



Hello Positron

Part of "Doing data science in Positron" workshop

Posit, PBC



bit.ly/positron-umn

Install Positron

- Latest released version: <https://positron.posit.co/download>
- Latest pre-release: <https://github.com/posit-dev/positron/releases>
 - Latest pre-release is 2026.02.1-5

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Department of Statistical Science

Duke University

Developer Educator

Posit, PBC

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 @minecr.bsky.social

 @minec

hello.qmd — positron-workshop

New Open File Search R 4.4.2 positron-workshop

SESSION CONNECTIONS HELP VIEWER

hello.qmd X

Preview Render on Save Source Visual Insert Code Cell ...

hello.qmd > Meet the penguins

```
1 ---  
2 title: "Hello, Quarto"  
3 format: html  
4 editor: visual  
5 ---  
6 > Run Cell | Run Next Cell  
7 ```{r}  
8 #| label: load-packages  
9 #| include: false  
10  
11 library(tidyverse)  
12 library(palmerpenguins)  
13 ...  
14  
15 ## Meet Quarto  
16  
17 Quarto enables you to weave together content and executable code into a finished document.  
18 To learn more about Quarto see https://quarto.org.  
19  
20 ## Meet the penguins  
21  
22 {style="float:right;" fig-alt="Illustration of three species of Palmer Archipelago penguins: Chinstrap, Gentoo, and Adelie. Artwork by @allison_horst." width="401"}  
23  
24 The `penguins` data from the palmerpenguins(https://allisonhorst.github.io/palmerpenguins R package) package contains size measurements for `r nrow(penguins)` penguins from three species observed on three islands in the Palmer Archipelago, Antarctica.  
25
```

CONSOLE TERMINAL PROBLEMS OUTPUT PORTS DEBUG CONSOLE + - ×

main ↵ 0↓ 1↑ ⌂ 0 ⌃ 0 Quarto: 1.7.31 Ln 22, Col 238 Spaces: 2 UTF-8 LF () Quarto Q

Hello, Quarto

Meet Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

Meet the penguins



The `penguins` data from the [palmerpenguins](#) package contains size measurements for 344 penguins from three species observed on three islands in the Palmer Archipelago, Antarctica.

The plot below shows the relationship between

Positron is ...

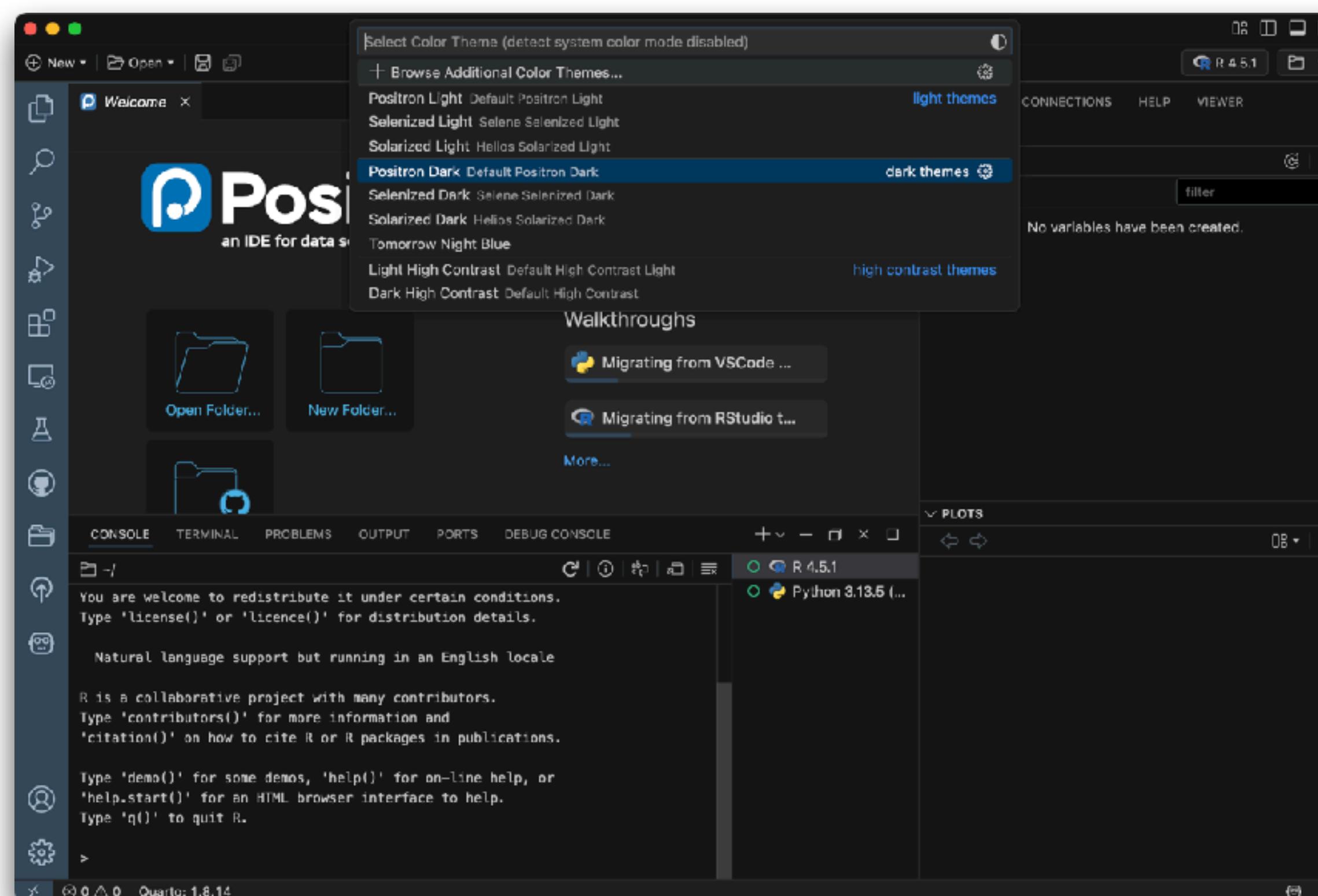
- A next-generation **data science** IDE
- A tool for writing code **and** exploring data
- Familiar (RStudio-ish) and extensible (soft fork of VS Code)
- Multilingual data science: R and Python (as of today)
- Plots, variables, console, help, viewer, data explorer

