

# Package ‘attachment’

October 12, 2022

**Title** Deal with Dependencies

**Version** 0.3.0

**Description** Manage dependencies during package development. This can retrieve all dependencies that are used in ``.R`` files in the ``R/`` directory, in ``.Rmd`` files in ``vignettes/`` directory and in 'roxygen2' documentation of functions. There is a function to update the ``DESCRIPTION`` file of your package with 'CRAN' packages or any other remote package. All functions to retrieve dependencies of ``.R`` scripts and ``.Rmd`` or ``.qmd`` files can be used independently of a package development.

**License** GPL-3

**URL** <https://thinkr-open.github.io/attachment/>,  
<https://github.com/ThinkR-open/attachment>

**BugReports** <https://github.com/ThinkR-open/attachment/issues>

**VignetteBuilder** knitr

**Encoding** UTF-8

**RoxygenNote** 7.2.1

**Config/testthat/edition** 3

**Depends** R (>= 3.4)

**Imports** cli, desc (>= 1.2.0), glue (>= 1.3.0), knitr (>= 1.20),  
magrittr (>= 1.5), rmarkdown (>= 1.10), roxygen2, stats,  
stringr (>= 1.3.1), utils, withr

**Suggests** lifecycle, renv (>= 0.8.4), rstudioapi, testthat (>= 3.0.0)

**NeedsCompilation** no

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att_amend_desc	<i>Amend DESCRIPTION with dependencies read from package code parsing</i>
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---

### Description

Amend package DESCRIPTION file with the list of dependencies extracted from R, tests, vignettes files. `att_to_desc_from_pkg()` is an alias of `att_amend_desc()`, for the correspondence with `att_to_desc_from_is()`.

### Usage

```
att_amend_desc(
  path = ".",
  path.n = "NAMESPACE",
  path.d = "DESCRIPTION",
  dir.r = "R",
  dir.v = "vignettes",
  dir.t = "tests",
  extra.suggests = NULL,
  pkg_ignore = NULL,
  document = TRUE,
  normalize = TRUE,
  inside_rmd = FALSE,
  must.exist = TRUE
)
```

```
att_to_desc_from_pkg(
  path = ".",
```

```

  path.n = "NAMESPACE",
  path.d = "DESCRIPTION",
  dir.r = "R",
  dir.v = "vignettes",
  dir.t = "tests",
  extra.suggests = NULL,
  pkg_ignore = NULL,
  document = TRUE,
  normalize = TRUE,
  inside_rmd = FALSE,
  must.exist = TRUE
)

```

## Arguments

path	path to the root of the package directory. Default to current directory.
path.n	path to namespace file.
path.d	path to description file.
dir.r	path to directory with R scripts.
dir.v	path to vignettes directory. Set to empty (dir.v = "") to ignore.
dir.t	path to tests directory. Set to empty (dir.t = "") to ignore.
extra.suggests	vector of other packages that should be added in Suggests (pkgdown, covr for instance)
pkg_ignore	vector of packages names to ignore.
document	Run function roxygenise of roxygen2 package
normalize	Logical. Whether to normalize the DESCRIPTION file. See <a href="#">desc::desc_normalize()</a>
inside_rmd	Logical. Whether function is run inside a Rmd, in case this must be executed in an external R session
must.exist	Logical. If TRUE then an error is given if packages do not exist within installed packages. If NA, a warning.

## Value

Update DESCRIPTION file.

## Examples

```

tmpdir <- tempdir()
file.copy(system.file("dummyspackage", package = "attachment"), tmpdir,
  recursive = TRUE)
dummyspackage <- file.path(tmpdir, "dummyspackage")
# browseURL(dummyspackage)
att_amend_desc(path = dummyspackage)

```

---

att\_from\_description    *Return all package dependencies from current package*

---

### Description

Return all package dependencies from current package

### Usage

```
att_from_description(
  path = "DESCRIPTION",
  dput = FALSE,
  field = c("Depends", "Imports", "Suggests")
)
```

### Arguments

path	path to the DESCRIPTION file
dput	if FALSE return a vector instead of dput output
field	DESCRIPTION field to parse, Import, Suggests and Depends by default

### Value

A character vector with packages names

### Examples

```
dummyspackage <- system.file("dummyspackage", package = "attachment")
# browseURL(dummyspackage)
att_from_description(path = file.path(dummyspackage, "DESCRIPTION"))
```

