RStudio IDE : : **CHEAT SHEET**

Documents and Apps

Open Shiny, R Markdown, knitr, Sweave, LaTeX, .Rd files and more in Source Pane

- **Check spelling**
- **Render output**
- **Choose output format**
- **Configure render options**
- **Insert code chunk**
- **Publish to server**

- Jump to previous chunk
- Jump to next chunk
- Run code
- Show file outline
- Visual Editor (reverse side)
- Jump to section or chunk
- Run this and all previous code chunks
- Run this code chunk
- Set knitr chunk options

Access markdown guide at **Help > Markdown Quick Reference**
See reverse side for more on **Visual Editor**

RStudio recognizes that files named **app.R**, **server.R**, **ui.R**, and **global.R** belong to a shiny app

- Run app
- Choose location to view app
- Publish to shinyapps.io or server
- Manage publish accounts

Package Development

Create a new package with
File > New Project > New Directory > R Package

Enable roxygen documentation with
Tools > Project Options > Build Tools

Roxygen guide at **Help > Roxygen Quick Reference**
See package information in the **Build Tab**

- Install package and restart R
- Run devtools::load_all() and reload changes

- Run R CMD check
- Customize package build options
- Load All ^⇧L
- Clean and Rebuild
- Test Package ⌥⌘T
- Check Package ⌥⌘E
- Build Source Package
- Build Binary Package
- Configure Build Tools...
- Clear output and rebuild
- Run package tests

Source Editor

- Navigate backwards/forwards
- Open in new window
- Save
- Find and replace
- Compile as notebook
- Run selected code

- Re-run previous code
- Source with or w/out Echo or as a Local Job
- Show file outline
- Multiple cursors/column selection with **Alt + mouse drag**.
- Code diagnostics that appear in the margin. Hover over diagnostic symbols for details.
- Syntax highlighting based on your file's extension
- Tab completion to finish function names, file paths, arguments, and more.
- Multi-language code snippets to quickly use common blocks of code.
- Jump to function in file
- Change file type

```
# Good Start...
"P0030001"
"P0030002"
"P0030003"
"P0030004"

get_digit <- function() {
  ("num" %% (10 ^ n))
  %/% (10 ^ (n - 1))
}}

fo
for    {snippet}
for    {base}
force  {base}
```

- Working Directory
- Run scripts in separate sessions
- Maximize, minimize panes
- Ctrl/Cmd + ↑ to see history
- R Markdown Build Log
- Drag pane boundaries

```
R 4.1.0 · ~/Desktop/app/
[1] 3
> 2 + 3
[2 + 3
> 3 + 4
> View(mtcars)
>
```

Tab Panes

- **Import data** with wizard
- History of past commands to run/copy
- Manage external databases
- View memory usage
- R tutorials

- Load workspace
- Save workspace
- Clear R workspace
- Search inside environment
- Choose environment to display from list of parent environments
- Display objects as list or grid
- Displays saved objects by type with short description
- View in data viewer
- View function source code

Data		
df	3 obs. of 2 variables	
Values		
x	1	
Functions		
foo	function (x)	

- Create folder
- Delete file
- Rename file
- More file options
- Change directory
- Path to displayed directory
- A File browser keyed to your working directory. Click on file or directory name to open.

More file options:
- Copy...
- Copy To...
- Move...
- Copy Folder Path to Clipboard
- Set As Working Directory
- Go To Working Directory
- Open New Terminal Here
- Show Folder in New Window
- Show Hidden Files

Version Control

Turn on at **Tools > Project Options > Git/SVN**

- **A** Added
- **D** Deleted
- **M** Modified
- **R** Renamed
- **?** Untracked

- Stage files:
- Commit staged files
- Push/Pull to remote
- View History
- Current branch
- Open shell to type commands
- Show file diff to view file differences

Debug Mode

Use **debug()**, **browser()**, or a breakpoint and execute your code to open the debugger mode.

