Package 'rhub'

March 25, 2019

Title Connect to 'R-hub'

Version 1.1.0

Description Run 'R CMD check' on any of the 'R-hub' (<https://builder.r-hub.io/>)
architectures, from the command line. The current architectures include
'Windows', 'macOS', 'Solaris' and various 'Linux' distributions.

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LazyData true

URL <https://github.com/r-hub/rhub>, <https://r-hub.github.io/rhub/>

BugReports <https://github.com/r-hub/rhub/issues>

RoxygenNote 6.1.1

Roxygen list(markdown = TRUE)

Imports assertthat,
callr,
cli,
crayon,
desc,
digest,
httr,
jsonlite,
parsedate,
pillar,
prettyunits,
processx,
R6,
rappdirs,
rcmdcheck (>= 1.2.1),
rematch,
tibble,
utils,
uuid,
whoami,
withr

Suggests covr,
testthat,
knitr,
rmarkdown

Encoding UTF-8

VignetteBuilder knitr

R topics documented:

---

check   *Check an R package on R-hub*

Description

Check an R package on R-hub

Usage

```
check(path = ".", platform = NULL, email = NULL, valgrind = FALSE,
  check_args = character(), env_vars = character(),
  show_status = interactive())
```

Arguments

path	Path to a directory containing an R package, or path to source R package tarball built with `R CMD build` or `devtools::build()`.
platform	Platform to build/check the package on. See platforms() for the available platforms. If this is `NULL`, and the R session is interactive, then a menu is shown. If it is `NULL`, and the session is not interactive, then the default R-hub platforms is used. Can take a vector of platforms which saves time by building one R package tarball that is used for all the platforms specified.
email	Email address to send notification to about the check. It must be a validated email address, see validate_email(). If `NULL`, then the email address of the maintainer is used, as defined in the `DESCRIPTION` file of the package.
valgrind	Whether to run the check in valgrind. Only supported on Linux currently, and ignored on other platforms.
check_args	Extra arguments for the `R CMD check` command.

env_vars	Environment variables to set on the builder machine before the check. A named character vector.
show_status	Whether to show the status of the build and check (live log) as it is happening.

Value

An [rhub_check](#) object.

Examples

```
## Not run:
check(".")
check("mypackage_1.0.0.tar.gz", platform = "fedora-clang-devel")

## End(Not run)
```

---

check_for_cran *Check an R-package on R-hub, for a CRAN submission*

Description

This function calls [check()](#) with arguments and platforms, that are suggested for a CRAN submission.

Usage

```
check_for_cran(path = ".", email = NULL, check_args = "--as-cran",
  env_vars = c(`_R_CHECK_FORCE_SUGGESTS_` = "true",
  `_R_CHECK_CRAN_INCOMING_USE_ASPELL_` = "true"), platforms = NULL, ...)
```

Arguments

path	Path to a directory containing an R package, or path to source R package tarball built with R CMD build or devtools::build().
email	Email address to send notification to about the check. It must be a validated email address, see [validate_email()](#). If NULL, then the email address of the maintainer is used, as defined in the DESCRIPTION file of the package.
check_args	Arguments for R CMD check. By default --as-cran is used.
env_vars	Environment variables to set on the builder. By default _R_CHECK_FORCE_SUGGESTS_=true is set, to require all packages used. _R_CHECK_CRAN_INCOMING_USE_ASPELL_=true is also set, to use the spell checker.
platforms	Character vector of platform ids to use (see [platforms()](#)), or NULL. If NULL, then a set of default platforms will be selected, see below.
...	Additional arguments are passed to [check()](#).

Details

In particular, if platforms is NULL (the default), then

- It checks the package on Windows, and Linux.
- It checks the package on R-release and R-devel.
- It uses the --as-cran argument to R CMD check.
- It requires all dependencies, including suggested ones.

Value

An rhub_check object.

Examples

```
## Not run:
ch <- check_for_cran("package", show_status = FALSE)
ch$update()
ch$livelog(3)

## End(Not run)
```

---

check_on_linux   *Check an R package on an R-hub platform*

Description

These functions provide a quick easy to use interface to check a package on a platform with some
particular aspect. Which platform they use might change over time.

Usage

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

check_on_windows(path = ".", ...)

check_on_macos(path = ".", ...)

check_on_debian(path = ".", ...)

check_on_ubuntu(path = ".", ...)

check_on_fedora(path = ".", ...)

check_on_solaris(path = ".",
  check_args = "'--no-manual --no-build-vignettes'", ...)

check_on_centos(path = ".", ...)

check_with_roldrel(path = ".", ...)

check_with_rrelease(path = ".", ...)

check_with_rpatched(path = ".", ...)

check_with_rdevel(path = ".", ...)

check_with_valgrind(path = ".", ...)

