

R for the Infrequent User

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A Recap of Yesterday



- A Reintroduction to R and RStudio, installation and updates
- Best Practices for a Reproducible Workflow
 - Use an IDE
 - Save the source, not the workspace (but some modular approaches may be necessary)
 - Project-oriented workflows (and using RStudio Projects)
 - Use safe paths and the ``here`` package
 - Use standardized naming conventions and the ``janitor`` package
 - Use a consistent coding style
- Additional Best Practice Tips
 - Leave it in the data frame
 - Tidy Data
 - Going from spreadsheets to coding

A financial candlestick chart with a blue overlay. The chart shows price movement over time with various numerical labels. A white title is centered over the chart.

A Reproducible Report

A photograph of two hikers on a rocky mountain peak. One hiker, wearing a yellow jacket and a backpack, is reaching out to help another hiker, who is wearing a red jacket and a backpack, up the rock. The background shows a cloudy sky. The text "How to get and ask for help" is overlaid in white, with a white underline.

How to get and ask for help



Helping with a function

When you know the name of the function

1. Use the help function

```
help(ggeom_point)
```

2. Use '?'

```
?geom_point
```

When you don't know the name

- Search the R Help files

```
help.search("anova")
```




How to read a Help File

Title

Description

Usage

Arguments

Details

Value

See also

Examples

Typical sections in an
R Help File

<https://www.rstudio.com/resources/cheatsheets/>

[illegible][illegible]

Browse vignettes (if available)

- Can access by the Help page for a package
- Use the ``browseVignettes()`` function
- Access through CRAN page for the package (e.g. [dplyr](#))

Check out demos (if available)

- Use ``demo()`` to list all demos for packages in your library
- ``demo(package = .packages(all.available = TRUE))`` for all available
- Run demo with function and name of the demo
`demo(lm.glm, package = "stats", ask = TRUE)`

Searching for Help

- Use ``apropos()`` function
- ``help.search()`` or ``??``
 - For example: `help.search("date")` is also `??"date"`

Online Help

- CRAN [Help Page](#)
- CRAN FAQ pages
 - [Main](#)
 - [Windows Users](#)
 - [MacOS Users](#)
- [Stack Overflow](#)
- Google
- R Email Lists (through your organization or even [CRAN](#))

reprex (reproducible example)

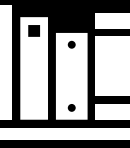
- Your code examples should be:
 - Minimal
 - Complete
 - Reproducible

[How to Make a Great R Reproducible Example](#)
on Stack Overflow is
super informative

A woman with dark hair and glasses, wearing a green jacket and a yellow backpack, is standing in a library aisle. She is reaching up to a high shelf to grab a blue book. The shelves are filled with books of various colors. The background shows more bookshelves and a white wall.

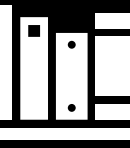
Resources

Online books, workshops, communities



Books (my favorites)

- [R for Data Science](#) by Hadley Wickham & Garrett Grolemund
- [Hands-On Programming with R](#) by Garrett Grolemund
- [Advanced R](#) by Hadley Wickham
- [What They Forgot to Teach You About R](#) by Jennifer Bryan & Jim Hester
- [R Markdown: The Definitive Guide](#) by Yihui Xie, JJ Allaire, & Garrett Grolemund
- [ggplot2: Elegant Graphics for Data Analysis](#) by Hadley Wickham, Danielle Navarro, and Thomas Lin Pedersen
- [Happy Git and GitHub for the useR](#) by Jennifer Bryan, the STAT 545 TAs, and Jim Hester



Books (cont.)

- [ModernDive: Statistical Inference via Data Science](#) by Chester Ismay and Albert Y. Kim
- [R Packages](#) by Hadley Wickham and Jennifer Bryan
- [Getting used to R, RStudio, and R Markdown](#) by Chester Ismay
- [Data Visualization: A Practical Introduction](#) by Kieran Healy
- [Fundamentals of Data Visualization](#) by Claus O. Wilke
- [Learning Statistics with R](#) by Danielle Navarro

...and a whole bunch more! Visit the [RStudio Books](#) page for more!



Online Learning

- [RStudio Education](#) (several levels and resources)
- [Data Analysis and Visualization in R for Ecologists](#) by Francois Michonneau & Auriel Fournier (through Data Carpentry)
- [RStudio.cloud Primers](#) learn by doing
- [STAT545: Data wrangling, exploration, and analysis with R](#) by Jennifer Bryan and the STAT 545 TAs for the University of British Columbia

Community and People

- [RStudio Community Forums](#)
- [R4DS community](#) - Be sure to join the slack channel
- [ROpenSci](#)
- [Tidy Tuesday](#)
- [R-Ladies](#) (New Orleans, Gainesville, Orlando, Tampa)
- Twitter #rstats, #r4ds, etc.
- Facebook Groups
- Email listservs

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