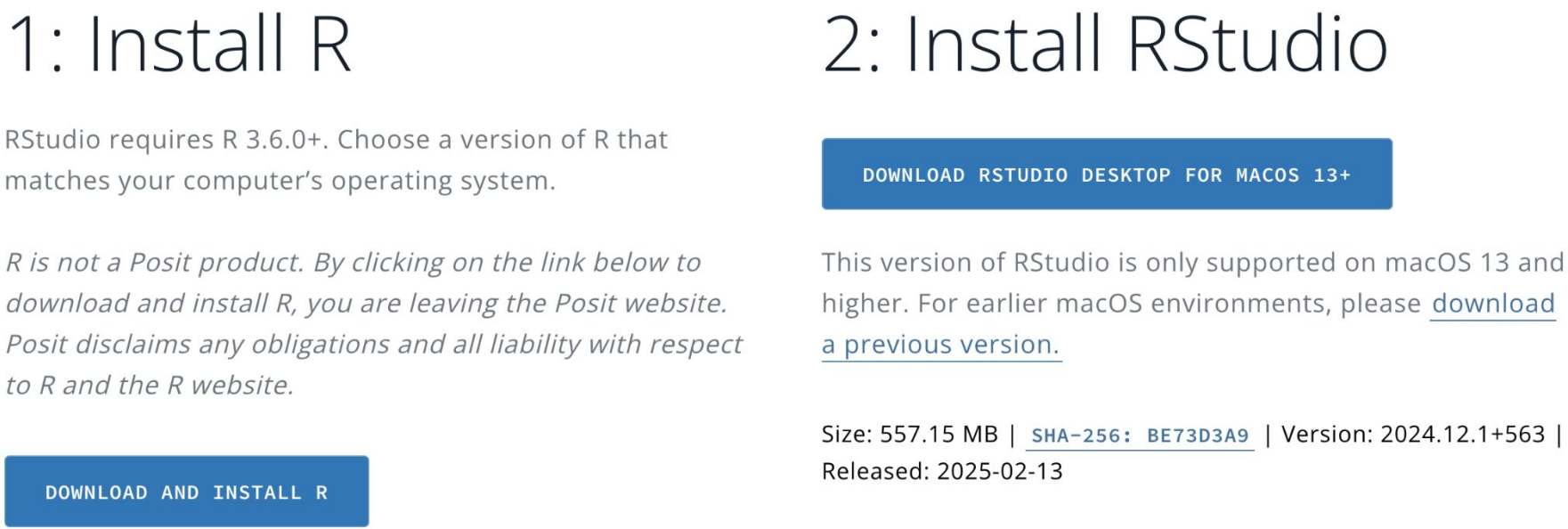
Установка R и RStudio

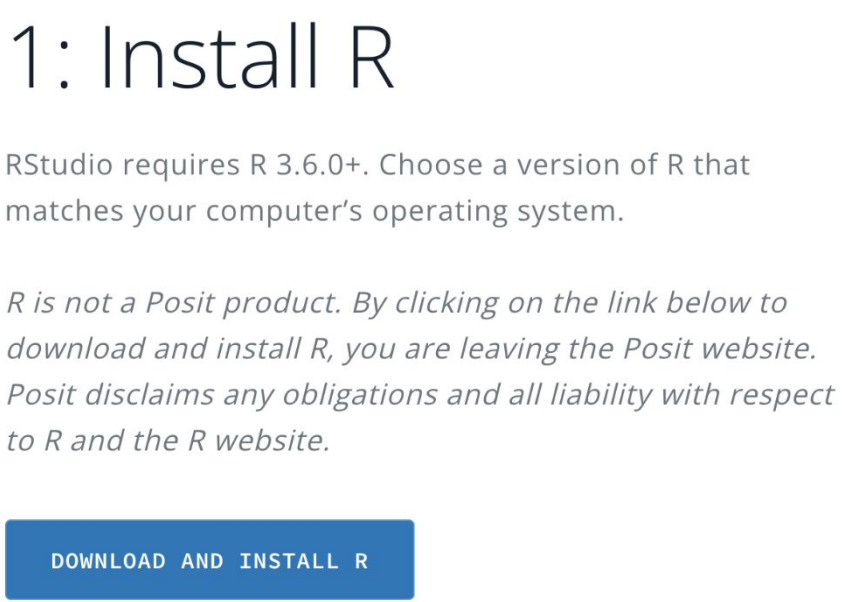
Перейдите по ссылке posit.co/download/rstudio-desktop