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

Arguments

path	Path to a directory containing an R package, or path to source R package tarball built with R CMD build or devtools::build().
...	Additional arguments are passed to check().
check_args	Extra arguments for the R CMD check command.

Value

An rhub_check object.

---

get_check   *Retrieve the result of R-hub checks*

Description

Retrieve the result of R-hub checks

Usage

```
get_check(ids)
```

Arguments

ids	One of the following: • A single R-hub check id. • A character vector of check ids. • An R-hub check group id. All ids can be abbreviated, see [R-hub ids](R-hub ids).

Value

An rhub_check object.

Examples

```
chk <- get_check("915ee61")
chk
chk$update()
chk$browse()
chk$cran_summary()
chk$urls()
```

See Also

list_my_checks() and list_package_checks() to list R-hub checks.

---

last_check   *The last rhub check of this R session*

Description

rhub caches the id(s) of the last submission. This can be retrieved with last_check.

Usage

```
last_check()
```

Value

An rhub_check object.

Examples

```
## Not run:
check("packagedir")
last_check()
last_check()$livelog()

## End(Not run)
```

---

list_my_checks   *List all checks for an email address*

Description

List all checks for an email address

Usage

```
list_my_checks(email = email_address(), package = NULL, howmany = 20)
```

Arguments

email	Email address. By default it is guessed with whoami::email_address(). The address must be validated, see validate_email().
package	NULL, or a character scalar. Can be used to restrict the search for a single package.
howmany	How many check groups (checks submitted simultaneously) to show. The current API limit is 20.

Value

A tibble::tibble with columns:

- package Name of the package.

- version Package version.

- result: More detailed result of the check. Can be NULL for errors. This is a list column with members: `status`, `errors`, `warnings`, `notes`.

- group: R-hub check group id.

- id: 'R-hub check id.

- platform_name: Name of the check platform.

- build_time: Build time, a difftime object.

- submitted: Time of submission.

- started: Time of the check start.

- platform: Detailed platform data, a list column.

- builder: Name of the builder machine.

- status Status of the check. Possible values:

  - `created`: check job was created, but not running yet.
  - `in-progress`: check job is running.
  - `parseerror`: internal R-hub error parsing the check results.
  - `preperror`: check error, before the package check has started.
  - `aborted`: aborted by admin or user.
  - `error`: failed check. (Possibly warnings and notes as well.)
  - `warning`: R CMD check reported warnings. (Possibly notes as well.)
  - `note`: R CMD check reported notes.
  - `ok`: successful check.

- email: Email address of maintainer / submitter.

See Also

list_package_checks

Examples

```
## Not run:
ch <- list_my_checks()
ch
ch$details()

## End(Not run)
```

`list_package_checks`   *List checks of a package*

Description

List checks of a package

Usage

```
list_package_checks(package = ".", email = NULL, howmany = 20)
```

Arguments

package	Directory of an R package, or a package tarball.
email	Email address that was used for the check(s). If NULL, then the maintainer address is used.
howmany	How many checks to show. The current maximum of the API is 20.

Value

A tibble::tibble with columns:

- package Name of the package.
- version Package version.
- result: More detailed result of the check. Can be NULL for errors. This is a list column with members: `status`, `errors`, `warnings`, `notes`.
- group: R-hub check group id.
- id: 'R-hub check id.
- platform_name: Name of the check platform.
- build_time: Build time, a difftime object.
- submitted: Time of submission.
- started: Time of the check start.
- platform: Detailed platform data, a list column.
- builder: Name of the builder machine.
- status Status of the check. Possible values:
  - `created`: check job was created, but not running yet.
  - `in-progress`: check job is running.
  - `parseerror`: internal R-hub error parsing the check results.
  - `preperror`: check error, before the package check has started.
  - `aborted`: aborted by admin or user.
  - `error`: failed check. (Possibly warnings and notes as well.)
  - `warning`: `R CMD check` reported warnings. (Possibly notes as well.)
  - `note`: `R CMD check` reported notes.
  - `ok`: successful check.
- email: Email address of maintainer / submitter.

Examples

```
## Not run:
ch <- list_package_checks()
ch
ch$details(1)

## End(Not run)
```

---

list_validated_emails *List validated email addresses*

Description

List email addresses validated on R-hub on the current machine.

Usage

```
list_validated_emails()
```

Value

A `data.frame` with two columns: `email` and `token`. If in interactive mode, and there are no validated email addresses, then a message is printed and the data frame is returned invisibly.

