

# Package ‘startup’

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**Version** 0.16.0

**Title** Friendly R Startup Configuration

**Depends** R (>= 2.14.0)

**Suggests** commonmark, tools, tcltk

**VignetteBuilder** startup

**Description** Adds support for R startup configuration via '.Renviron.d' and '.Rprofile.d' directories in addition to '.Renviron' and '.Rprofile' files. This makes it possible to keep private / secret environment variables separate from other environment variables. It also makes it easier to share specific startup settings by simply copying a file to a directory.

**License** LGPL (>= 2.1)

**LazyLoad** TRUE

**URL** <https://github.com/HenrikBengtsson/startup>

**BugReports** <https://github.com/HenrikBengtsson/startup/issues>

**RoxygenNote** 7.1.2

**NeedsCompilation** no

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check	<i>Check for and fix common mistakes in .Rprofile</i>
-------	---

---

## Description

Check for and fix common mistakes in ‘.Rprofile’ files.

## Usage

```
check(all = FALSE, fix = TRUE, backup = TRUE, debug = FALSE)
```

## Arguments

all	Should all or only the first entry on <a href="#">the R startup search path</a> be checked?
fix	If TRUE, detected issues will be tried to be automatically fixed, otherwise not.
backup	If TRUE, a timestamped backup copy of the original file is created before modifying it, otherwise not.
debug	If TRUE, debug messages are outputted, otherwise not.

## Value

Returns invisibly a character vector of files that were "fixed" (modified), if any. If no files needed to be fixed, or `fix = TRUE`, then an empty vector is returned.

## References

1. R-devel thread ‘Last line in .Rprofile must have newline (PR#4056)’, 2003-09-03, <https://stat.ethz.ch/pipermail/r-devel/2003-September/027457.html>

---

current_script	<i>Gets the pathname of the currently running startup script</i>
----------------	--

---

**Description**

Gets the pathname of the currently running startup script

**Usage**

```
current_script()
```

**Value**

A character string

---

install	<i>Install and uninstall support for .Renviron.d and .Rprofile.d startup directories</i>
---------	--

---

**Description**

Install and uninstall support for ‘.Renviron.d’ and ‘.Rprofile.d’ startup directories by appending / removing one line of code to the ‘~/ .Rprofile’ file.

**Usage**

```
install(path = "~", backup = TRUE, overwrite = FALSE, quiet = FALSE)
```

```
uninstall(path = "~", backup = TRUE, quiet = FALSE)
```

**Arguments**

path	The path where to create / update the ‘.Rprofile’ file.
backup	If TRUE, a timestamped backup copy of the original file is created before modifying / overwriting it, otherwise not. If the backup fails, then an error is produced and the R startup file is unmodified.
overwrite	If the R startup file already exist, then FALSE (default) appends the startup code to the end of the file. is overwritten. If TRUE, any pre-existing R startup file is overwritten.
quiet	If FALSE (default), detailed messages are generated, otherwise not.

**Value**

The pathname of the R startup file modified.

**Functions**

- `install`: injects a `tryCatch(startup::startup(), ...)` call to the `.Rprofile` file (created if missing) and creates empty folders `.Renviron.d/` and `.Rprofile.d/`, if missing.
- `uninstall`: Remove calls to `startup::startup()` and similar.

---

`is_ess`*Checks whether running R via Emacs Spekas Statistics (ESS) or not*

---

**Description**

Checks whether running R via Emacs Spekas Statistics (ESS) or not

**Usage**

```
is_ess()
```

**Value**

A logical

---

`is_microsoftr`*Checks if running R in Microsoft R Open*

---

**Description**

Checks if running R in Microsoft R Open

**Usage**

```
is_microsoftr()
```

**Value**

A logical

---

`is_pqr`*Checks if running pqR (A Pretty Quick Version of R)*

---

**Description**

Checks if running pqR (A Pretty Quick Version of R)

**Usage**

```
is_pqr()
```

**Value**

A logical

**References**

1. pqR - a pretty quick version of R, <http://www.pqr-project.org/>
2. GitHub repository for 'pqR' <https://github.com/radfordneal/pqR>

---

`is_radian`*Checks whether running R via radian (formerly known as rtichoke and rice) or not*

---

**Description**

Checks whether running R via radian (formerly known as rtichoke and rice) or not

**Usage**

```
is_radian()
```

**Value**

A logical

**References**

1. radian - A 21 century R console (previously known as rtichoke and rice), <https://github.com/randy3k/radian>

---

is_rscript	<i>Checks if running R via Rscript or not</i>
------------	---

---

**Description**

*WARNING: This function does not work - it always returns FALSE [1].*

**Usage**

```
is_rscript()
```

**Details**

This functions use `basename(commandArgs()[1])` to infer whether or not R was launched via 'Rscript'. On Windows, both 'Rscript' and 'Rscript.exe' are recognized and the check is case insensitive.

