

Welcome

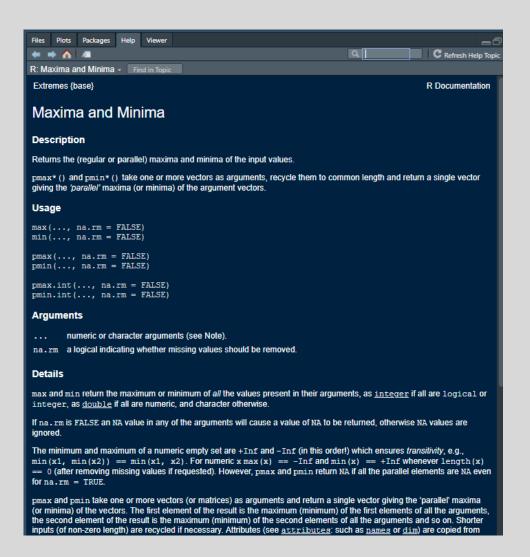
- Documenting Functions with {roxygen2}
- Long-form documentation in R packages
- Checking your R package

DOCUMENTING FUNCTIONS

?functionname

Function manuals

- 1. Describe the function
 - What does it do
 - What does it return
- 2. Identify arguments
 - What goes into the function
 - What are optional
- 3. Show examples



/man folder

- Folder in package
- "R Documentation" format
- ∘ (La)TeX-like
- Can be difficult to write correctly

```
% File src/library/base/man/load.Rd
\name{load}
\alias{load}
\title{Reload Saved Datasets}
\description{
  Reload the datasets written to a file with the function
  \code{save}.
\usage{
load(file, envir = parent.frame())
\arguments{
  \item{file}{a connection or a character string giving the
    name of the file to load.}
  \item{envir}{the environment where the data should be
    loaded.}
\seealso{
  \code{\link{save}}.
\examples{
## save all data
save(list = ls(), file= "all.RData")
```

Roxygen2

- INLINE with package
- Structured comments
 - 1. Title (@title)
 - 2. Description (@description)
 - 3. Arguments (@param)
 - 4. Returns (@return)
 - 5. Examples (@examples)
 - 6. Export (@export)

```
title Add Two numbers
    description adds two numbers together and returns their sum
   Aparam x first number
   Eparam y second number
   @returns numeric value
   @examples
   test_func(1,2)
   test_func(11, 13)
   @export
test_func <- function(x){
  x + y
```

devtools::document()

document

- Updates all Rd files
- Update NAMESPACE files
- Checks outputs make sense
 - Past functions that were exported
- ? Will now work for your functions during development

VIGNETTES

Long form documentation to share with the world how you expect everything to fit together vignette(topic = "base", package = "dplyr") usethis::use_vignette()

usethis::use_vignette("R Package Validation Workshop")

- 1. Creates the "/vignettes folder
- 2. Creates a vignette Rmd file with the appropriate header
- 3. Updates package information
 - adds knitr to the list of suggested packages
 - Adds information around which vignette builder to use to CRAN
- 4. Opens the file

Rendering Vignettes

- Compiled by user with output left in "vignettes" folder
- Compiled when built into bundle
- Compiled on installation (if installing from source code)

CHECK YOURSELF

devtools::check()

Check

- Checks if R can build package
- Checks tests
- Checks documentation
- Returns warnings/errors/notes indicating things to update or fix if it finds any

DEVTOOLS

devtools

- Automates common tasks while developing an R package
 - Parse documentation devtools::document()
 - Evaluate all tests in a package devtools::test()
 - Evaluate a specific test file in a package devtools::test_active_file()
 - Check package for best practices devtools::check()
 - Load all package functions devtools::load_all()
 - Install package from source devtools::install()
 - o Install package from remote source i.e. github devtools::install_github()

devtools.r-lib.org

MATERIALS 02-E2