Should I switch from RStudio to Positron?

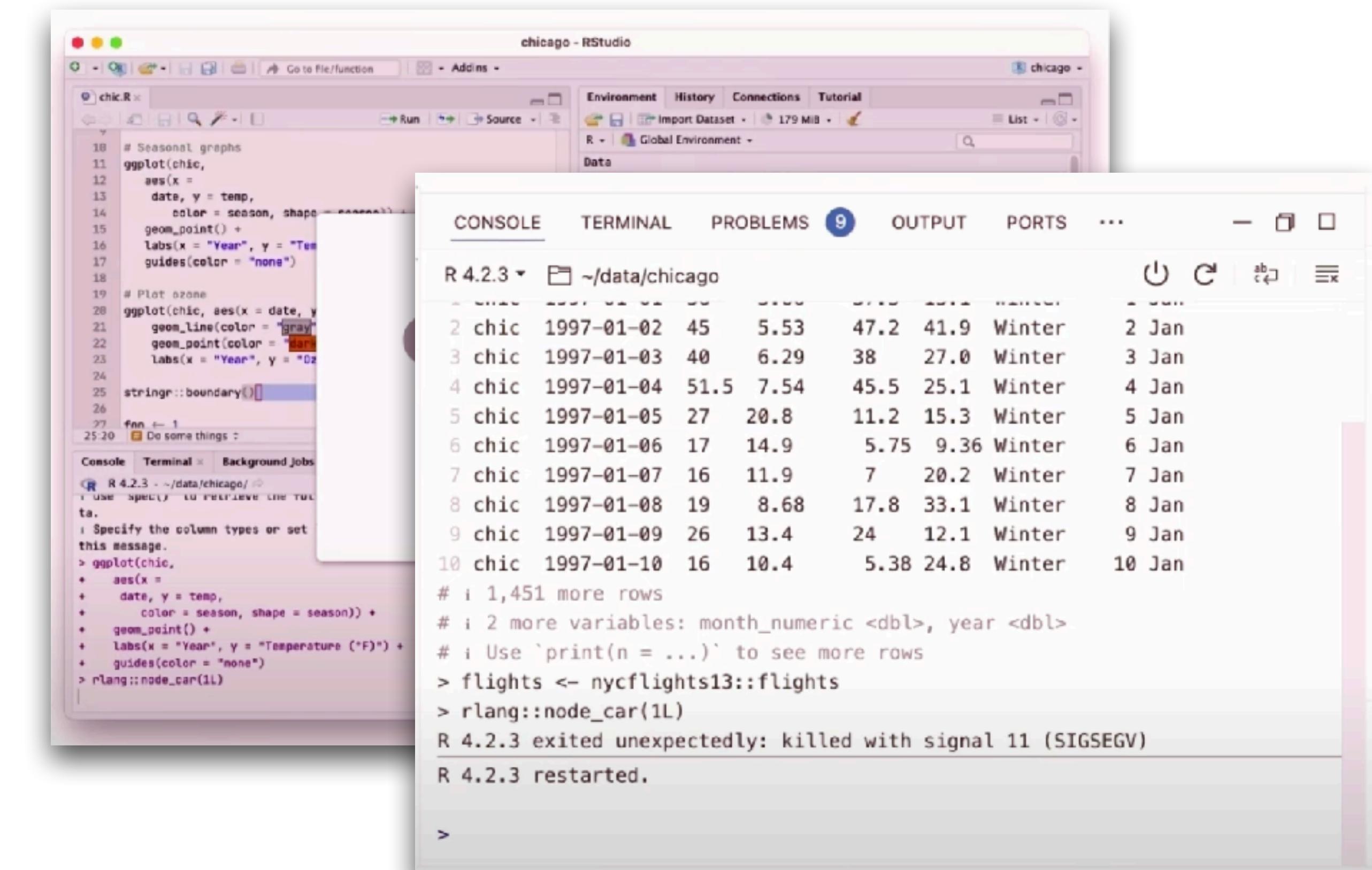
- It's still early days for Positron! Are you happy as an early adopter?
- RStudio is not going away. >10 years of engineering has gone into RStudio. It's very stable and completely built-out.
- If you work in both R and Python (or any other language), Positron is probably a good fit.
- If you like to customize your working environment, you'll appreciate the extension ecosystem and the possibility of creating your own.

