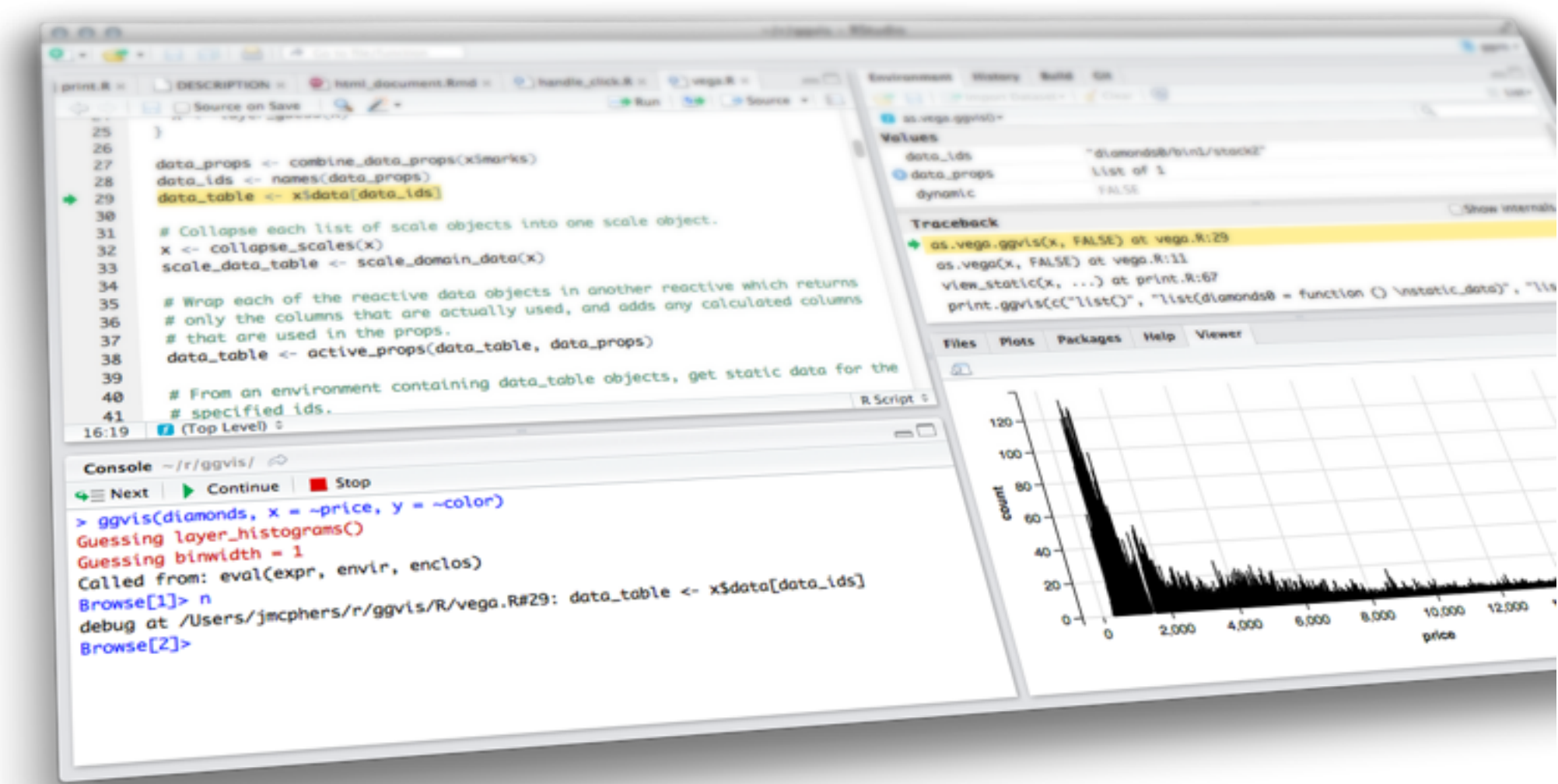


RStudio Essentials

Managing Change 1: Projects



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Series

1. Writing Code (12/2)
2. Debugging Code (12/9)
3. Writing Packages (12/16)
- 4. Efficiency with Projects (1/6)**
5. Version control, collaboration with Git (1/20)
6. Reproducibility with Packrat (2/3)

[**www.rstudio.com/resources/webinars/**](http://www.rstudio.com/resources/webinars/)


