

Package ‘rprojroot’

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Title Finding Files in Project Subdirectories

Version 2.0.4

Description Robust, reliable and flexible paths to files below a project root. The 'root' of a project is defined as a directory that matches a certain criterion, e.g., it contains a certain regular file.

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URL <https://rprojroot.r-lib.org/>, <https://github.com/r-lib/rprojroot>

BugReports <https://github.com/r-lib/rprojroot/issues>

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Author Kirill Müller [aut, cre] (<<https://orcid.org/0000-0002-1416-3412>>)

Maintainer Kirill Müller <kirill@cynkra.com>

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rprojroot-package *rprojroot: Finding Files in Project Subdirectories*

Description

Robust, reliable and flexible paths to files below a project root. The 'root' of a project is defined as a directory that matches a certain criterion, e.g., it contains a certain regular file.

Details

See the "Value" section in `root_criterion()` for documentation of root criterion objects, and [criteria](#) for useful predefined root criteria.

Author(s)

Maintainer: Kirill Müller <kirill@cynkra.com> ([ORCID](#))

See Also

Useful links:

- <https://rprojroot.r-lib.org/>
- <https://github.com/r-lib/rprojroot>
- Report bugs at <https://github.com/r-lib/rprojroot/issues>

Examples

```
criteria
## Not run:
is_r_package$find_file("NAMESPACE")
root_fun <- is_r_package$make_fix_file()
root_fun("NAMESPACE")

## End(Not run)
```

criteria *Prespecified criteria*

Description

This is a collection of commonly used root criteria.

Usage

criteria

is_rstudio_project

is_r_package

is_remake_project

is_drake_project

is_pkgdown_project

is_renv_project

is_projectile_project

is_quarto_project

is_git_root

is_svn_root

is_vcs_root

is_testthat

from_wd

Details

is_rstudio_project looks for a file with extension `.Rproj`.

is_r_package looks for a `DESCRIPTION` file.

is_remake_project looks for a `remake.yml` file.

is_drake_project looks for a `.drake` directory.

is_pkgdown_project looks for a `_pkgdown.yml`, `_pkgdown.yaml`, `pkgdown/_pkgdown.yml` and/or `inst/_pkgdown.yml` file.

is_renv_project looks for an `renv.lock` file.

is_projectile_project looks for a `.projectile` file.

is_quarto_project looks for a `_quarto.yml` file.

is_git_root looks for a `.git` directory.

is_svn_root looks for a `.svn` directory.

is_vcs_root looks for the root of a version control system, currently only Git and SVN are supported.

is_test that looks for the test that directory, works when developing, testing, and checking a package.

from_wd uses the current working directory.

find_root

Find the root of a directory hierarchy

Description

A *root* is defined as a directory that contains a regular file whose name matches a given pattern and which optionally contains a given text. The search for a root starts at a given directory (the working directory by default), and proceeds up the directory hierarchy.

get_root_desc() returns the description of the criterion for a root path. This is especially useful for composite root criteria created with `|.root_criterion()`.

Usage

```
find_root(criterion, path = ".")
```

```
get_root_desc(criterion, path)
```

Arguments

criterion	[root_criterion] A criterion, one of the predefined criteria or created by root_criterion() . Will be coerced using as_root_criterion() .
path	[character(1)] The start directory.

Details

Starting from the working directory, the `find_root()` function searches for the root. If a root is found, the `...` arguments are used to construct a path; thus, if no extra arguments are given, the root is returned. If no root is found, an error is thrown.

Value

The normalized path of the root as specified by the search criterion. Throws an error if no root is found

See Also

[utils::glob2rx\(\)](#) [file.path\(\)](#)

Examples

```
## Not run:
find_root(glob2rx("DESCRIPTION"), "^Package: ")

## End(Not run)
```

find_root_file	<i>File paths relative to the root of a directory hierarchy</i>
----------------	---

Description

find_root_file() is a wrapper around [find_root\(\)](#) that appends an arbitrary number of path components to the root using [base::file.path\(\)](#).