Why didn't you just do {this other thing} ?

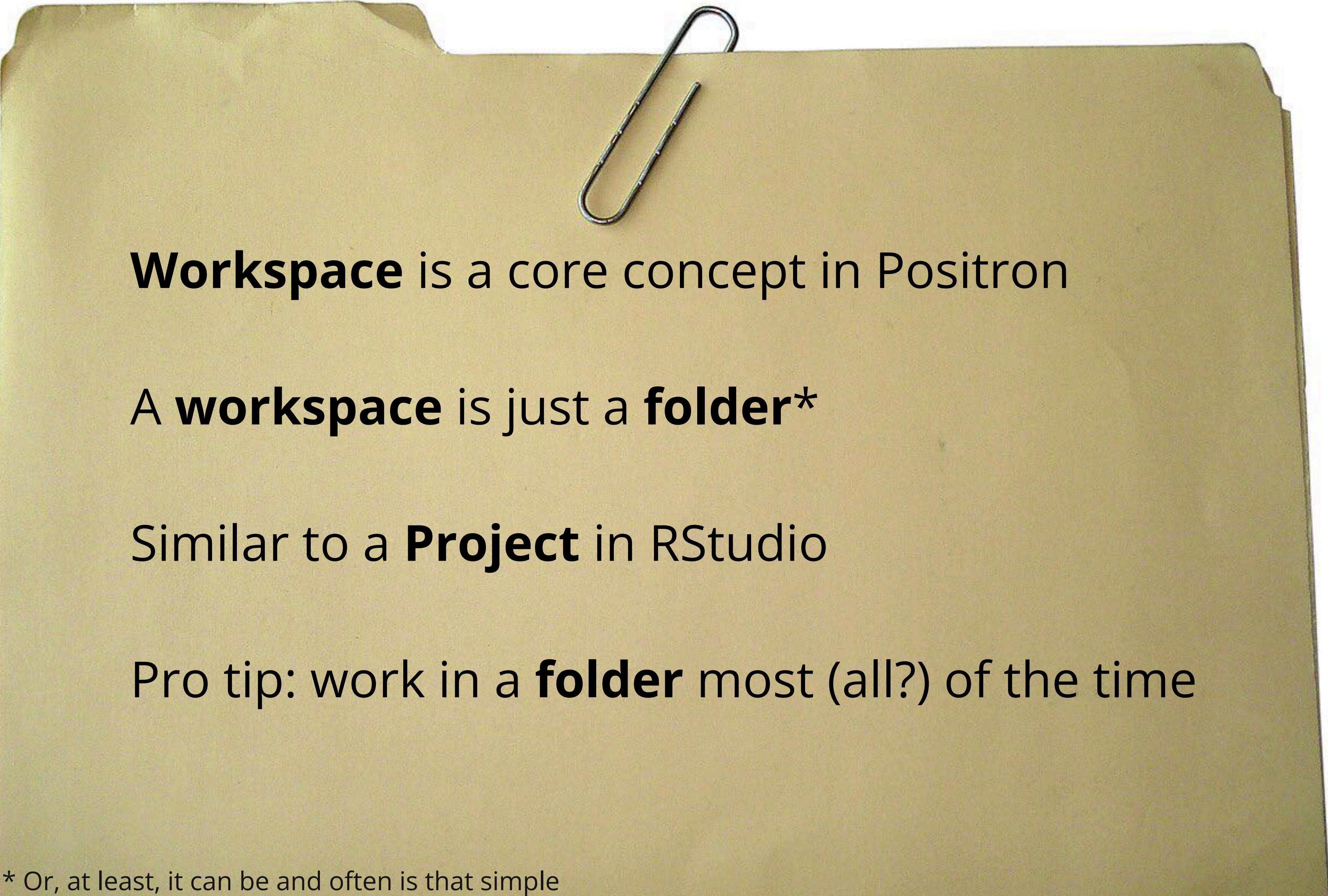
Why not build a polyglot IDE based on RStudio?



