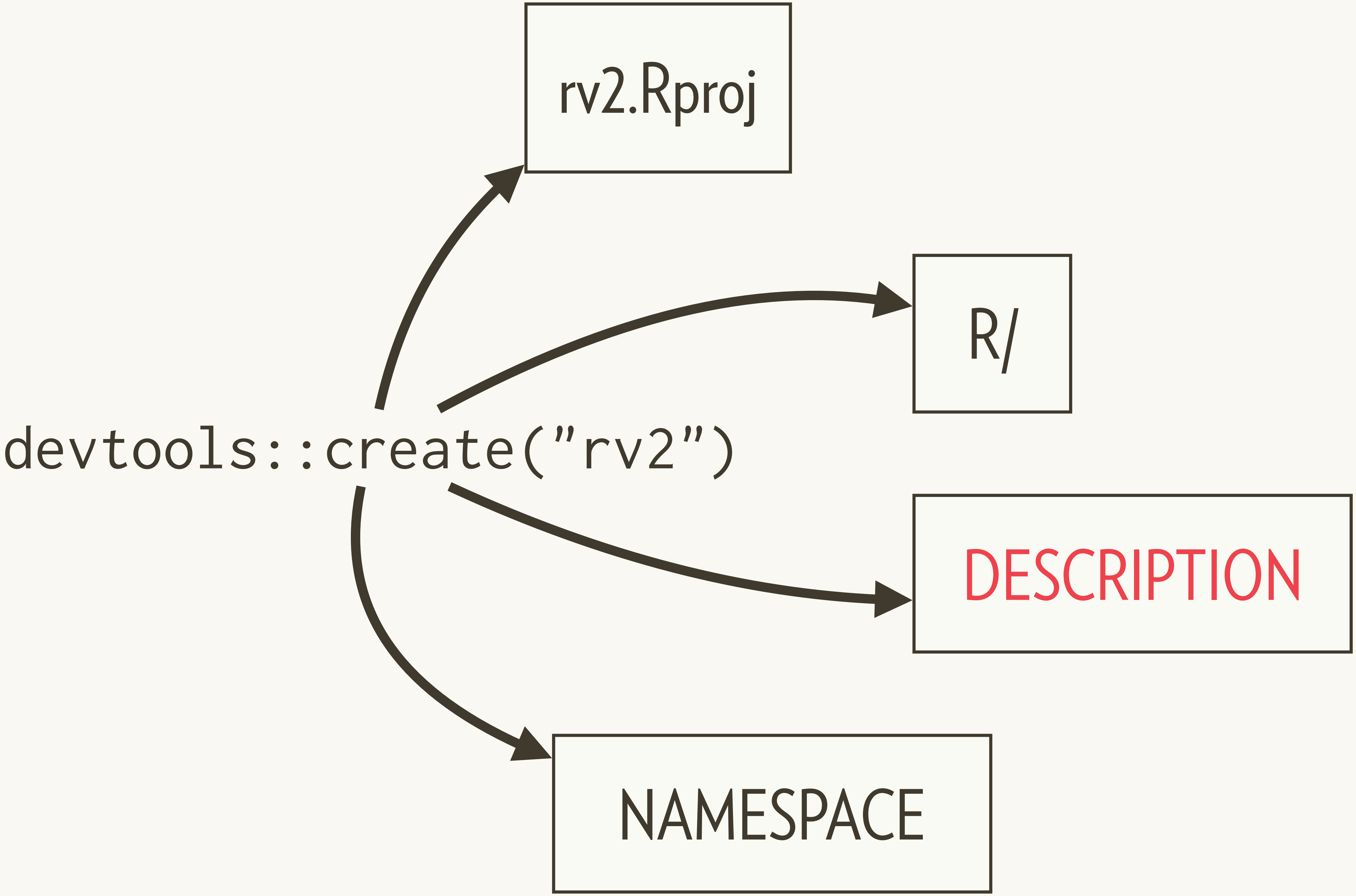
DESCRIPTION

December 2016

Hadley Wickham
@hadleywickham
Chief Scientist, RStudio

What happens we run create?



The default uses a template to get you started

```
Package: rv2
Version: 0.0.0.9000
Title: What The Package Does (one line, title case)
Description: What the package does (one paragraph)
Authors@R:
   person("First", "Last", , "first.last@example.com", c("aut", "cre"))
License: What license is it under?
LazyData: true
Depends: R (>= 3.1.0)
```

If keyboard shortcuts don’t work in RStudio, probably because your package lacks a `DESCRIPTION`

License

There are three main open source licenses

MIT

Free for anyone to do anything with

CC0

“public domain”, best for data packages

GPL

Changes and bundles must also be GPL

These are gross simplifications!

DESCRIPTION:
License: file LICENSE

LICENSE:
Proprietary: do not distribute outside of Widgets Incorporated.

Requirements

I need you!

```
  R (>= 3.0.2) # optional version spec
Imports:
  stringr,
  lubridate
Suggests:
  ggplot2
```

I like having you around

There are three types of dependency

Imports: package is required to for your package to work. Installed automatically.

Suggests: nice to have.
Not installed automatically.

Depends: Basically deprecated; don't use.
(Correct uses exist, but beyond the scope of this class)

Use :: to access functions in imported packages

```
# In DESCRIPTION
Imports: foo

# In bar.R
new_function <- function(x, y, z) {
  foo::bar(x, y) + z
}
```

Must check for presence of suggested packages

```
# In DESCRIPTION
Suggests: foo

# In bar.R
new_function <- function(x, y, z) {
  if (!requireNamespace("foo", quietly = TRUE)) {
    stop("Need foo! Use install.packages('foo').")
  }
  foo::bar(x, y) + z
}
```

Never do this

```
new_function <- function(x, y, z) {
  if (!requireNamespace(”foo”, quietly = TRUE)) {
    install.packages(”foo”)
  }
  foo::bar(x, y) + z
}
```

This is a side effect!

Reasons to use suggests instead of imports

Needed for development
(e.g. testthat)

Package has heavy dependencies
and only needed in special
situations (see ggplot2)

Used in vignettes
or examples

Reasons to use depends instead of imports

This page has been intentionally left blank

```
# use_package() will modify the DESCRIPTION
# and remind you how to use the function.
devtools::use_package(”ggplot2”)
devtools::use_package(”ggplot2”, ”suggests”)

# load_all() will fail if imported packages are
# not installed. Up to you to ensure suggested
# packages have own checks.

# Installs all dependencies (including suggested)
devtools::install_deps(deps = TRUE)
```

~~library(xyz)~~

~~require(xyz)~~

	Error	Returns FALSE
Affects search path	library()	require()
Doesn’t affect search path	loadNamespace()	requireNamespace()