RStudio IDE Cheatsheet

www.rstudio.com/resources/cheatsheets/


RStudio IDE Cheat Sheet

learn more at www.rstudio.com


The RStudio IDE is an integrated Development Environment in R that comes in three versions



Desktop IDE
A local version of the IDE for your desktop



Open Source Server
for larger compute resources and remote access



Professional Server
for teams that share large compute resources, large data, and uniform environments for collaboration

Download all at www.rstudio.com. Each provides the same useful interface:

Documents and Apps

- Open Shiny, R Markdown, knitr, Sweave, LaTeX, Rd files and more in Source Pane
- Check spelling
- Render output
- Choose output format
- Choose output location
- Insert code chunk
- Jump to chunk
- Jump to previous chunk
- Jump to next chunk
- Run selected chunk
- Run all chunks
- Publish to server
- Show file outline
- Access markdown guide at [Help > Markdown Quick Reference](#)
- Jump to chunk
- Set knitr Run this and all previous code chunks
- Run chunk
- Run app
- Choose Publish location to shinyapps.io or server
- Manage publish accounts

Write Code

- Navigate tabs
- Open in new window
- Save
- Find and replace
- Compile as notebook
- Run selected code
- Multiple cursors/column selection with **Alt + mouse drag**
- Re-run previous code
- Source with or without Echo
- Show file outline
- 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.
- Change file type
- Jump to function in file
- Change directory
- Working Directory
- Maximize, minimize panes
- Press **Alt +** to see command history
- Drag pane boundaries

R Support

- Import data file with wizard
- History of past commands to run/add to source
- Display RPres slideshows
- File > New File > R Presentation
- Load workspace
- Save workspace
- Delete all saved objects
- 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
- Create folder
- Upload file
- Delete file
- Rename file
- Path to displayed directory
- A file browser keyed to your working directory. Click on file or directory name to open.

RStudio Pro Features

- Share Project with Collaborators
- Active shared collaborators
- Start new R Session in current project
- Select R Version
- Project System
- 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.
- RStudio opens plots in a dedicated Plots pane
- Navigate recent plots
- Open in recent window
- Export plot
- Delete plot
- Delete all plots
- GUI Package manager lists every installed package
- Install Packages
- Update Packages
- Create reproducible package
- Package library for your project
- Click to load package with **library()**. Unlick 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, RSCloud, etc.
- Refresh
- View (data) opens spreadsheet like view of data set
- Filter rows by value
- Sort by values
- Search for value

Debug Mode

- Open with **debug()**, **browser()**, or a breakpoint. RStudio will open the debugger mode when it encounters a breakpoint while executing code.
- Launch debugger mode from origin of error
- Open traceback to examine the functions that R called before the error occurred
- 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
- Step through code one line at a time
- Step into and out of functions to run
- Resume execution
- Quit debug mode

Version Control with Git or SVN

- Turn on at **Tools > Project Options > Git/SVN**
- Stage files
- Show file diff
- Commit staged files
- Push/Pull to remote
- View History
- Added
- Deleted
- Modified
- Renamed
- Untracked
- Open shell to type commands
- current branch

Package Writing

- File > New Project > New Directory > R Package
- Turn project into package.
- Enable roxygen documentation with **Tools > Project Options > Build Tools**
- Roxygen guide at [Help > Roxygen Quick Reference](#)

1 LAYOUT

	Windows/Linux	Mac
Move focus to Source Editor	Ctrl+1	Ctrl+1
Move focus to Console	Ctrl+2	Ctrl+2
Move focus to Help	Ctrl+3	Ctrl+3
Show History	Ctrl+4	Ctrl+4
Show Files	Ctrl+5	Ctrl+5
Show Plots	Ctrl+6	Ctrl+6
Show Packages	Ctrl+7	Ctrl+7
Show Environment	Ctrl+8	Ctrl+8
Show Git/SVN	Ctrl+9	Ctrl+9
Show Build	Ctrl+0	Ctrl+0