В середине страницы найдите следующий раздел



Установка R

Нажмите DOWNLOAD AND INSTALL R



Установка R

В открывшейся вкладке выберите из списка свою операционную систему

CRAN
Mirrors
What's new?
Search
CRAN Team

About R
R Homepage
The R Journal

The Comprehensive R Archive Network

Download and Install R

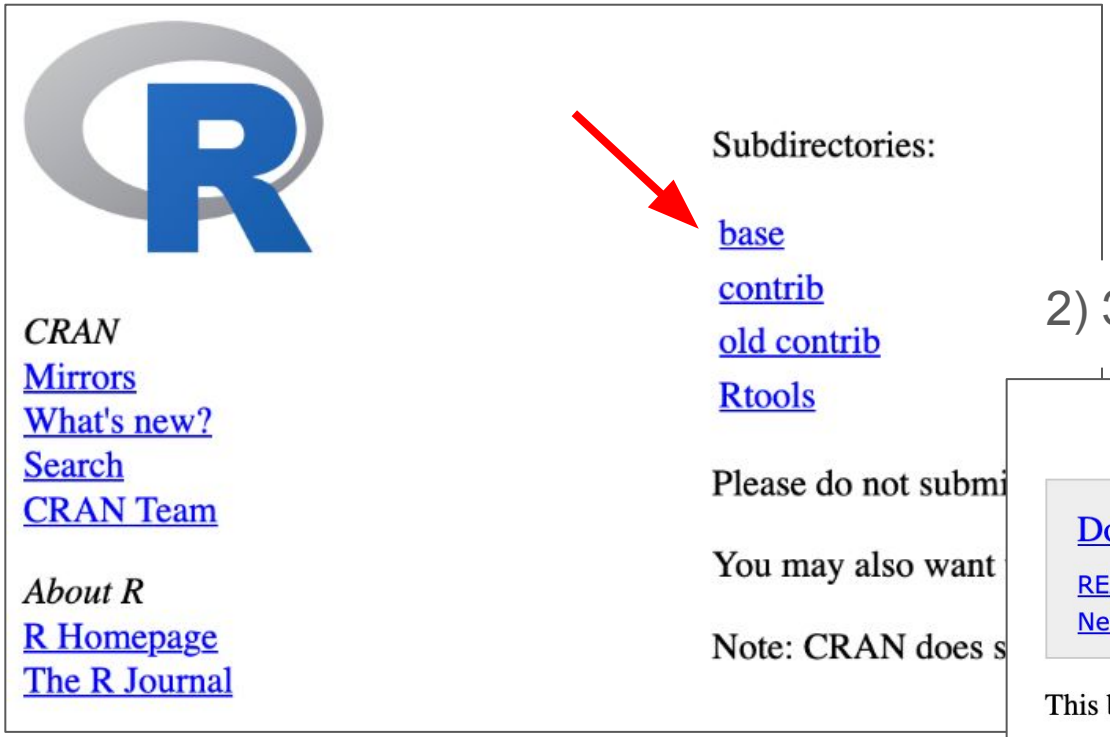
Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- Download R for Linux (Debian, Fedora/Redhat, Ubuntu)
- Download R for macOS
- Download R for Windows

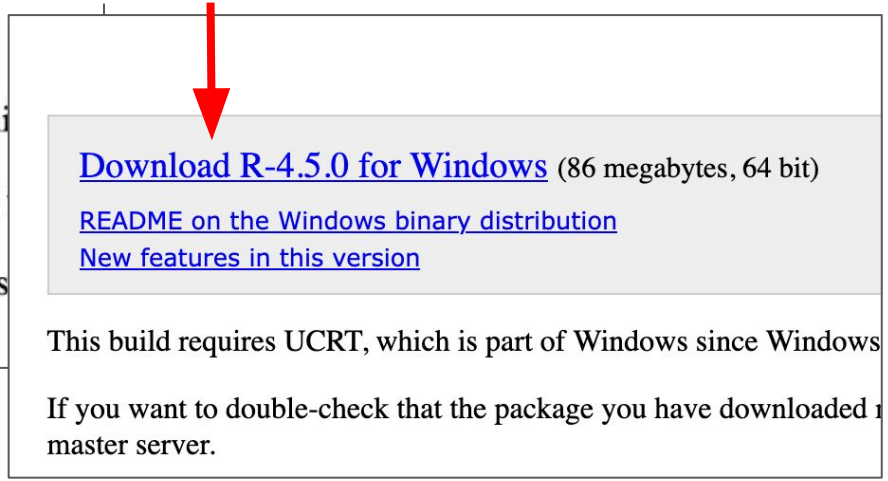
R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Для Windows