---

att\_from\_namespace    *return package dependencies from NAMESPACE file*

---

### Description

return package dependencies from NAMESPACE file

### Usage

```
att_from_namespace(path = "NAMESPACE", document = TRUE, clean = TRUE)
```

**Arguments**

path	path to NAMESPACE file
document	Run function roxygenise of roxygen2 package
clean	Logical. Whether to remove the original NAMESPACE before updating

**Value**

a vector

**Examples**

```
tmpdir <- tempdir()
file.copy(system.file("dummyspackage", package = "attachment"), tmpdir,
  recursive = TRUE)
dummyspackage <- file.path(tmpdir, "dummyspackage")
# browseURL(dummyspackage)
att_from_namespace(path = file.path(dummyspackage, "NAMESPACE"))
```

---

att\_from\_rmd

*Get all dependencies from a Rmd file*

---

**Description**

Get all dependencies from a Rmd file

**Usage**

```
att_from_rmd(
  path,
  temp_dir = tempdir(),
  warn = -1,
  encoding = getOption("encoding"),
  inside_rmd = FALSE,
  inline = TRUE
)
```

```
att_from_qmd(
  path,
  temp_dir = tempdir(),
  warn = -1,
  encoding = getOption("encoding"),
  inside_rmd = FALSE,
  inline = TRUE
)
```

**Arguments**

path	Path to a Rmd file
temp_dir	Path to temporary script from purl vignette
warn	-1 for quiet warnings with purl, 0 to see warnings
encoding	Encoding of the input file; always assumed to be UTF-8 (i.e., this argument is effectively ignored).
inside_rmd	Logical. Whether function is run inside a Rmd, in case this must be executed in an external R session
inline	Logical. Default TRUE. Whether to explore inline code for dependencies.

**Value**

vector of character of packages names found in the Rmd

**Examples**

```
dummyspackage <- system.file("dummyspackage",package = "attachment")
# browseURL(dummyspackage)
att_from_rmd(path = file.path(dummyspackage,"vignettes/demo.Rmd"))
```

---

att\_from\_rmds

*Get all packages called in vignettes folder*


---

**Description**

Get all packages called in vignettes folder

**Usage**

```
att_from_rmds(
  path = "vignettes",
  pattern = "*.[.](Rmd|rmd|qmd)$",
  recursive = TRUE,
  warn = -1,
  inside_rmd = FALSE,
  inline = TRUE
)

att_from_qmds(
  path = "vignettes",
  pattern = "*.[.](Rmd|rmd|qmd)$",
  recursive = TRUE,
  warn = -1,
  inside_rmd = FALSE,
  inline = TRUE
)
```

**Arguments**

path	path to directory with Rmds or vector of Rmd files
pattern	pattern to detect Rmd files
recursive	logical. Should the listing recurse into directories?
warn	-1 for quiet warnings with purl, 0 to see warnings
inside_rmd	Logical. Whether function is run inside a Rmd, in case this must be executed in an external R session
inline	Logical. Default TRUE. Whether to explore inline code for dependencies.

**Value**

Character vector of packages called with library or require. knitr and rmarkdown are added by default to allow building the vignettes if the directory contains "vignettes" in the path

**Examples**

```
dummyspackage <- system.file("dummyspackage",package = "attachment")
# browseURL(dummyspackage)
att_from_rmds(path = file.path(dummyspackage,"vignettes"))
```

---

att\_from\_rscript      *Look for functions called with :: and library/requires in one script*

---

**Description**

Look for functions called with :: and library/requires in one script

**Usage**

```
att_from_rscript(path)
```

**Arguments**

path	path to R script file
------	-----------------------

**Details**

Calls from pkg::fun in roxygen skeleton and comments are ignored

**Value**

a vector

**Examples**

```
dummyspackage <- system.file("dummyspackage",package = "attachment")
# browseURL(dummyspackage)

att_from_rscript(path = file.path(dummyspackage,"R","my_mean.R"))
```

---

att_from_rscripts	<i>Look for functions called with :: and library/requires in folder of scripts</i>
-------------------	--

---

**Description**

Look for functions called with :: and library/requires in folder of scripts

**Usage**

```
att_from_rscripts(path = "R", pattern = "*.[.](r|R)$", recursive = TRUE)
```

**Arguments**

path	directory with R scripts inside or vector of R scripts
pattern	pattern to detect R script files
recursive	logical. Should the listing recurse into directories?