Usage

```
find_root_file(..., criterion, path = ".")

find_rstudio_root_file(..., path = ".")

find_package_root_file(..., path = ".")

find_remake_root_file(..., path = ".")

find_testthat_root_file(..., path = ".")
```

Arguments

...	[character] Further path components passed to file.path() . All arguments must be the same length or length one.
criterion	[root_criterion] A criterion, one of the predefined criteria or created by root_criterion() . Will be coerced using as_root_criterion() .
path	[character(1)] The start directory.

Details

This function operates on the notion of relative paths. The ... argument is expected to contain a path relative to the root. If the first path component passed to ... is already an absolute path, the criterion and path arguments are ignored, and ... is forwarded to [file.path\(\)](#).

Value

The normalized path of the root as specified by the search criteria, with the additional path components appended. Throws an error if no root is found.

See Also

`find_root()` `utils::glob2rx()` `base::file.path()`

Examples

```
## Not run:
find_package_root_file("tests", "testthat.R")
has_file("DESCRIPTION", "^Package: ")$find_file
has_file("DESCRIPTION", "^Package: ")$make_fix_file(".")

## End(Not run)
```

root_criterion	<i>Is a directory the project root?</i>
----------------	---

Description

Objects of the `root_criterion` class decide if a given directory is a project root.

Usage

```
root_criterion(testfun, desc, subdir = NULL)

is_root_criterion(x)

as_root_criterion(x)

## S3 method for class 'character'
as_root_criterion(x)

## S3 method for class 'root_criterion'
as_root_criterion(x)

## S3 method for class 'root_criterion'
x | y

has_file(filepath, contents = NULL, n = -1L, fixed = FALSE)

has_dir(filepath)

has_file_pattern(pattern, contents = NULL, n = -1L, fixed = FALSE)

has_basename(basename, subdir = NULL)
```

Arguments

testfun	[function list(function)] A function with one parameter that returns TRUE if the directory specified by this parameter is the project root, and FALSE otherwise. Can also be a list of such functions.
desc	[character] A textual description of the test criterion, of the same length as testfun.
subdir	[character] Subdirectories to start the search in, if found
x	[object] An object.
y	[object] An object.
filepath	[character(1)] File path (can contain directories).
contents, fixed	[character(1)] If contents is NULL (the default), file contents are not checked. Otherwise, contents is a regular expression (if fixed is FALSE) or a search string (if fixed is TRUE), and file contents are checked matching lines.
n	[integerish(1)] Maximum number of lines to read to check file contents.
pattern	[character(1)] Regular expression to match the file name against.
basename	[character(1)] The required name of the root directory.

Details

Construct criteria using `root_criterion` in a very general fashion by specifying a function with a path argument, and a description.

The `as_root_criterion()` function accepts objects of class `root_criterion`, and character values; the latter will be converted to criteria using `has_file`.

Root criteria can be combined with the `|` operator. The result is a composite root criterion that requires either of the original criteria to match.

The `has_file()` function constructs a criterion that checks for the existence of a specific file (which itself can be in a subdirectory of the root) with specific contents.

The `has_dir()` function constructs a criterion that checks for the existence of a specific directory.

The `has_file_pattern()` function constructs a criterion that checks for the existence of a file that matches a pattern, with specific contents.

The `has_basename()` function constructs a criterion that checks if the `base::basename()` of the root directory has a specific name, with support for case-insensitive file systems.

Value

An S3 object of class `root_criterion` with the following members:

`testfun` The `testfun` argument

`desc` The `desc` argument

`subdir` The `subdir` argument

`find_file` A function with `...` and `path` arguments that returns a path relative to the root, as specified by this criterion. The optional `path` argument specifies the starting directory, which defaults to `"."`. The function forwards to `find_root_file()`, which passes `...` directly to `file.path()` if the first argument is an absolute path.

`make_fix_file` A function with a `path` argument that returns a function that finds paths relative to the root. For a criterion `cr`, the result of `cr$make_fix_file(".")(...)` is identical to `cr$find_file(...)`. The function created by `make_fix_file()` can be saved to a variable to be more independent of the current working directory.

Examples

```
root_criterion(function(path) file.exists(file.path(path, "somefile")), "has somefile")
has_file("DESCRIPTION")
is_r_package
## Not run:
is_r_package$find_file
is_r_package$make_fix_file(".")

## End(Not run)
```


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