- Launch debugger mode from origin of error
- Open traceback to examine the functions that R called before the error occurred

```
> hello()
Error
```
- Show Traceback
- Rerun with Debug

- Click next to line number to add/remove a breakpoint.
- Highlighted line shows where execution has paused

- Run commands in environment where execution has paused
- Examine variables in executing environment
- Select function in traceback to debug

- **Next**: Step through code one line at a time
- Step into and out of functions to run
- **Continue**: Resume execution
- **Stop**: Quit debug mode

RStudio opens plots in a dedicated Plots pane

- Navigate recent plots
- Open in window
- **Export plot**
- Delete plot
- Delete all plots

GUI Package manager lists every installed package

	Name	Description	Version
☐	tibble	Simple Data Frames	3.1.2
☑	tidyr	Tidy Messy Data	1.1.3

- Install Packages
- Update Packages
- Browse package site
- Click to load package with **library()**. Unclick to detach package with **detach()**
- Package version installed
- Delete from library

RStudio opens documentation in a dedicated Help pane

- Home page of helpful links
- Search within help file
- Search for help file

Viewer Pane displays HTML content, such as Shiny apps, RMarkdown reports, and interactive visualizations

- Stop Shiny app
- Publish to shinyapps.io, rpubs, RSConnect, ...
- Refresh

View(<data>) opens spreadsheet like view of data set

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am
Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1
Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1

- Filter rows by value or value range
- Sort by values
- Search for value

Keyboard Shortcuts

RUN CODE
	Windows/Linux	Mac
Search command history	Ctrl+⬆	Cmd+⬆
Interrupt current command	Esc	Esc
Clear console	Ctrl+L	Ctrl+L

NAVIGATE CODE
Go to File/Function	Ctrl+.	Ctrl+.

WRITE CODE
Attempt completion	Tab or Ctrl+Space	Tab or Cmd+Space
Insert <- (assignment operator)	Alt+-	Option+-
Insert %>% (pipe operator)	Ctrl+Shift+M	Cmd+Shift+M
(Un)Comment selection	Ctrl+Shift+C	Cmd+Shift+C

MAKE PACKAGES
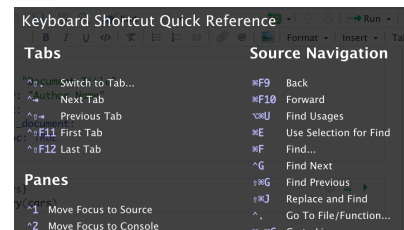|	Windows/Linux	Mac
Load All (devtools)	Ctrl+Shift+L	Cmd+Shift+L
Test Package (Desktop)	Ctrl+Shift+T	Cmd+Shift+T
Document Package	Ctrl+Shift+D	Cmd+Shift+D

DOCUMENTS AND APPS
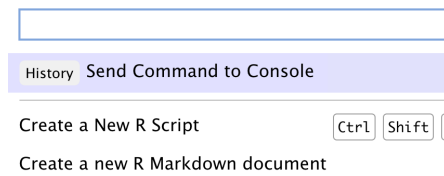|		
Knit Document (knitr)	Ctrl+Shift+K	Cmd+Shift+K
Insert chunk (Sweave & Knitr)	Ctrl+Alt+I	Cmd+Option+I
Run from start to current line	Ctrl+Alt+B	Cmd+Option+B
Run the current code section	Ctrl+Alt+T	Cmd+Option+T

MORE KEYBOARD SHORTCUTS
Keyboard Shortcuts Help	Alt+Shift+K	Option+Shift+K
Show Command Palette	Ctrl+Shift+P	Cmd+Shift+P

View the Keyboard Shortcut Quick Reference with **Tools > Keyboard Shortcuts** or **Alt/Option + Shift + K**

Search for keyboard shortcuts with **Tools > Show Command Palette** or **Ctrl/Cmd + Shift + P**.

Visual Editor

RStudio Workbench

WHY RSTUDIO WORKBENCH?
Extend the open source server with a commercial license, support, and more:

- open and run multiple R sessions at once
- tune your resources to improve performance
- administrative tools for managing user sessions
- collaborate real-time with others in shared projects
- switch easily from one version of R to a different version
- integrate with your authentication, authorization, and audit practices
- work in the RStudio IDE, JupyterLab, Jupyter Notebooks, or VS Code

Download a free 45 day evaluation at **www.rstudio.com/products/workbench/evaluation/**

Share Projects

File > New Project

RStudio saves the call history, workspace, and working directory associated with a project. It reloads each when you re-open a project.

Run Remote Jobs

Run R on remote clusters (Kubernetes/Slurm) via the Job Launcher

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