Why not build a VS Code extension?



For more on this: Jonathan McPherson's posit::conf talk [How Positron Works](#)



Workspace is a core concept in Positron

A **workspace** is just a **folder***

Similar to a **Project** in RStudio

Pro tip: work in a **folder** most (all?) of the time

* Or, at least, it can be and often is that simple

Positron

New Open

EXPLORER

NO FOLDER OPENED

You have not yet opened a folder.

Open Folder

Opening a folder will close all currently open editors. To keep them open, add a folder instead.

You can clone a repository locally.

Clone Repository

To learn more about how to use Git and source control in Positron, [read the VS Code docs](#).

Welcome

Positron

an IDE for data science from posit

Walkthroughs

Migrating from VSC... (Python)

Migrating from RSt... (R)

More...

New from Git...

CONSOLE TERMINAL PROBLEMS OUTPUT PORTS DEBUG CONSOLE

~ /

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

SESSION

VARIABLES

R 4.5.1 filter

No variables have been created.

PLOTS

R 4.5.1 Python 3.13.5 (...)

OUTLINE

TIMELINE

QUARTO

0 0 0 Quarto: 1.8.14

create.R — usethis

R 4.4.2 usethis

EXPLORER ...

OPEN EDITORS **create.R R**

USETHIS .github .Rproj.user .vscode docs inst man pkgdown R addin.R air.R author.R badge.R block.R browse.R ci.R citation.R code-of-conduct.R course.R coverage.R cpp11.R cran.R create.R data-table.R data.R description.R directory.R

SESSION ...

VARIABLES R 4.4.2 filter No variables have been created.

PLOTS

CONSOLE TERMINAL PROBLEMS TEST RESULTS OUTPUT PORTS ...

~rrr/usethis > |

```
R > #' Create a package or project
  2 #' 
  3 #' @description
  4 #' These functions create an R project:
  5 #' * `create_package()` creates an R package
  6 #' * `create_project()` creates a non-package project, i.e. a data analysis
  7 #'   project
  8 #' 
  9 #' Both functions can be called on an existing project; you will be asked before
10 #' any existing files are changed.
11 #' 
12 #' @inheritParams use_description
13 #' @param fields A named list of fields to add to `DESCRIPTION`, potentially
14 #'   overriding default values. See [use_description()] for how you can set
15 #'   personalized defaults using package options.
16 #' @param path A path. If it exists, it is used. If it does not exist, it is
17 #'   created, provided that the parent path exists.
18 #' @param roxygen Do you plan to use roxygen2 to document your package?
19 #' @param rstudio If `TRUE`, calls [use_rstudio()] to make the new package or
20 #'   project into an [RStudio
21 #'   Project](https://r-pkgs.org/workflow101.html#sec-workflow101-rstudio-projects).
22 #'   If `FALSE` and a non-package project, a sentinel `^.here` file is placed so
23 #'   that the directory can be recognized as a project by the
24 #'   [here](https://here.r-lib.org) or
```

Ln 1, Col 1 Spaces: 2 UTF-8 LF R

main 0 1 0 0 usethis Quarto: 1.7.31

R 4.3.3

R 4.4.3

R 4.5.0



Select Interpreter Session

R 4.4.2 Currently Selected
/Library/Frameworks/R.framework/Versions/4.4-arm64/Resources...

