

Keyboard shortcuts

Insert assignment operator, <:-: Command+Enter (Ctrl+Enter on Windows)

Insert pipe operator, %>%: Alt+- (dash)

Cancel / get unstuck: Escape key. If you forget to close a paranthesis, quote, etc., and your R prompt shows + instead of >, focus cursor on console, and hit the Escape key.

General setup / options

- Tools, Global Options:
 - Uncheck “Restore .RData into workspace at startup”
 - Set to *Never*: “Save workspace to .RData on exit: Never”
- Use Projects! Create a project with *File – New Project*.
 - This creates a **.Rproj** file. This is just a metadata file that opens R *running in that folder* so R is running where your data lives.
 - *File – New File – New R Script* creates a new R script in your project folder. Save this script and write commands in a script. Use new scripts for new tasks/classes.

Packages

If you don't have a particular package installed already: `install.packages(packagename)`. Only **dplyr**, **readr**, and **tidyr** are strictly required. Load packages in each script each time you start R/RStudio.

```
library(dplyr)
library(readr)
library(tidyr)
```

dplyr verbs

- **filter()**: Limits *rows* – returns only rows matching conditions
- **select()**: Limits *columns* based on name, position, etc.
- **mutate()**: Adds new variables, modifies existing variables
- **arrange()**: Arranges data in ascending order (use `desc(var)` to arrange descending)
- **summarize()**: Reduces multiple values down to a single value
- **group_by()**: Groups a data.frame/tibble by one or more variables. Most useful with `summarize()`.

The pipe: %>%

When you load the **dplyr** library you can use `%>%`, the *pipe*. Running `x %>% f(args)` is the same as `f(x, args)`. If you wanted to run function `f()` on data `x`, then run function `g()` on that, then run function `h()` on that result: instead of nesting multiple functions, `h(g(f(x)))`, it's preferable and more readable to create a chain or pipeline of functions: `x %>% f() %>% g() %>% h()`. Pipelines can be spread across multiple lines, with each line ending in `%>%` until the pipeline terminates. The keyboard shortcut for inserting `%>%` is Cmd+Shift+M on Mac, Ctrl+Shift+M on Windows.