

# Package ‘roclang’

May 15, 2022

**Title** Functions for Diffusing Function Documentations into 'Roxygen' Comments

**Version** 0.2.0

**Maintainer** Xiurui Zhu <zxr6@163.com>

**Description** Efficient diffusing of content across function documentations. Sections, parameters or dot parameters are extracted from function documentations and turned into valid Rd character strings, which are ready to diffuse into the 'roxygen' comments of another function by inserting inline code.

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**Suggests** covr, testthat (>= 3.0.0)

**Config/testthat/edition** 3

**Encoding** UTF-8

**RoxygenNote** 7.2.0

**Depends** R (>= 4.0.0)

**Imports** dplyr (>= 1.0.2), tidyr (>= 1.1.2), purrr (>= 0.3.4), tibble (>= 3.0.4), stringr (>= 1.4.0), magrittr (>= 2.0.1), rlang (>= 0.4.10), roxygen2 (>= 7.1.1), methods (>= 4.0.0), utils (>= 4.0.0), rex (>= 1.2.0)

**URL** <https://github.com/zhuxr11/roclang>

**BugReports** <https://github.com/zhuxr11/roclang/issues>

**NeedsCompilation** no

**Author** Xiurui Zhu [aut, cre]

**Repository** CRAN

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## R topics documented:

roclang-package . . . . .	2
extract_roc_text . . . . .	2
roc_eval_text . . . . .	5

<b>Index</b>	<b>7</b>
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roclang-package	<i>roclang: A package for diffusing function documentations into 'roxygen' comments</i>
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### Description

The 'roclang' package facilitates efficient diffusing of content across function documentations. Sections, parameters or dot parameters are extracted from function documentations and turned into valid Rd character strings, which are ready to diffuse into the 'roxygen' comments of another function by inserting inline code.

### Functions

- Text extraction and manipulation function: [extract\\_roc\\_text](#).
- Rd evaluation and compilation function: [roc\\_eval\\_text](#).

### Note

Change log:

- 0.1.1 Xiurui Zhu - Initiate the document.

### Author(s)

Xiurui Zhu

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extract_roc_text	<i>Extract a section, parameter or set of dot-parameters from a function documentation</i>
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### Description

`extract_roc_text` cites sections or parameters from a function documentation in the syntax of `@inherit`, `@inheritSection`, `@inheritParams` or `@inheritDotParams` tag from [roxygen2](#) package. See details about how to use this function.

### Usage

```
extract_roc_text(  
  fun,  
  type = c("general", "section", "param", "dot_params"),  
  select = NULL,  
  capitalize = NA  
)
```

**Arguments**

fun	Function or character (of length 1L) indicating function name.										
type	Type of extraction. Please choose one from the following table according to the @tag you would otherwise use if you would like to inherit the section, parameter or set of dot-parameters as a whole: <table data-bbox="552 478 1071 640"> <thead> <tr> <th>@tag you would use</th> <th>type you should choose</th> </tr> </thead> <tbody> <tr> <td>@inherit</td> <td>"general"</td> </tr> <tr> <td>@inheritSection</td> <td>"section"</td> </tr> <tr> <td>@inheritParams</td> <td>"param"</td> </tr> <tr> <td>@inheritDotParams</td> <td>"dot_params"</td> </tr> </tbody> </table>	@tag you would use	type you should choose	@inherit	"general"	@inheritSection	"section"	@inheritParams	"param"	@inheritDotParams	"dot_params"
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@inherit	"general"										
@inheritSection	"section"										
@inheritParams	"param"										
@inheritDotParams	"dot_params"										
select	Selection of extraction based on type. <table data-bbox="516 751 1421 1081"> <tr> <td>type = "general"</td> <td>Character (of length 1L) indicating the section to extract</td> </tr> <tr> <td>type = "section"</td> <td>Character (of length 1L) indicating the section title to extract</td> </tr> <tr> <td>type = "param"</td> <td>Character (of length 1L) indicating the name of parameter to extract</td> </tr> <tr> <td>type = "dot_params"</td> <td>Character (of length 1L) or character vector to add or remove (with "-") parameters as @inheritDotParams; if character vector provided, the elements are concatenated with spaces just as @inheritDotParams syntax, e.g. "x y" to inherit two parameters, "-z" to remove a parameter or c("-x", "-y") to remove two parameters</td> </tr> </table>	type = "general"	Character (of length 1L) indicating the section to extract	type = "section"	Character (of length 1L) indicating the section title to extract	type = "param"	Character (of length 1L) indicating the name of parameter to extract	type = "dot_params"	Character (of length 1L) or character vector to add or remove (with "-") parameters as @inheritDotParams; if character vector provided, the elements are concatenated with spaces just as @inheritDotParams syntax, e.g. "x y" to inherit two parameters, "-z" to remove a parameter or c("-x", "-y") to remove two parameters		
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capitalize	Logical (of length 1L) indicating whether the first letter of the return should be capitalized. Default to capitalize = NA, in which case the first letter of the return is left as is.										

