

# Package: rprojroot (via r-universe)

July 1, 2024

**Title** Finding Files in Project Subdirectories

**Version** 2.0.4.9005

**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.

**License** MIT + file LICENSE

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

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

**Depends** R (>= 3.0.0)

**Suggests** covr, knitr, lifecycle, rlang, rmarkdown, testthat (>= 3.2.0), withr

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**Encoding** UTF-8

**Roxygen** list(markdown = TRUE, load = ``source"`)

**RoxygenNote** 7.3.2

**Repository** <https://r-lib.r-universe.dev>

**RemoteUrl** <https://github.com/r-lib/rprojroot>

**RemoteRef** HEAD

**RemoteSha** b1d4ac41b59071ad2a14e805763d075fb5ff0f06

## Contents

|                             |   |
|-----------------------------|---|
| rprojroot-package . . . . . | 2 |
| criteria . . . . .          | 2 |
| find_root . . . . .         | 4 |
| find_root_file . . . . .    | 5 |
| root_criterion . . . . .    | 6 |

|              |          |
|--------------|----------|
| <b>Index</b> | <b>9</b> |
|--------------|----------|

---

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 | <i>Find the root of a directory hierarchy</i> |
|-----------|---|

---

### 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]<br>A criterion, one of the predefined <a href="#">criteria</a> or created by <code>root_criterion()</code> . Will be coerced using <code>as_root_criterion()</code> . |
| path      | [character(1)]<br>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(has_file_pattern(
  pattern = glob2rx("DESCRIPTION"),
  contents = "^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]<br>Further path components passed to <a href="#">file.path()</a> . All arguments must be the same length or length one.  |
| criterion | [root_criterion]<br>A criterion, one of the predefined <a href="#">criteria</a> or created by <a href="#">root_criterion()</a> . Will be coerced using <a href="#">as_root_criterion()</a> . |
| path      | [character(1)]<br>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)]<br>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]<br>A textual description of the test criterion, of the same length as testfun.   |
| subdir          | [character]<br>If given, the criterion will also be tested in the subdirectories defined by this argument, in the order given. The first existing directory will be used as a starting point. This is used for the <code>is_testthat</code> criterion that needs to <i>descend</i> into tests/testthat if starting at the package root, but stay inside tests/testthat if called from a testthat test. |
| x               | [object]<br>An object.   |
| y               | [object]<br>An object.   |
| filepath        | [character(1)]<br>File path (can contain directories).   |
| contents, fixed | [character(1)]<br>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)]<br>Maximum number of lines to read to check file contents.   |
| pattern         | [character(1)]<br>Regular expression to match the file name against.   |
| basename        | [character(1)]<br>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)
```



# Index

- \* **datasets**
  - criteria, 2
- as\_root\_criterion (root\_criterion), 6
- as\_root\_criterion(), 4, 5
- base::basename(), 7
- base::file.path(), 5, 6
- criteria, 2, 2, 4, 5
- file.path(), 4, 5
- find\_package\_root\_file
  - (find\_root\_file), 5
- find\_remake\_root\_file (find\_root\_file), 5
- find\_root, 4
- find\_root(), 5, 6
- find\_root\_file, 5
- find\_root\_file(), 8
- find\_rstudio\_root\_file
  - (find\_root\_file), 5
- find\_testthat\_root\_file
  - (find\_root\_file), 5
- from\_wd (criteria), 2
- get\_root\_desc (find\_root), 4
- has\_basename (root\_criterion), 6
- has\_dir (root\_criterion), 6
- has\_file (root\_criterion), 6
- has\_file\_pattern (root\_criterion), 6
- is\_drake\_project (criteria), 2
- is\_git\_root (criteria), 2
- is\_pkgdown\_project (criteria), 2
- is\_projectile\_project (criteria), 2
- is\_quarto\_project (criteria), 2
- is\_r\_package (criteria), 2
- is\_remake\_project (criteria), 2
- is\_renv\_project (criteria), 2
- is\_root\_criterion (root\_criterion), 6
- is\_rstudio\_project (criteria), 2
- is\_svn\_root (criteria), 2
- is\_testthat, 7
- is\_testthat (criteria), 2
- is\_vcs\_root (criteria), 2
- root\_criterion, 6
- root\_criterion(), 2, 4, 5
- rprojroot (rprojroot-package), 2
- rprojroot-package, 2
- utils::glob2rx(), 4, 6