rbinom(3, size = 10, prob = 0.5), comment = "#;-)")

# override a default chunk option
reprex({
  #+ setup, include = FALSE
  knitr::opts_chunk$set(collapse = FALSE)

  #+ actual-reprex-code
  (y <- 1:4)
  median(y)
})

# add prose, use general markdown formatting
```

```

reprex({
  #' # A Big Heading
  #'
  #' Look at my cute example. I love the
  #' [reprex](https://github.com/tidyverse/reprex#readme) package!
  y <- 1:4
  mean(y)
}, advertise = FALSE)

# read reprex from file
tmp <- file.path(tempdir(), "foofy.R")
writeLines(c("x <- 1:4", "mean(x)"), tmp)
reprex(input = tmp)

# read from file and write to similarly-named outfiles
reprex(input = tmp, outfile = NA)
list.files(dirname(tmp), pattern = "foofy")

# clean up
file.remove(list.files(dirname(tmp), pattern = "foofy", full.names = TRUE))

# write rendered reprex to file
tmp <- file.path(tempdir(), "foofy")
reprex({
  x <- 1:4
  y <- 2:5
  x + y
}, outfile = tmp)
list.files(dirname(tmp), pattern = "foofy")

# clean up
file.remove(list.files(dirname(tmp), pattern = "foofy", full.names = TRUE))

# write reprex to file AND keep figure local too, i.e. don't post to imgur
tmp <- file.path(tempdir(), "foofy")
reprex({
  #+ setup, include = FALSE
  knitr::opts_knit$set(upload.fun = identity)

  #+ actual-reprex-code
  #' Some prose
  ## regular comment
  (x <- 1:4)
  median(x)
  plot(x)
}, outfile = tmp)
list.files(dirname(tmp), pattern = "foofy")

# clean up
unlink(
  list.files(dirname(tmp), pattern = "foofy", full.names = TRUE),
  recursive = TRUE
)

```

```
## target venue = Stack Overflow
## https://stackoverflow.com/editing-help
ret <- reprex({
  x <- 1:4
  y <- 2:5
  x + y
}, venue = "so")
ret

## target venue = R, also good for email or Slack snippets
ret <- reprex({
  x <- 1:4
  y <- 2:5
  x + y
}, venue = "R")
ret

## target venue = html
ret <- reprex({
  x <- 1:4
  y <- 2:5
  x + y
}, venue = "html")
ret

## include prompt and don't comment the output
## use this when you want to make your code hard to execute :)
reprex({
  #+ setup, include = FALSE
  knitr::opts_chunk$set(comment = NA, prompt = TRUE)

  #+ actual-reprex-code
  x <- 1:4
  y <- 2:5
  x + y
})

## leading prompts are stripped from source
reprex(input = c("> x <- 1:3", "> median(x)"))

## End(Not run)
```

reprex_addin

Render a reprex

Description

reprex_addin() opens an **RStudio gadget** and **addin** that allows you to say where the reprex source

is (clipboard? current selection? active file? other file?) and to control a few other arguments. Appears as "Render reprex" in the RStudio Addins menu.

`reprex_selection()` is an **addin** that reprexes the current selection, optionally customised by options. Appears as "Reprex selection" in the RStudio Addins menu. Heavy users might want to [create a keyboard shortcut](#).

Usage

```
reprex_addin()
```

```
reprex_selection(venue = getOption("reprex.venue", "gh"))
```

Arguments

venue	Character. Must be one of the following (case insensitive): <ul style="list-style-type: none"> • "gh" for GitHub-Flavored Markdown, the default • "so" for Stack Overflow Markdown • "ds" for Discourse, e.g., community.rstudio.com. Note: this is currently just an alias for "gh"! • "r" for a runnable R script, with commented output interleaved • "rtf" for Rich Text Format (not supported for un-reprexing) • "html" for an HTML fragment suitable for inclusion in a larger HTML document (not supported for un-reprexing)
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un-reprex

Un-render a reprex

Description

Recover clean, runnable code from a reprex captured in the wild and write it to user's clipboard. The code is also returned invisibly and optionally written to file. Three different functions address various forms of wild-caught reprex.

Usage