New Interpreter Session...

```
1 #' Create a package or project
2 #
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7 #'   project
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9 #' Both functions can be called on an existing project; you will be asked before
10 # any existing files are changed.
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13 #' @param fields A named list of fields to add to `DESCRIPTION`, potentially
```

CONSOLE TERMINAL PROBLEMS OUTPUT PORTS DEBUG CONSOLE

~ /rrr/usethis

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Type 'q()' to quit R.

```
> devtools::load_all()
: Loading usethis
>
```

SESSION HELP ... X

R 4.4.2 usethis

Ln 1, Col 1 Spaces: 2 UTF-8 LF R ⌂ Q

Start New Interpreter Session

R > 1 Python 3.11.11 (Pyenv)
2 Python 3.10.16 (Pyenv)
3 Python 3.13.3 (Global)
4 Python 3.9.6 (Global)

R > 5 Python 3.11.11 (Pyenv)
6 Python 3.10.16 (Pyenv)
7 Python 3.13.3 (Global)
8 Python 3.9.6 (Global)

R > 9 R 4.4.2
10 /Library/Frameworks/R.framework/Versions/4.4-arm64/Resources/bin/R
11 R 4.5.0
12 /Library/Frameworks/R.framework/Versions/4.5-arm64/Resources/bin/R
13 R 4.3.3
14 /Library/Frameworks/R.framework/Versions/4.3-arm64/Resources/bin/R

R > 15 #' overriding default values. See [use_description()] for how you can set
16 #' personalized defaults using package options.
17 #' @param path A path. If it exists, it is used. If it does not exist, it is
18 #' created, provided that the parent path exists.
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21 #' project into an [RStudio
22 #' Project](https://r-pkgs.org/workflow101.html#sec-workflow101-rstudio-projects).
23 #' If `FALSE` and a non-package project, a sentinel `.` file is placed so
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[here](https://here.r-lib.org) or

CONSOLE TERMINAL PROBLEMS TEST RESULTS OUTPUT PORTS ...

~/rrr/usethis

Ln 1, Col 1 Spaces: 2 UTF-8 LF R

SESSION ... X

VARIABLES R 4.4.2 filter No variables have been created.

PLOTS

create.R — usethis

R 4.4.2 usethis

EXPLORER OPEN EDITORS create.R ...

USETHIS .github .Rproj.user .vscode docs inst man pkgdown R addin.R air.R author.R badge.R block.R browse.R ci.R citation.R code-of-conduct.R course.R coverage.R cpp11.R cran.R create.R data-table.R data.R description.R directory.R

VARIABLES SESSION ... X

No variables have been created.

PLOTS

CONSOLE TERMINAL PROBLEMS TEST RESULTS OUTPUT PORTS ...

~ /rrr/usethis

R 4.4.2 R 4.5.0 R 4.5.0 R 4.3.3

main 0 0 1 1 0 0 usethis Quarto: 1.7.31 Ln 1, Col 1 Spaces: 2 UTF-8 LF R Timeline

create.R

```
R > #' Create a package or project
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 24 #'   [here](https://here.r-lib.org) or
```

Positron defaults to the "blank slate" lifestyle

R --no-save --no-restore-data

create.R — usethis

EXPLORER SESSION VARIABLES PLOTS

OPEN EDITORS R 4.4.2 usethis

create.R R

USETHIS

- > .github
- > .Rproj.user
- > .vscode
- > docs
- > inst
- > man
- > pkgdown
- R
 - addin.R
 - air.R
 - author.R
 - badge.R
 - block.R
 - browse.R
 - ci.R
 - citation.R
 - code-of-conduct.R
 - course.R
 - coverage.R
 - cpp11.R
 - cran.R
 - create.R
 - data-table.R
 - data.R
 - description.R
 - directory.R

CONSOLE TERMINAL PROBLEMS OUTPUT PORTS DEBUG CONSOLE

~ /rrr/usethis

```
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Loading usethis  
>
```