**Value**

A logical

**References**

1. <https://github.com/HenrikBengtsson/startup/issues/97>

---

is_rstudio_console	<i>Checks if running R in RStudio Console or RStudio Terminal</i>
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---

**Description**

Checks if running R in RStudio Console or RStudio Terminal

**Usage**

```
is_rstudio_console()
```

**Value**

A logical

**References**

1. Kevin Ushey (RStudio), Check if R is running in RStudio, Stackoverflow, 2016-09-23, [https://stackoverflow.com/questions/12389158/check-if-r-is-running-in-rstudio#comment66636507\\_35849779](https://stackoverflow.com/questions/12389158/check-if-r-is-running-in-rstudio#comment66636507_35849779)
2. Jonathan McPherson (RStudio), Programmatically detect RStudio Terminal vs RStudio Console?, RStudio Community - RStudio IDE, 2018-01-10, <https://community.rstudio.com/t/programmatically-detect-rstudio-terminal-vs-rstudio-console/4107>

---

is_wine	<i>Checks whether running R on Windows using Wine or not</i>
---------	--

---

**Description**

Checks whether running R on Windows using Wine or not

**Usage**

```
is_wine()
```

**Value**

A logical

**References**

1. Wine Developer FAQ, How can I detect Wine?, [https://wiki.winehq.org/Developer\\_FAQ#How\\_can\\_I\\_detect\\_Wine.3F](https://wiki.winehq.org/Developer_FAQ#How_can_I_detect_Wine.3F)
2. Jeff Zaroyko, Detecting Wine, Wine Devel mailing list, 2008-09-29, <https://www.winehq.org/pipermail/wine-devel/2008-September/069387.html>

---

renviron_d	<i>Load .Renviron.d and .Rprofile.d directories during the R startup process</i>
------------	--

---

**Description**

Initiates R using all files under ‘.Renviron.d/’ and / or ‘.Rprofile.d/’ directories (or in subdirectories thereof).

**Usage**

```
renviron_d(  
  sibling = FALSE,  
  all = FALSE,  
  unload = FALSE,  
  skip = NA,  
  dryrun = NA,  
  debug = NA,  
  paths = NULL  
)
```

```
rprofile_d(  
  sibling = FALSE,
```

```

    all = FALSE,
    check = NA,
    unload = FALSE,
    skip = NA,
    on_error = c("error", "warning", "immediate.warning", "message", "ignore"),
    dryrun = NA,
    debug = NA,
    paths = NULL
  )

  startup(
    sibling = FALSE,
    all = FALSE,
    on_error = c("error", "warning", "immediate.warning", "message", "ignore"),
    keep = c("options"),
    check = NA,
    unload = TRUE,
    skip = NA,
    dryrun = NA,
    debug = dryrun
  )

```

### Arguments

sibling	If TRUE, then only <code>‘.Renviron.d/’</code> and <code>‘.Rprofile.d/’</code> directories with a sibling <code>‘.Renviron’</code> and <code>‘.Rprofile’</code> in the same location will be considered.
all	If TRUE, then <i>all</i> <code>‘.Renviron.d/’</code> and <code>‘.Rprofile.d/’</code> directories found on <a href="#">the R startup search path</a> are processed, otherwise only the <i>first ones</i> found.
unload	If TRUE, then the package is unloaded afterward, otherwise not.
skip	If TRUE, startup directories will be skipped. If NA, they will be skipped if command-line options <code>--vanilla</code> , <code>--no-init-file</code> , and / or <code>--no-envron</code> were specified.
dryrun	If TRUE, everything is done except the processing of the startup files.
debug	If TRUE, debug messages are outputted, otherwise not.
paths	(internal) character vector of directories.
check	If TRUE, then the content of startup files are validated.
on_error	Action taken when an error is detected when sourcing an Rprofile file. It is not possible to detect error in Renviron files; they are always ignored with a message that cannot be captured.
keep	Specify what information should remain after this function complete. The default is to keep <code>startup.session.*</code> options as recorded by <a href="#">startup_session_options()</a> .

### Details

The above is done in addition the `‘.Renviron’` and `‘.Rprofile’` files that are supported by the built-in [startup process](#) of R.



## Functions

- `renviron_d`: Initiate using `‘.Renviron.d/’` files
- `rprofile_d`: Initiate using `‘.Rprofile.d/’` files
- `startup`: `renviron_d()` followed by `rprofile_d()` and then the package is unloaded

## User-specific installation

In order for `‘.Rprofile.d’` and `‘.Renviron.d’` directories to be included during the R startup process, a user needs to add `startup::startup()` to `‘~/.Rprofile’`. Adding this can also be done by calling `install()` once.