1) Выберите вариант base



2) Загрузите и установите .exe файл



Для Mac

Загрузите и установите .pkg файл (сверху для новых компьютеров, снизу для старых)

CRAN
Mirrors
What's new?
Search
CRAN Team

About R
R Homepage
The R Journal

Software
R Sources
R Binaries
Packages
Task Views
Other

Documentation
Manuals
FAQs
Contributed

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R for macOS

This directory contains binaries for the base distribution and of R and packages to run on macOS. R and package binaries for R versi
the CRAN archive so users of such versions should adjust the CRAN mirror setting (`https://cran-archive.r-project.org`) acco

Note: Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

R 4.5.0 "How About a Twenty-Six" released on 2025/04/11

Please check the integrity of the downloaded package by checking the signature:
`pkgutil --check-signature R-4.5.0-arm64.pkg`
in the *Terminal* application. If Apple tools are not avaiable you can check the SHA1 checksum of the downloaded image:
`openssl sha1 R-4.5.0-arm64.pkg`

Для новых Mac:

For Apple silicon (M1,2,..) Macs:
R-4.5.0-arm64.pkg

или для старых Mac:

For older Intel Macs:
R-4.5.0-x86_64.pkg
SHA1-hash: d1121c69451118c6e43d66b643c589008340f3e7
(ca. 100MB, notarized and signed)

Latest release:

R 4.5.0 binary for macOS 11 (**Big Sur**) and higher, signed and notarized packages.

Contains R 4.5.0 framework, R.app GUI 1.81, Tcl/Tk 8.6.12 X11 libraries and Texir
components are optional and can be ommitted when choosing "custom install", they
want to use the `tcltk` R package or build package documentation from sources.

macOS Ventura users: there is a known bug in Ventura preventing installations from
prompt. If the installation fails, move the downloaded file away from the *Download*
or Desktop).

Note: the use of X11 (including `tcltk`) requires XQuartz (version 2.8.5 or later). Al
when upgrading your macOS to a new major version.

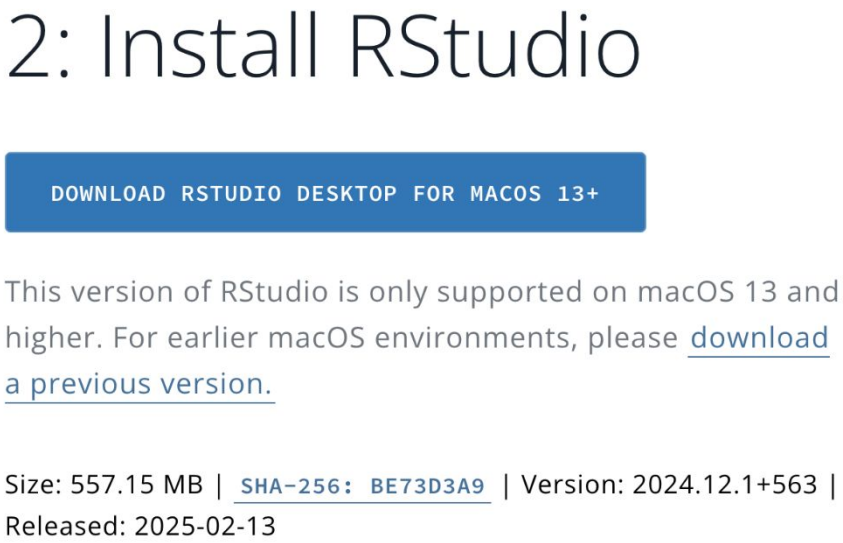
This release uses Xcode 14.2/14.3 and GNU Fortran 14.2. If you wish to compile R
Fortran code, you may need to download the corresponding GNU Fortran compiler
project.org/tools. Any external libraries and tools are expected to live in `/opt/R/arr`
`opt/R/x86_64` (Intel).

