Package 'functiondepends'

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Type Package

Title Find Functions and their Dependencies

Version 0.2.3

Description Find functions in an unstructured directory and explore their dependencies. Sourcing of R source files is performed without side-effects: from R scripts that have executable code and function definitions only functions are sourced.

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Encoding UTF-8

Suggests testthat, covr, knitr, rmarkdown, ggplot2, igraph

Imports dplyr (>= 1.0.1), tidyr (>= 1.1.1), stringr (>= 1.4.0), purrr (>= 0.3.4), magrittr (>= 1.5), tibble (>= 3.0.3), tidyselect (>= 1.1.0)

RoxygenNote 7.1.1

VignetteBuilder knitr

Depends R (>= 2.10)

NeedsCompilation no

Author Jakub Sobolewski [aut, cre]

Maintainer Jakub Sobolewski <jakupsob@gmail.com>

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`find_dependencies` *Find dependencies*

Description

This function finds function calls inside a function with given name. Be aware that any variable that has a name that overwrites a function name will be recognised as a function call.

Usage

```
find_dependencies(
  function_name,
  envir = .GlobalEnv,
  in_envir = TRUE,
  add_info = FALSE
)
```

Arguments

`function_name`	Character, name of function
`envir`	Environment in which to search for function. Deafult is `.GlobalEnv`
`in_envir`	Logical, whether to return only functions that are loaded into `envir`
`add_info`	Logical, whether to add list column with line numbers of given function call in function body and a list column with context of said calls. Default is `FALSE`.

Value

A tibble with columns: - Source: character, name of function called inside ‘Target‘ - SourceRep: integer, number of times ‘Source‘ is called - SourceNamespace: character, name of namespace from which the function comes, if a function is defined in multiple namespaces then it is a vector. If function is user defined ‘Namespace‘ is NA. - SourcePosition: optional, integer list with positions of ‘Source‘ calls in body - SouceContext: optional, character list with lines of code with calls of ‘Source‘ - Target: character, name of inspected function - TargetInDegree: integer, number of function calls inside of function body

`find_functions` *Functions in path*

Description

Parses files in given path. It searches for functions and loads them. Is safe for use with scripts as it doesn’t source the whole file, just functions. There are no side-effects to sourcing .R files.

Usage

```
find_functions(
  path,
  envir = new.env(),
  recursive = TRUE,
  separate_path = FALSE
)
```

Arguments

path	Character, path to folder
envir	Environment to source loaded functions into
recursive	Logical, whether to search files recursively
separate_path	Logical, whether to split path into hierarchy of directories. Produces multiple character columns with 'Level' prefix.

Value

A tibble with character columns indicating path to source files and names of functions defined in them.

Examples

```
path <- file.path(tempdir(), "find_functions_example")
dir.create(path, showWarnings = FALSE)
code <- "
add <- function(x, y) {
  x + y
}
add_one = function(x) {
  add(x, 1)
}
assign('add_two', function(x) {
  add(x, 2)
})
"
write(code, file.path(path, "code.R"))
find_functions(path)
```

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