SESSION ... X

VARIABLES

R 4.4.2 filter

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PLOTS

Ln 1, Col 1 Spaces: 2 UTF-8 LF R Q

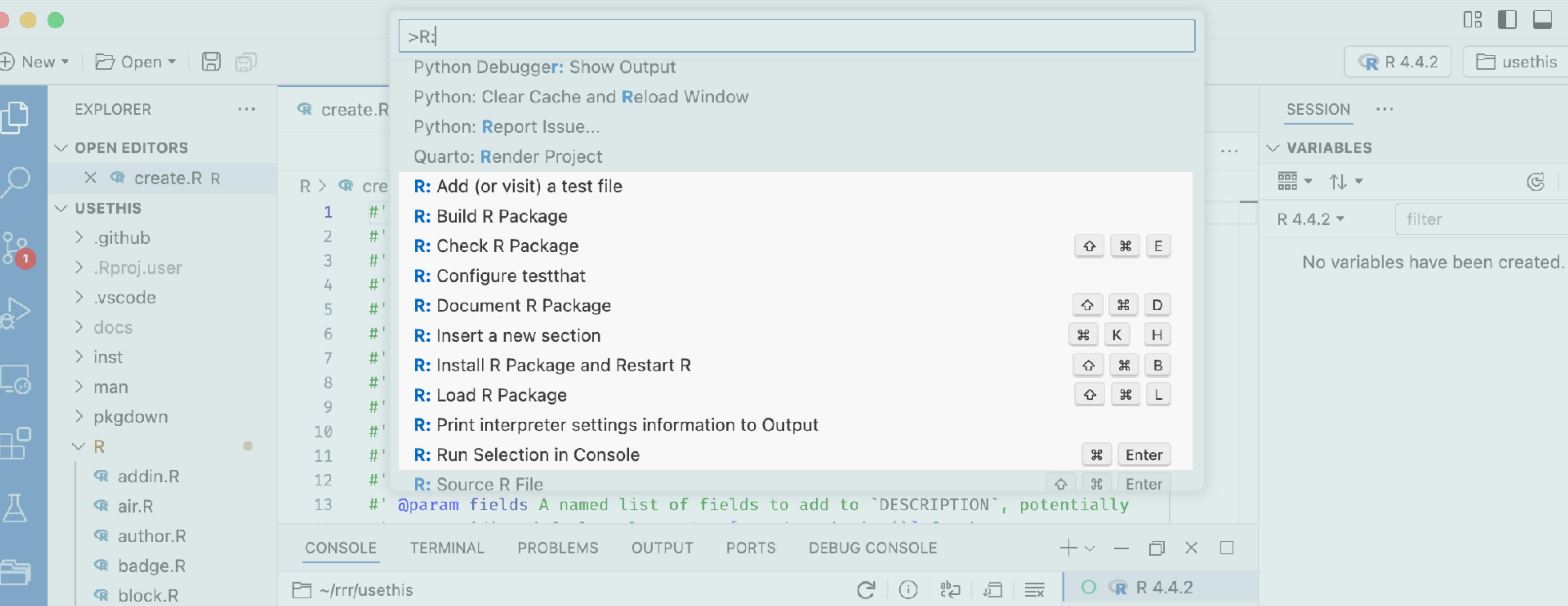
main* 0 0 △ 0 usethis Quarto: 1.7.31



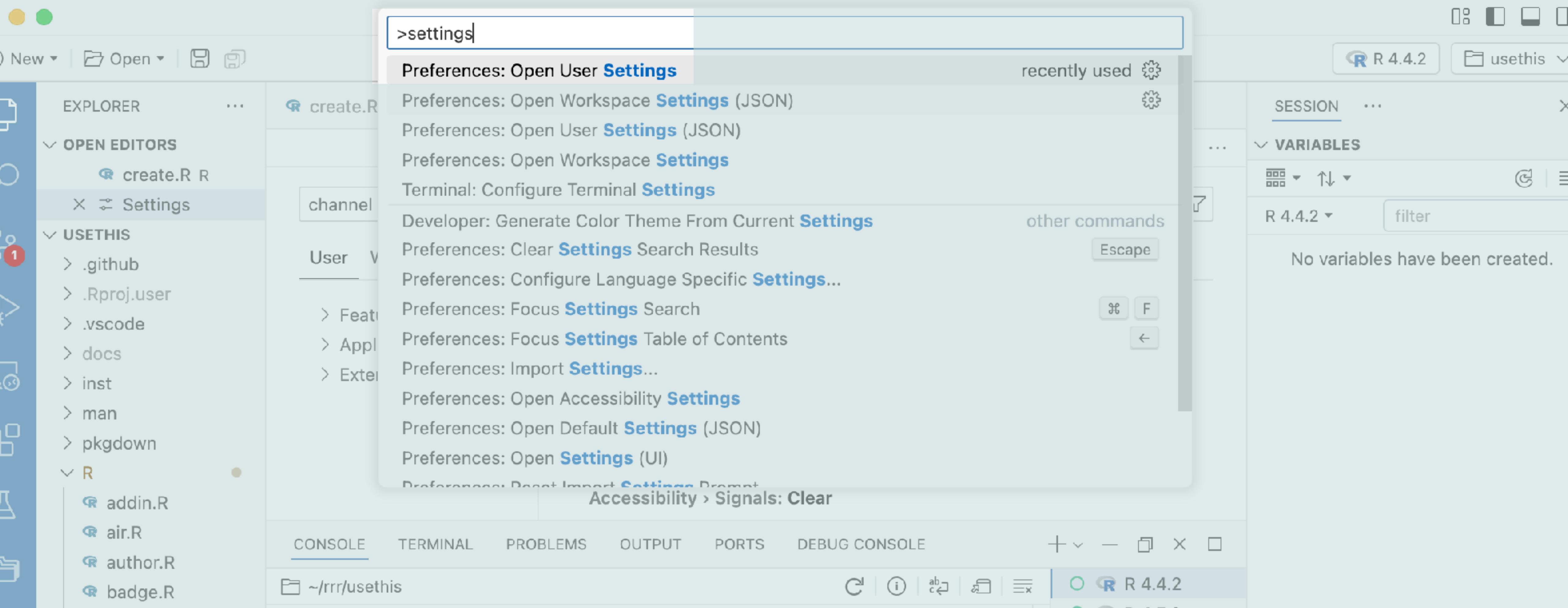
The
command palette
is a core concept in Positron