**Value**

vector of character of packages names found in the R script

**Examples**

```
dummyspackage <- system.file("dummyspackage",package = "attachment")
# browseURL(dummyspackage)

att_from_rscripts(path = file.path(dummyspackage, "R"))
att_from_rscripts(path = list.files(file.path(dummyspackage, "R"), full.names = TRUE))
```

---

att_to_desc_from_is	<i>Amend DESCRIPTION with dependencies from imports and suggests package list</i>
---------------------	---

---

**Description**

Amend DESCRIPTION with dependencies from imports and suggests package list

**Usage**

```
att_to_desc_from_is(
  path.d = "DESCRIPTION",
  imports = NULL,
  suggests = NULL,
  normalize = TRUE,
  must.exist = TRUE
)
```



## Arguments

path.d	path to description file.
imports	character vector of package names to add in Imports section
suggests	character vector of package names to add in Suggests section
normalize	Logical. Whether to normalize the DESCRIPTION file. See <a href="#">desc::desc_normalize()</a>
must.exist	Logical. If TRUE then an error is given if packages do not exist within installed packages. If NA, a warning.

## Details

must.exist is better set to TRUE during package development. This stops the process when a package does not exist on your system. This avoids check errors with typos in package names in DESCRIPTION. When used in CI to discover dependencies, for a bookdown for instance, you may want to set to FALSE (no message at all) or NA (warning for not installed).

## Value

Fill in Description file

## Examples

```
tmpdir <- tempdir()
file.copy(system.file("dummyspackage", package = "attachment"), tmpdir,
  recursive = TRUE)
dummyspackage <- file.path(tmpdir, "dummyspackage")
# browseURL(dummyspackage)
att_to_desc_from_is(path.d = file.path(dummyspackage, "DESCRIPTION"),
  imports = c("magrittr", "attachment"), suggests = c("knitr"))
# In combination with other functions
att_to_desc_from_is(path.d = file.path(dummyspackage, "DESCRIPTION"),
  imports = att_from_rscripts(file.path(dummyspackage, "R")),
  suggests = att_from_rmds(file.path(dummyspackage, "vignettes")))
```

---

create\_dependencies\_file

*Create a dependencies.R in the inst folder*

---

## Description

Create a dependencies.R in the inst folder

**Usage**

```
create_dependencies_file(
  path = "DESCRIPTION",
  field = c("Depends", "Imports"),
  to = "inst/dependencies.R",
  open_file = TRUE,
  ignore_base = TRUE
)
```

**Arguments**

path	path to the DESCRIPTION file
field	DESCRIPTION field to parse, "Import" and "Depends" by default. Can add "Suggests"
to	path to dependencies.R. "inst/dependencies.R" by default
open_file	Logical. Open the file created in an editor
ignore_base	Logical. Whether to ignore package coming with base, as they cannot be installed

**Value**

Used for side effect. Shows a message with installation instructions and creates a R file containing these instructions.

**Examples**

```
tmpdir <- tempdir()
file.copy(system.file("dummyspackage", package = "attachment"), tmpdir,
  recursive = TRUE)
dummyspackage <- file.path(tmpdir, "dummyspackage")
# browseURL(dummyspackage)

create_dependencies_file(path = file.path(dummyspackage, "DESCRIPTION"),
  to = file.path(dummyspackage, "inst/dependencies.R"),
  open_file = FALSE)
```

---

create\_renv\_for\_dev    *Create reproducible environments for your R projects with renv*

---

**Description****[Experimental]**

Tool to create and maintain renv.lock files. The idea is to have 2 distinct files, one for development and the other for deployment. Indeed, although packages like attachment or pkgload must be installed to develop, they are not necessary in your project, package or Shiny application.