## Site-wide installation

An alternative to having each user add `startup::startup()` in their own `‘~/.Rprofile’` file, is to add it to the site-wide `‘Rprofile.site’` file (see [?Startup](#)). The advantage of such a site-wide installation, is that the users do not have to have a `‘.Rprofile’` file for `‘.Rprofile.d’` and `‘.Renviron.d’` directories to work. For this to work for all users automatically, the **startup** package should also be installed in the site-wide library.

## Examples

```
## Not run:
# The most common way to use the package is to add
# the following call to the ~/.Rprofile file.
startup::startup()

# To process ~/.Renviron.d/ files, and then any ./Renviron.d/ files,
# followed by ~/.Rprofile.d/ files, and then any ./Rprofile.d/ files,
# add the following call to the ~/.Rprofile file.
startup::startup(all = TRUE)

# For finer control of on exactly what files are used
# functions renviron_d() and rprofile_d() are also available:

# Initiate first .Renviron.d/ found on search path
startup::renviron_d()

# Initiate all .Rprofile.d/ directories found on the startup search path
startup::rprofile_d(all = TRUE)

## End(Not run)
```

---

reset\_when\_cache

*Reset all or parts of the "when" cache*

---

## Description

Reset all or parts of the "when" cache

**Usage**

```
reset_when_cache(
  when = c("once", "hourly", "daily", "weekly", "fortnightly", "monthly")
)
```

**Arguments**

**when** (character vector) Specifies for which "when" frequencies the cache should be reset. The default is to reset all of them.

**Value**

(invisible) The pathnames of the "when" cache files removed.

---

 restart

*Restarts R*


---

**Description**

Restarts R by quitting the current R session and launching a new one.

**Usage**

```
restart(
  status = 0L,
  workdir = NULL,
  rcmd = NULL,
  args = NULL,
  envvars = NULL,
  as = c("current", "specified", "R CMD build", "R CMD check", "R CMD INSTALL"),
  quiet = FALSE,
  debug = NA
)
```

**Arguments**

**status** An integer specifying the exit code of the current R session.

**workdir** The working directory where the new R session should be launched from. If NULL, then the working directory that was in place when the **startup** package was first loaded. If using `startup::startup()` in an `‘.Rprofile’` startup file, then this is likely to record the directory from which R itself was launched from.

**rcmd** A character string specifying the command for launching R. The default is the same as used to launch the current R session, i.e. `commandArgs()[1]`.

**args** A character vector specifying zero or more command-line arguments to be appended to the system call of `rcmd`.

**envvars** A named character vector of environment variables to be set when calling R.

as	A character string specifying a predefined setups of <code>rcmd</code> , <code>args</code> , and <code>envvars</code> . For details, see below.
quiet	Should the restart be quiet or not? If NA and <code>as == "current"</code> , then quiet is TRUE if the current R session was started quietly, otherwise FALSE.
debug	If TRUE, debug messages are outputted, otherwise not.

### Predefined setups

Argument `as` may take the following values:

"current": (Default) A setup that emulates the setup of the current R session as far as possible by relaunching R with the same command-line call (= `base::commandArgs()`).

"specified": According to `rcmd`, `args`, and `envvars`.

"R CMD build": A setup that emulates **R CMD build** as far as possible.

"R CMD check": A setup that emulates **R CMD check** as far as possible, which happens to be identical to the "R CMD build" setup.

"R CMD INSTALL": A setup that emulates **R CMD INSTALL** as far as possible.

If specified, command-line arguments in `args` and environment variables in `envvars` are *appended* accordingly.

### Known limitations

It is *not* possible to restart an R session running in *RGui* on Microsoft Windows using this function.

It is *not* possible to restart an R session in the RStudio *Console* using this function. However, it does work when running R in the RStudio *Terminal*.

RStudio provides `rstudioapi::restartSession()` which will indeed restart the RStudio Console. However, it does not let you control how R is restarted, e.g. with what command-line options and what environment variables. Importantly, the new R session will have the same set of packages loaded as before, the same variables in the global environment, and so on.

### Examples

```
## Not run:
## Relaunch R with debugging of startup::startup() enabled
startup::restart(envvars = c(R_STARTUP_DEBUG = TRUE))

## Relaunch R without loading user Rprofile files
startup::restart(args = "--no-init-file")

## Mimic 'R CMD build' and 'R CMD check'
startup::restart(as = "R CMD build")
startup::restart(as = "R CMD check")
## ... which are both short for
startup::restart(args = c("--no-restore"),
                 envvars = c(R_DEFAULT_PACKAGES="", LC_COLLATE="C"))

## End(Not run)
```

---

startup.options      *Options and environment variables used by the 'startup' package*

---

## Description

Below are environment variables and R options that are used by the **startup** package. The `R_STARTUP_***` environment variables must be set before calling the `startup::startup()` function, that is, either (i) prior to launching R or (ii) in the `‘.Renviron’` file.