Ctrl/Cmd + Shift + P

Ctrl/Cmd + Shift + P



Ctrl/Cmd + Shift + P



Settings — usethis

New Open ⌂ ⌂ ⌂

Search

R 4.4.2 usethis

EXPLORER ...

OPEN EDITORS create.R Settings

VARIABLES SESSION ...

rstudio

2 Settings Found

User Workspace

Workbench (1)

Extensions (1)

R (1)

Advanced (1)

Workbench > Keybindings: Rstudio Keybindings

Enable RStudio keybindings (requires restart)

Positron > R: Default Repositories

The default repositories to use for R package installation, if no repository is otherwise specified in R startup scripts (restart Positron to apply).

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SESSION ...

VARIABLES

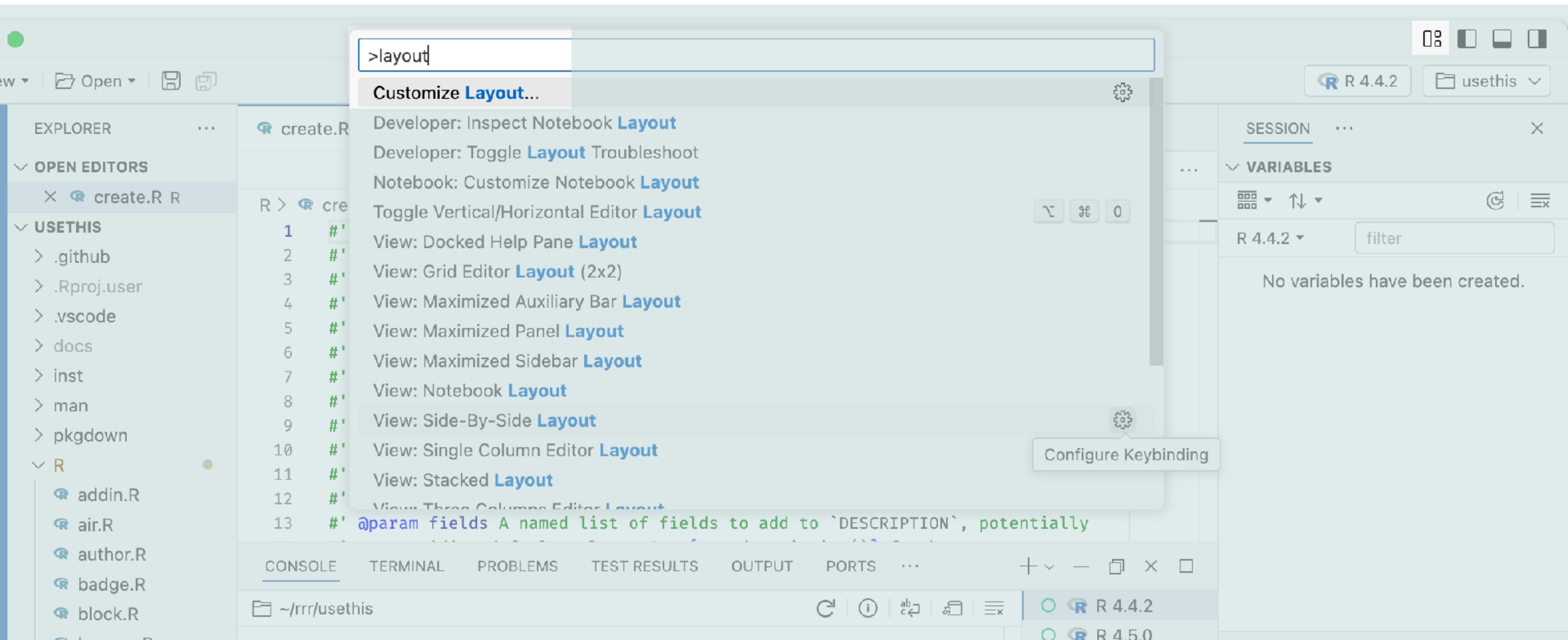
No variables have been created.