2 RUN CODE

	Windows/Linux	Mac
Search command history	Ctrl+↑	Cmd+↑
Navigate command history	↑/↓	↑/↓
Move cursor to start of line	Home	Cmd+←
Move cursor to end of line	End	Cmd+→
Change working directory	Ctrl+Shift+H	Cmd+Shift+H
Interrupt current command	Esc	Esc
Clear console	Ctrl+L	Ctrl+L
Quit Session (desktop only)	Ctrl+Q	Cmd+Q
Restart R Session	Ctrl+Shift+F10	Cmd+Shift+F10
Run current line/selection	Ctrl+Enter	Cmd+Enter
Run current (retain cursor)	Alt+Enter	Option+Enter
Run from current to end	Ctrl+Alt+E	Cmd+Option+E
Run the current function	Ctrl+Alt+F	Cmd+Option+F
Source a file	Ctrl+Shift+O	Cmd+Shift+O
Source the current file	Ctrl+Shift+S	Cmd+Shift+S
Source with echo	Ctrl+Shift+Enter	Cmd+Shift+Enter

3 NAVIGATE CODE

	Windows/Linux	Mac
Goto File/Function	Ctrl+.	Ctrl+.
Fold Selected	Alt+L	Cmd+Option+L
Unfold Selected	Shift+Alt+L	Cmd+Shift+Option+L
Fold All	Alt+O	Cmd+Option+O
Unfold All	Shift+Alt+O	Cmd+Shift+Option+O
Go to line	Shift+Alt+G	Cmd+Shift+Option+G
Jump to	Shift+Alt+J	Cmd+Shift+Option+J
Switch to tab	Ctrl+Shift+.	Ctrl+Shift+.
Previous tab	Ctrl+F11	Ctrl+Shift+F11
Next tab	Ctrl+F12	Ctrl+Shift+F12
First tab	Ctrl+Shift+F11	Ctrl+Shift+F11
Last tab	Ctrl+Shift+F12	Ctrl+Shift+F12
Navigate back	Ctrl+F9	Cmd+F9
Navigate forward	Ctrl+F10	Cmd+F10
Jump to Brace	Ctrl+P	Ctrl+P
Select within Braces	Ctrl+Shift+Alt+E	Ctrl+Shift+Alt+E
Use Selection for Find	Ctrl+F3	Cmd+E
Find in Files	Ctrl+Shift+F	Cmd+Shift+F
Find Next	Win: F3, Linux: Ctrl+G	Cmd+G
Find Previous	Win: Shift+F3, L: Ctrl+Shift	Cmd+Shift+G
Jump to Word	Ctrl+↩	Option+↩
Jump to Start/End	Ctrl+↩/↪	Cmd+↩/↪

4 WRITE CODE

	Windows/Linux	Mac
Attempt completion	Tab or Ctrl+Space	Tab or Cmd+Space
Navigate candidates	↑/↓	↑/↓
Accept candidate	Enter, Tab, or →	Enter, Tab, or →
Dismiss candidates	Esc	Esc
Undo	Ctrl+Z	Cmd+Z
Redo	Ctrl+Shift+Z	Cmd+Shift+Z
Cut	Ctrl+X	Cmd+X
Copy	Ctrl+C	Cmd+C
Paste	Ctrl+V	Cmd+V
Select All	Ctrl+A	Cmd+A
Delete Line	Ctrl+D	Cmd+D
Select	Shift+[Arrow]	Shift+[Arrow]
Select to Line Start	Alt+Shift+←	Cmd+Shift+←
Select to Line End	Alt+Shift+→	Cmd+Shift+→
Select Page Up/Down	Shift+PageUp/Down	Shift+PageUp/Down
Select to Start/End	Shift+Alt+↩/↪	Shift+Alt+↩/↪
Delete Word Left	Ctrl+Backspace	Option+Delete
Delete to Line End		Option+Backspace
Delete to Line Start	Tab (at start of line)	Tab (at start of line)
Outdent	Shift+Tab	Shift+Tab
Yank line up to cursor	Ctrl+U	Ctrl+U
Yank line after cursor	Ctrl+Y	Ctrl+Y
Insert yanked text	Ctrl+Y	Ctrl+Y
Insert %<%	Alt+%	Option+%
Show help for function	Ctrl+Shift+M	Cmd+Shift+M
Show source code	F2	F2
New document	Ctrl+Shift+N	Cmd+Shift+N
New document (Chrome)	Ctrl+Alt+Shift+N	Cmd+Shift+Alt+N
Open document	Ctrl+O	Cmd+O
Save document	Ctrl+S	Cmd+S
Close document	Ctrl+W	Cmd+W
Close document (Chrome)	Ctrl+Alt+W	Cmd+Option+W
Close all documents	Ctrl+Shift+W	Cmd+Shift+W
Extract function	Ctrl+Alt+X	Cmd+Option+X
Extract variable	Ctrl+Alt+V	Cmd+Option+V
Reindent lines	Ctrl+I	Cmd+I
(Un)Comment lines	Ctrl+Shift+C	Cmd+Shift+C
Reflow Comment	Ctrl+Shift+I	Cmd+Shift+I
Reformat Selection	Ctrl+Shift+A	Cmd+Shift+A
Select within braces	Ctrl+Shift+E	Cmd+Shift+E
Show Diagnostics	Ctrl+Shift+Alt+P	Cmd+Shift+Alt+P
Transpose Letters	Ctrl+T	Cmd+T
Move Lines Up/Down	Alt+↕	Option+↕
Copy Lines Up/Down	Shift+Alt+↕	Cmd+Option+↕
Add New Cursor Above	Ctrl+Alt+Up	Ctrl+Alt+Up
Add New Cursor Below	Ctrl+Alt+Down	Ctrl+Alt+Down
Move Active Cursor Up	Ctrl+Alt+Shift+Up	Ctrl+Alt+Shift+Up
Move Active Cursor Down	Ctrl+Alt+Shift+Down	Ctrl+Alt+Shift+Down
Find and Replace	Ctrl+F	Cmd+F
Use Selection for Find	Ctrl+F3	Cmd+E
Replace and Find	Ctrl+Shift+J	Cmd+Shift+J