```
reprex_invert(input = NULL, outfile = NULL, venue = c("gh", "so",
  "ds", "r"), comment = opt("#>"))
```

```
reprex_clean(input = NULL, outfile = NULL, comment = opt("#>"))
```

```
reprex_rescue(input = NULL, outfile = NULL,
  prompt = getOption("prompt"), continue = getOption("continue"))
```


Arguments

input	Character. If has length one and lacks a terminating newline, interpreted as the path to a file containing repx code. Otherwise, assumed to hold repx code as character vector. If not provided, the clipboard is consulted for input.
outfile	Optional basename for output file. When NULL, no file is left behind. If outfile = "foo", expect an output file in current working directory named foo_clean.R. If outfile = NA, expect on output file in a location and with basename derived from input, if a path, or in current working directory with basename derived from <code>tempfile()</code> otherwise.
venue	Character. Must be one of the following (case insensitive): <ul style="list-style-type: none"> • "gh" for GitHub-Flavored Markdown, the default • "so" for Stack Overflow Markdown • "ds" for Discourse, e.g., community.rstudio.com. Note: this is currently just an alias for "gh"! • "r" for a runnable R script, with commented output interleaved • "rtf" for Rich Text Format (not supported for un-reprexing) • "html" for an HTML fragment suitable for inclusion in a larger HTML document (not supported for un-reprexing)
comment	regular expression that matches commented output lines
prompt	character, the prompt at the start of R commands
continue	character, the prompt for continuation lines

Value

Character vector holding just the clean R code, invisibly

Functions

- `reprex_invert`: Attempts to reverse the effect of `reprex()`. When venue = "r", this just becomes a wrapper around `reprex_clean()`.
- `reprex_clean`: Assumes R code is top-level, possibly interleaved with commented output, e.g., a displayed repx copied from GitHub or the direct output of `reprex(..., venue = "R")`. This function removes commented output.
- `reprex_rescue`: Assumes R code lines start with a prompt and that printed output is top-level, e.g., what you'd get from copy/paste from the R Console. Removes lines of output and strips prompts from lines holding R commands.

Examples

```
## Not run:
## a rendered repx can be inverted, at least approximately
tmp_in <- file.path(tempdir(), "roundtrip-input")
x <- reprex({
  #' Some text
  #+ chunk-label-and-options-cannot-be-recovered, message = TRUE
  (x <- 1:4)
```

```

#' More text
y <- 2:5
x + y
}, show = FALSE, advertise = FALSE, outfile = tmp_in)
tmp_out <- file.path(tempdir(), "roundtrip-output")
x <- reprex_invert(x, outfile = tmp_out)
x

# clean up
file.remove(
  list.files(dirname(tmp_in), pattern = "roundtrip", full.names = TRUE)
)

## End(Not run)
## Not run:
## a displayed reprex can be cleaned of commented output
tmp <- file.path(tempdir(), "commented-code")
x <- c(
  "## a regular comment, which is retained",
  "(x <- 1:4)",
  "#> [1] 1 2 3 4",
  "median(x)",
  "#> [1] 2.5"
)
out <- reprex_clean(x, outfile = tmp)
out

# clean up
file.remove(
  list.files(dirname(tmp), pattern = "commented-code", full.names = TRUE)
)

## round trip with reprex(..., venue = "R")
code_in <- c("x <- rnorm(2)", "min(x)")
res <- reprex(input = code_in, venue = "R", advertise = FALSE)
res
(code_out <- reprex_clean(res))
identical(code_in, code_out)

## End(Not run)
## Not run:
## rescue a reprex that was copied from a live R session
tmp <- file.path(tempdir(), "live-transcript")
x <- c(
  "> ## a regular comment, which is retained",
  "> (x <- 1:4)",
  "[1] 1 2 3 4",
  "> median(x)",
  "[1] 2.5"
)
out <- reprex_rescue(x, outfile = tmp)
out

```

```
# clean up
file.remove(
  list.files(dirname(tmp),pattern = "live-transcript", full.names = TRUE)
)

## End(Not run)
```

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