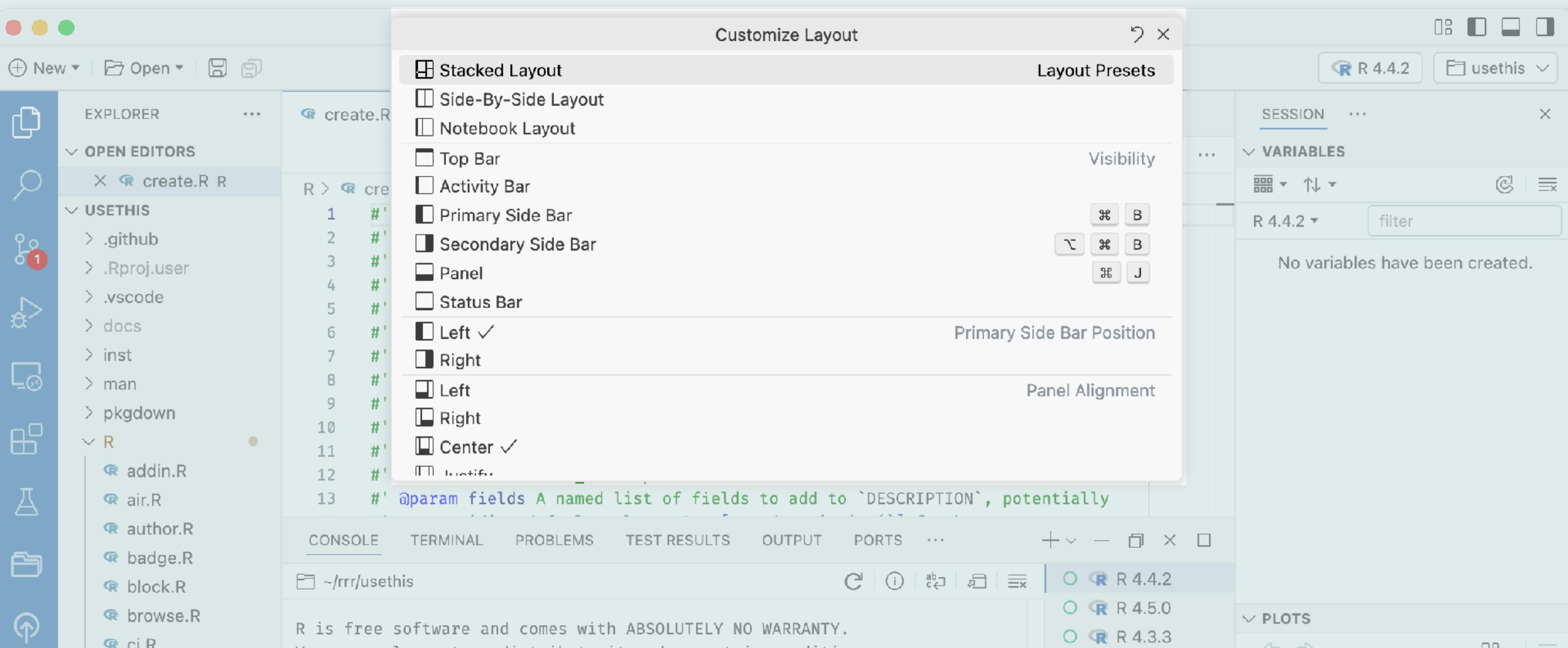
PLOTS

Direct link to setting:
[RStudio Keybindings](#)

R 4.4.2 filter

Ctrl/Cmd + Shift + P





Install extensions from Open VSX

The screenshot shows the Visual Studio Code interface. On the left, the Extensions sidebar is open, displaying a list of installed extensions. The 'INSTALLED' section has 15 items:

- Air - R Language ... by Posit Software, PBC
- Black Formatter by ms-python
- Github Pull Request by GitHub
- indent-rainbow by oderwat
- Jupyter by ms-toolsai (4)
- Jupyter Cell Tags by ms-toolsai
- Jupyter Keymap by ms-toolsai
- Jupyter Notebook Render... by ms-toolsai

The main workspace shows a code editor with an R script named 'create.R'. The script contains documentation for creating R projects:

```
R > create.R > ...
1 #' Create a package or project
2 #
3 #' @description
4 #' These functions create an R project:
5 #'   * `create_package()` creates an R package
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10 #' any existing files are changed.
11 #
12 #' @inheritParams use_description
13 #' @param fields A named list of fields to add to `DESCRIPTION`, poten...
```

The bottom right corner shows a list of R versions: R 4.4, R 4.5, and R 4.3.

Your turn

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 - Latest pre-release is 2026.02.1-5