5 DEBUG CODE

	Windows/Linux	Mac
Toggle Breakpoint	Shift+F9	Shift+F9
Execute Next Line	F10	F10
Step Into Function	Shift+F4	Shift+F4
Finish Function/Loop	Shift+F5	Shift+F5
Continue	Shift+F8	Shift+F8
Stop Debugging		

6 VERSION CONTROL

	Windows/Linux	Mac
Show diff	Ctrl+Alt+D	Ctrl+Option+D
Commit changes	Ctrl+Alt+M	Ctrl+Option+M
Scroll diff view	Ctrl+↕	Ctrl+↕
Stage/Unstage (Git)	Spacebar	Spacebar
Stage/Unstage and move to next	Enter	Enter

7 MAKE PACKAGES

	Windows/Linux	Mac
Build and Reload	Ctrl+Shift+B	Cmd+Shift+B
Load All (devtools)	Ctrl+Shift+L	Cmd+Shift+L
Test Package (Desktop)	Ctrl+Shift+T	Cmd+Shift+T
Test Package (Web)	Ctrl+Alt+F7	Cmd+Alt+F7
Check Package	Ctrl+Shift+E	Cmd+Shift+E
Document Package	Ctrl+Shift+D	Cmd+Shift+D

8 DOCUMENTS AND APPS

	Windows/Linux	Mac
Preview HTML (Markdown, etc.)	Ctrl+Shift+K	Cmd+Shift+K
Knit Document (knitr)	Ctrl+Shift+K	Cmd+Shift+K
Compile Notebook	Ctrl+Shift+K	Cmd+Shift+K
Compile PDF (TeX and Sweave)	Ctrl+Shift+K	Cmd+Shift+K
Insert chunk (Sweave and Knitr)	Ctrl+Alt+I	Cmd+Option+I
Insert code section	Ctrl+Shift+R	Cmd+Shift+R
Re-run previous region	Ctrl+Shift+P	Cmd+Shift+P
Run current document	Ctrl+Alt+R	Cmd+Option+R
Run from start to current line	Ctrl+Alt+B	Cmd+Option+B
Run the current code section	Ctrl+Alt+T	Cmd+Option+T
Run previous Sweave/Rmd code	Ctrl+Alt+P	Cmd+Option+P
Run the current chunk	Ctrl+Alt+C	Cmd+Option+C
Run the next chunk	Ctrl+Alt+N	Cmd+Option+N
Sync Editor & PDF Preview	Ctrl+F8	Cmd+F8

Why RStudio Server Pro?

Do everything you would do with the open source server with a commercial license, support, and more.

- edit the same project at the same time as others
- switch easily from one version of R to a different version
- open and run multiple R sessions simultaneously
- see what you and others are doing on your server
- tune your resources to improve performance
- integrate with your authentication, authorization, and audit practices

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