RStudio IDE :: **CHEATSHEET**

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 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}
```

Console | Terminal | R Markdown | Jobs

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

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

RStudio opens plots in a dedicated **Plots** pane

Files | Plots | Packages | Help | Viewer
Zoom | Export | Publish

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

GUI **Package** manager lists every installed package

Files | Plots | Packages | Help | Viewer
Install | Update

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

Tab Panes

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

Environment | History | Connections | Build | Git | Tutorial
Import Dataset | 148 MiB | List

R · Global Environment

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

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

Displays saved objects by type with short description
View in data viewer
View function source code

Files | Plots | Packages | Help | Viewer
New Folder | Delete | Rename | More

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

More file options

Create folder
Delete file
Rename file
Change directory

Path to displayed directory

Name | Modified
app.R | Jul 10, 2021, 6:21 PM
app.Rproj | 303 B | Jul 10, 2021, 4:51 PM

A File browser keyed to your working directory. Click on file or directory name to open.

RStudio opens documentation in a dedicated **Help** pane

Files | Plots | Packages | Help | Viewer
R: Render R Markdown | Find in Topic | Refresh Help Topic

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

Files | Plots | Packages | Help | Viewer
Publish

Stop Shiny app
Publish to shinyapps.io, Posit Connect, Posit Cloud,...
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

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

Environment | History | Connections | Build | Git | Tutorial
Diff | Commit | (no branch)

Staged | Status | Path
? | .gitignore
A M | app.R

Open shell to type commands

Show file diff to view file differences

Changes | History | (no branch) | Stage | Revert | Ignore | Pull | Push

Staged | Status | Path
| | .gitignore
A M | app.R
A M | app.Rproj

Commit message
Amend previous commit
Commit

Show | Staged | Unstaged | Context 5 lines | Ignore Whitespace | Stage All | Discard All

@@ -1,13 +1,11 @@
1 | #
| # This is a Shiny web application. You can run the application by clicking

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

Console | Terminal | Jobs

> 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

Console | Terminal | Jobs

Next
Continue
Stop

Step through code one line at a time
Step into and out of functions to run
Resume execution
Quit debug mode

Keyboard Shortcuts

RUN CODE	Windows/Linux	Mac
Search command history	Ctrl+**arrow-up**	Cmd+**arrow-up**
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 Ctrl+Space
Insert <− (assignment operator)	Alt+-	Option+-
Insert |> or %>% (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	Windows/Linux	Mac
Knit/Render 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

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

Check spelling · Render output · Choose output format · Choose output location · Insert code chunk · Jump to previous chunk · Jump to next chunk · Run selected lines · Publish to server · Show file outline · Back to Source Editor (front page)

Block format · Heading 2 · Lists and block quotes · Links · Citations · Images · More formatting · Insert blocks, citations, equations, and special characters · Insert and edit tables · File outline · R Markdown Including Plots

Clear formatting · Insert verbatim code

Jump to chunk or header · Set knitr chunk options · Run this and all previous code chunks · Run this code chunk · Add/Edit attributes

```
---
title: "Document Title"
author: "Author Name"
output:
  html_document:
    toc: TRUE
---
```

```
{r setup, include=FALSE}
knitr::opts_chunk$set(echo = TRUE)
```

R Markdown

This is an R Markdown document.
Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents.

```
{r cars}
summary(cars)
```

Posit Workbench

WHY POSIT 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 **posit.co/products/enterprise/workbench/**

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.

Start **new R Session** in current project · Close R Session in project · Active shared collaborators · Name of current project · **Select R Version**

Create a New R Script — Ctrl Shift N · Create a new R Markdown document

New Project...
Open Project...
Close Project
Share Project...
IDEcheatsheet
RStudio-Essentials
Essentials
shiny-examples
Clear Project List
Project Options...

Share Project with Collaborators

R version 3.2.2
R version 3.1.3
R version 3.0.3
R version 2.15.3

Run Remote Jobs

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

Monitor launcher jobs · Launch a job · Run launcher jobs remotely

Source — ⇧⌘S
Source with Echo — ⇧⌘↵
Source as Launcher Job...
Source as Local Job...

fast.R	Running	Local	0:09	
sleepy.R	Succeeded 11:22 AM	Local	0:41	
sleepy.R	Idle	KubernetesX	Waiting	