**Details**

To diffuse the function output into [roxygen2](#) comments, one may write the function documentation with inline code like this:

```
#' Diffusion of function documentation with inline code
#'
#' @return Same as \code{\link[stats]{lm}}:
#' `r extract_roc_text(stats::lm, type = "general", select = "return")`
my_fun <- function() {}
```

or with code block like this:

```
#' Diffusion of function documentation with code block
#'
#' @param lm_arg Named list of
#' ```{r}
#' extract_roc_text(stats::lm,
#'                   type = "dot_params",
```

```
#'           select = c("-formula", "-data"),
#'           capitalize = FALSE)
#' ` ` `
my_fun <- function(lm_arg) {}
```

### Value

Character (of length 1L) as a valid Rd character string to diffuse into [roxygen2](#) comments.

### Note

Change log:

- 0.1.0 Xiurui Zhu - Initiate the function.
- 0.1.1 Xiurui Zhu - Change the default of `capitalize` from `TRUE` to `NA`.
- 0.1.1 Xiurui Zhu - Improve code security in evaluating the formal arguments of `fun`.
- 0.2.0 Xiurui Zhu - Make changes for `roxygen2 > 7.1.2` while keeping compatibility.

### Author(s)

Xiurui Zhu

### Examples

```
# Inherit a standard section, and leave the first letter as is
cat(
  extract_roc_text(stats::lm,
    type = "general",
    select = "description",
    capitalize = NA)
)

# Inherit a self-defined section, and capitalize the first letter
cat(
  extract_roc_text(stats::lm,
    type = "section",
    select = "Using time series",
    capitalize = TRUE)
)

# Inherit a parameter, and diffuse it into text
cat(
  paste0(
    "Here is the `formula` argument of `stats::lm`, defined as: ",
    extract_roc_text(stats::lm,
      type = "param",
      select = "formula",
      capitalize = FALSE)
  )
)
```

```
# Inherit a set of dot params, and diffuse it into text
cat(
  paste0(
    "`lm_arg` is a named list of ",
    extract_roc_text(stats::lm,
                     type = "dot_params",
                     select = c("-formula", "-data"),
                     capitalize = FALSE)
  )
)
```

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roc\_eval\_text

*Generate Rd from text with evaluated inline code and code blocks*

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## Description

roc\_eval\_text is an upgraded version of [roc\\_proc\\_text](#) that evaluates inline and block code before generating Rd.

## Usage

```
roc_eval_text(roclet, input)
```

## Arguments

roclet	Name of roclet to use for processing.
input	Source string

## Value

List with names as fun\_name.Rd, where each element is the [RoxyTopic](#) for the corresponding function, same as the return of [roc\\_proc\\_text](#).

## Note

Change log:

- 0.1.0 Xiurui Zhu - Initiate the function.

## Author(s)

Xiurui Zhu

**Examples**

```
# Formulate a text version of a function with documentation
fun_text <- '
#\` \\code{iris} is a `r nrow(iris)`-row matrix.
#\`
#\` \\code{iris} matrix has
#\` ``{r results="hold"}```
#\` ncol(iris)
#\` ``
#\` columns.
print_iris <- function() iris
`

# Parse the 'roxygen' comments to Rd documentation
roc_eval_text(roxygen2::rd_roclet(), fun_text)[[1L]]
```

# Index

`extract_roc_text`, [2](#), [2](#)

`roc_eval_text`, [2](#), [5](#)

`roc_proc_text`, [5](#)

`roclang` (`roclang-package`), [2](#)

`roclang-package`, [2](#)

`roxygen2`, [2-4](#)

`RoxyTopic`, [5](#)