### Controls whether startup is used or not

`R_STARTUP_DISABLE / ‘startup.disable’`: (logical) If TRUE, `startup::startup()` is fully disable such that *no* `‘.Renviron.d/’` or `‘.Rprofile.d/’` files are processed. *Note*: Files `‘.Renviron’` and `‘.Rprofile’` are still processed because these are out of control of the **startup** package. (Default: FALSE)

`R_STARTUP_DRYRUN / ‘startup.dryrun’`: (logical) Controls the default value of argument `dryrun` of `startup()`. (Default: FALSE)

### Additional customization of the startup process

`R_STARTUP_INIT / ‘startup.init’`: (R code as a character string) Optional R code that is parsed and evaluated after `‘.Renviron.d/’` and `‘.Rprofile.d/’` files have been processed, e.g. `R_STARTUP_INIT="message(-quiet)`. The specified string must be parsable by `base::parse()`. (Default: not specified)

`R_STARTUP_RDATA / ‘startup.rdata’`: (comma-separated values) Controls whether an existing `‘./RData’` file should be processed or not. If `"remove"`, it will be skipped by automatically removing it. If `"rename"`, it will be renamed to `‘./RData.YYYYMMDD_hhmmss’` where the timestamp is the last time the file was modified. If `"prompt"`, the user is prompted whether they want to load the file or rename it. In non-interactive session, `"prompt"` will fallback to loading the content (default). To fallback to renaming the file, use `"prompt, rename"`. Note that in contrast to R and R CMD BATCH file.R, Rscript does *not* load `‘.RData’` files unless command-line option `--restore` is specified. (Default: not specified)

### Controls what validation checks are performed at startup

`R_STARTUP_CHECK / ‘startup.check’`: (logical) Controls the default value of argument `check` of `startup()`. (Default: TRUE)

`R_STARTUP_CHECK_OPTIONS_IGNORE / ‘startup.check.options.ignore’`: (character vector or comma-separated character string) Names of R options that should *not* be validated at the end of the `startup()` process. (Default: `"error"`)

### Settings useful for debugging and prototyping

`R_STARTUP_DEBUG / ‘startup.debug’`: (logical) Controls the default value of argument `debug` of `startup()`. (Default: FALSE)

`‘startup.commandArgs’`: (character vector) Overrides the command-line arguments that `startup()` uses, which can be useful to prototype and test alternative ways that R might be launched. (Default: `base::commandArgs()`)

R\_STARTUP\_TIME / 'startup.time': (POSIX timestamp; character string) Overrides the current timestamp, which can be useful to prototype and test functionalities that depend on the current time, e.g. inclusion and exclusion of files based on when=<periodicity> tags. The specified string must be parsable by `base::as.POSIXct()`. (Default: not specified)

---

startup\_session\_options

*Record R session information as options*

---

### Description

Record R session information as options

### Usage

```
startup_session_options(action = c("update", "overwrite", "erase"))
```

### Arguments

**action** If "update" or "overwrite", R options "startup.session.\*" are set. If "update", then such options that are not already set are updated. If "erase", any existing "startup.session.\*" options are removed.

### Value

Returns invisibly a named list of the options prefixed "startup.session.":

`startup.session.startdir` (character) the working directory when the **startup** was first loaded. If `startup::startup()` is called at the very beginning of the '.Rprofile' file, this is also the directory that the current R session was launched from.

`startup.session.starttime` (POSIXct) the time when the **startup** was first loaded.

`startup.session.id` (character) a unique ID for the current R session.

`startup.session.dumpto` (character) a session-specific name that can be used for argument `dumpto` of `dump.frames()` (also for dumping to file).

### Examples

```
opts <- startup::startup_session_options()
opts
```

---

sysinfo	<i>Information on the current R session</i>
---------	---

---

**Description**

Information on the current R session

**Usage**

```
sysinfo()
```

**Value**

A named list.

**Examples**

```
startup::sysinfo()
```

---

warn	<i>Produce a warning</i>
------	--------------------------

---

**Description**

Produce a warning

**Usage**

```
warn(..., call. = FALSE, immediate. = TRUE, domain = NULL)
```

**Arguments**

..., domain	The message and optionally the domain used for translation. The ... arguments are passed to <code>base::sprintf</code> to create the message string.
call.	If <code>base::TRUE</code> , the call is included in the warning message, otherwise not.
immediate.	If <code>base::TRUE</code> , the warning is outputted immediately, otherwise not.

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