**Usage**

```

create_renv_for_dev(
  path = ".",
  dev_pkg = "_default",
  folder_to_include = c("dev", "data-raw"),
  output = "renv.lock",
  install_if_missing = TRUE,
  document = TRUE,
  pkg_ignore = NULL,
  ...
)

create_renv_for_prod(
  path = ".",
  output = "renv.lock.prod",
  dev_pkg = "remotes",
  ...
)

```

**Arguments**

path	Path to your current package source folder
dev_pkg	Vector of packages you need for development. Use <code>_default</code> (with underscore before to avoid confusing with a package name), to use the default list. Use <code>NULL</code> for no extra package. Use <code>attachment:::extra_dev_pkg</code> for the list.
folder_to_include	Folder to scan to detect development packages
output	Path and name of the file created, default is <code>./renv.lock</code>
install_if_missing	Logical. Install missing packages. <code>TRUE</code> by default
document	Logical. Whether to run <code>att_amend_desc()</code> before detecting packages in DESCRIPTION.
pkg_ignore	Vector of packages to ignore from being discovered in your files. This does not prevent them to be in "renv.lock" if they are recursive dependencies.
...	Other arguments to pass to <code>renv::snapshot()</code>

**Value**

a `renv.lock` file

**Examples**

```

## Not run:
create_renv_for_dev()
create_renv_for_dev(dev_pkg = "attachment")
create_renv_for_prod()

## End(Not run)

```

---

find_remotes	<i>Proposes values for Remotes field for DESCRIPTION file based on your installation</i>
--------------	--

---

### Description

Proposes values for Remotes field for DESCRIPTION file based on your installation

### Usage

```
find_remotes(pkg)
```

### Arguments

pkg                    Character. Packages to test for potential non-CRAN installation

### Value

List of all non-CRAN packages and code to add in Remotes field in DESCRIPTION. NULL otherwise.

### Examples

```
# Find from vector of packages
find_remotes(pkg = c("attachment", "desc", "glue"))
# Find from Description file
dummypackage <- system.file("dummypackage", package = "attachment")
att_from_description(
  path = file.path(dummypackage, "DESCRIPTION")) %>%
  find_remotes()
## Not run:
# For the current package directory
att_from_description() %>% find_remotes()

## End(Not run)

# For a specific package name
find_remotes("attachment")

# Find remotes from all installed packages
find_remotes(list.dirs(.libPaths(), full.names = FALSE, recursive = FALSE))
```

---

```
install_from_description  
    Install missing package from DESCRIPTION
```

---

**Description**

Install missing package from DESCRIPTION

**Usage**

```
install_from_description(  
  path = "DESCRIPTION",  
  field = c("Depends", "Imports", "Suggests"),  
  ...  
)
```

**Arguments**

path	path to the DESCRIPTION file
field	DESCRIPTION fields to parse, "Depends", "Imports", "Suggests" by default
...	Arguments to be passed to <code>utils::install.packages()</code>

**Value**

Used for side effect. Installs R packages from DESCRIPTION file if missing.

**Examples**

```
## Not run:  
dummypackage <- system.file("dummypackage", package = "attachment")  
# browseURL(dummypackage)  
  
install_from_description(path = file.path(dummypackage, "DESCRIPTION"))  
  
## End(Not run)
```

---

```
install_if_missing    install packages if missing
```

---

**Description**

install packages if missing

**Usage**

```
install_if_missing(to_be_installed, ...)
```

**Arguments**

to\_be\_installed  
 a character vector containing required packages names  
 ... Arguments to be passed to `utils::install.packages()`

**Value**

Used for side effect. Install missing packages from the character vector input.

**Examples**

```
## Not run:
install_if_missing(c("dplyr", "fcuk", "rusk"))

## End(Not run)
```

---

set\_remotes\_to\_desc *Add Remotes field to DESCRIPTION based on your local installation*

---

**Description**

Add Remotes field to DESCRIPTION based on your local installation

**Usage**

```
set_remotes_to_desc(path.d = "DESCRIPTION", stop.local = FALSE, clean = TRUE)
```

**Arguments**

path.d path to description file.  
 stop.local Logical. Whether to stop if package was installed from local source. Message otherwise.  
 clean Logical. Whether to clean all existing remotes before run.

**Value**

Used for side effect. Adds Remotes field in DESCRIPTION file.

**Examples**

```
tmpdir <- tempdir()
file.copy(system.file("dummypackage", package = "attachment"), tmpdir,
  recursive = TRUE)
dummypackage <- file.path(tmpdir, "dummypackage")
# Add remotes field if there are Remotes locally
att_amend_desc(dummypackage) %>%
  set_remotes_to_desc()
```

```
## Not run:  
# For your current package  
att_amend_desc() %>%  
  set_remotes_to_desc()  
  
## End(Not run)
```

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