See Also

Other email validation: `validate_email`

---

local_check_linux *Run a package check locally, in a Docker container*

Description

Run a package check locally, in a Docker container. UNTESTED ON WINDOWS, bug reports welcome. :-)

Usage

```
local_check_linux(path = ".", quiet = FALSE, image = NULL,
  valgrind = FALSE, check_args = character(), env_vars = character(),
  timeout = Inf, artifacts = tempfile())
```

Arguments

`path`	Path to a directory containing an R package, or path to source R package tarball built with `R CMD build` or `devtools::build()`.
`quiet`	Whether to print the check output
`image`	Docker image to use. If `NULL`, a default image is selected.
`valgrind`	Whether to run the check with Valgrind.
`check_args`	Extra arguments for the `R CMD check` command.
`env_vars`	Environment variables to set on the builder machine before the check. A named character vector.
`timeout`	Timeout for a check, a `difftime` object or a scalar that will be interpreted as seconds.
`artifacts`	Where to copy the build artifacts after the build.

Details

You'll need to have bash and Docker installed.

Value

An `rcmdcheck::rcmdcheck` object, with extra fields:

- `all_output`: all output from the check, both standard output and error.

- `container_name`: name of the Docker container that performed the build. It is a random name.

- `artifacts`: directory of build artifacts.

`local_check_linux_images`

List R-hub Docker images

Description

The images are pretty-printed in a short format. Use `as.data.frame()` to get all available platform metadata.

Usage

```
local_check_linux_images()
```

---

platforms   *List all R-hub platforms*

Description

The platforms are pretty-printed in a short format. Use `as.data.frame(platforms())` to get all available platform metadata.

Usage

```
platforms()
```

Examples

```
## Not run:
platforms()
as.data.frame(platforms())

## End(Not run)
```

---

rhub-ids   *R-hub check ids*

Description

R-hub check ids

R-hub ids

Every R-hub check has a unique id, that is constructed from the name of the source package archive, and a random string. For example:

```
devtools_2.0.0.tar.gz-fe53bbba85de4a579f6dc3b852bf76a3
```

R-hub group ids

For every check submission, R-hub also creates a unique check group id. One check group may contain multiple checks. E.g. `check_for_cran()` typically creates three or four check groups. Group ids look the same as individual check ids.

Abbreviating ids

The rhub package keeps a list of all the checks that it has seen in the current session, and these checks can be also referenced by any unique prefix of the random string part of the id, e.g. in the `get_check()` function. E.g. if rhub already know the devtools check above, then

```
get_check("fe53bbb")
```

works.

This is only recommended in interactive mode, and we suggest that you always use the full ids when using rhub programmatically.

| rhub_check | *An* rhub_check *object holds status and results of rhub checks* |

Description

An rhub_check object holds status and results of rhub checks

Usage

```
ch <- rhub_check$new(ids = NULL, status = NULL, group = NULL)
ch$update()
ch$print(...)
ch$browse(which = NULL)
ch$urls(which = NULL)
ch$livelog(which = 1)
ch$cran_summary()
```

Arguments

- ch An rhub check object. It can be created using check(), and other check functions including check_for_cran. See also last_check().
- ids Character vector of check ids.
- status Check status for ids or group.
- group Check group id, string scalar. Either group or ids must be non-NULL.
- ... Extra arguments are currently ignored.
- which Which check to show, if the object contains multiple checks. For browse the default is all checks. For livelog the default is the first check. A check can be selected via its number or id.

Details

An rhub_check object can be created by check(), list_my_checks(), or list_package_checks(). last_check() returns the last check(s) submitted from the current R session. Do not confuse rhub_check/rhub_check_for_cran (classes) with check() or check_for_cran() (functions).

ch$update() updates the status of the check. Printing the check status to the screen does not perform an update, unless the status of the check(s) is unknown.

ch$print() prints the status of the check(s) to the screen.

ch$cran_summary() prints text to be copy-pasted in cran-comments.md, it is especially useful on the output of check_for_cran().

ch$browse() opens a tab or window in the default web browser, that points to the detailed logs of the check(s).

ch$urls() return a tibble::tibble with URL to the html log, text log and artifacts of the check(s).

For both ch$browse() and ch$urls(), note that the logs and artifacts are not kept forever, they are accessible for a few days after submission.

ch$livelog() shows the live log of the check. The live log can be interrupted using the usual interruption keyboard shortcut, usually CTRL+c or ESC.

---

validate_email *Validate an email address on R-hub*

Description

To build and check R packages on R-hub, you need to validate your email address. This is because R-hub sends out emails about check results.

Usage

```
validate_email(email = NULL, token = NULL)
```

Arguments

email	The email address to validate.
token	Token obtained from rhub, to validate the email address.

Details

The rhub package stores validated email addresses in a user configuration file, at a platform-dependent location. On your current platform the file is at /Users/gaborcsardi/Library/Application Support/rhub/validated_emails.csv.

To validate a new email address, call this function from an interactive R session, without any arguments.

To add an email address that was validated before (probably on another machine), to the configuration file, call this function with the email and token arguments.

See Also

Other email validation: list_validated_emails

Index