Установка RStudio

Вернитесь или перейдите по ссылке posit.co/download/rstudio-desktop

Нажмите DOWNLOAD RSTUDIO DESKTOP

Следуйте инструкциям установщика

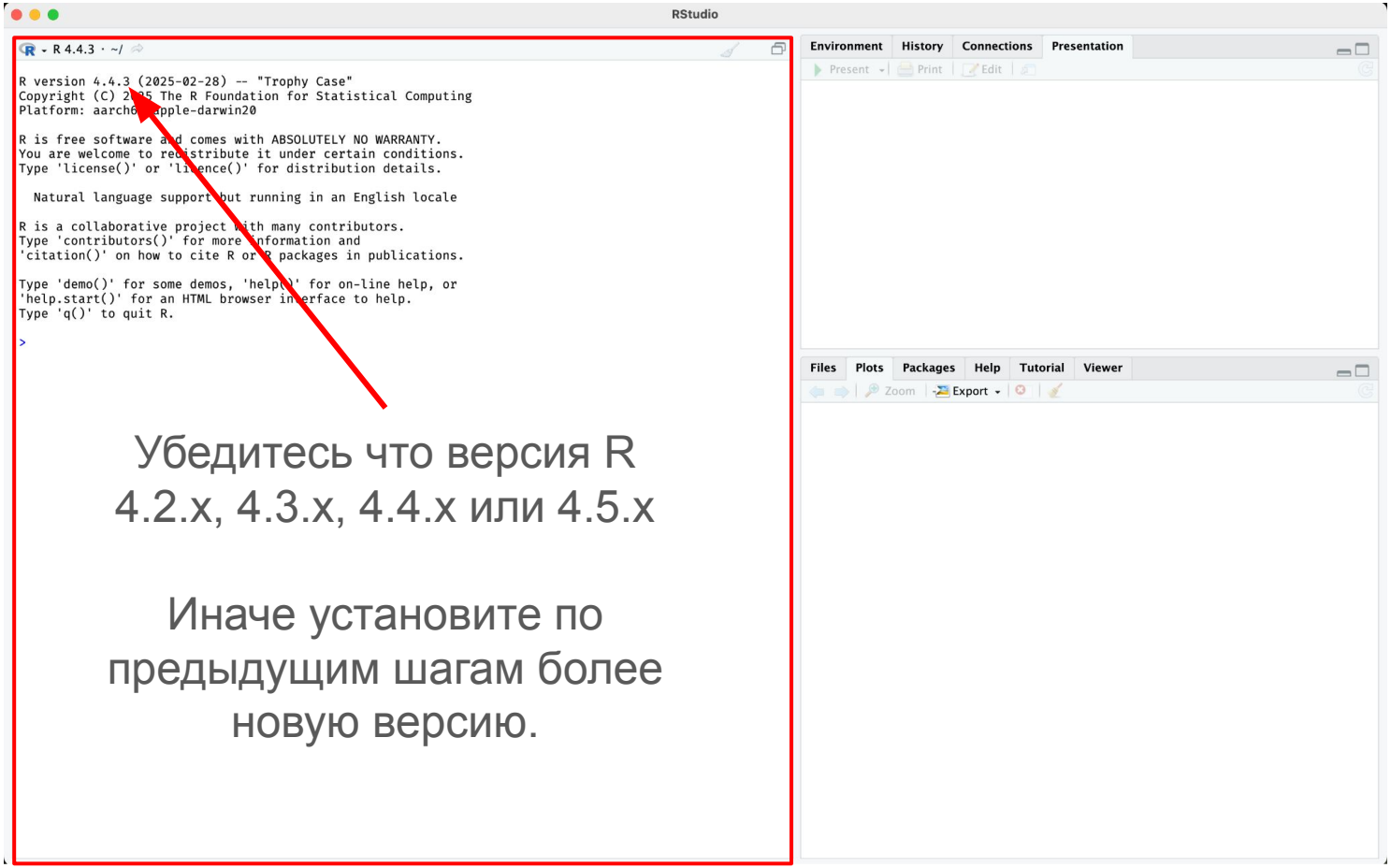


Запустите RStudio

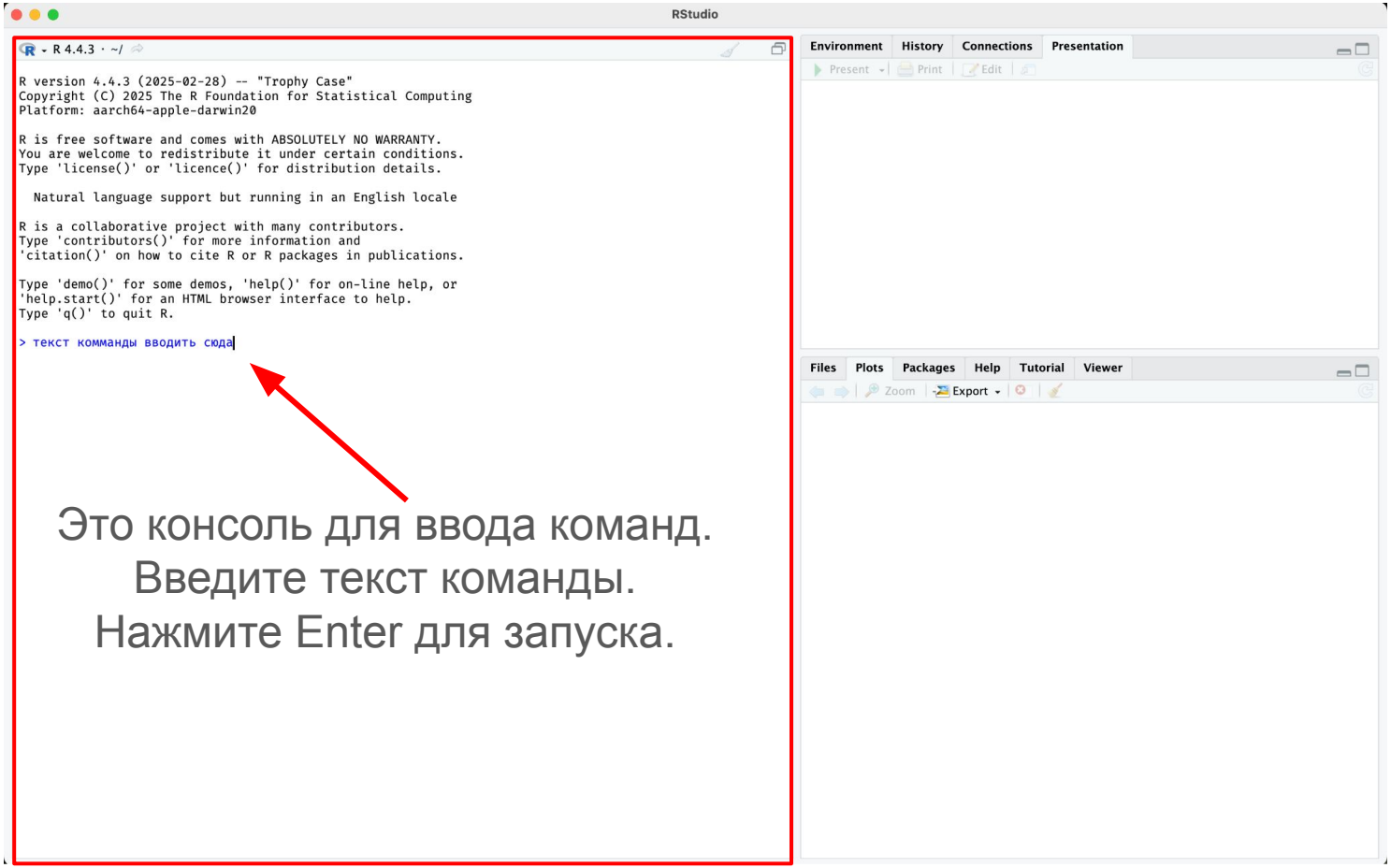
Иконка RStudio - удобный интерфейс.
Запускаем ее.

Иконка R - запускает только консоль для кода.

Запустите RStudio



Запуск команд в RStudio



Запуск команд в RStudio

RStudio

R 4.4.3 · ~/

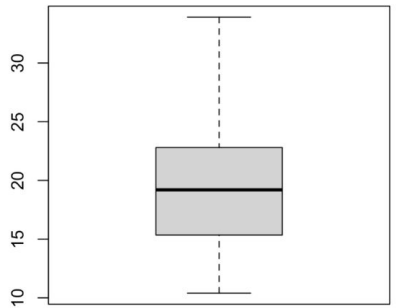
```
R version 4.4.3 (2025-02-28) -- "Trophy Case"
Copyright (C) 2025 The R Foundation for Statistical Computing
Platform: aarch64-apple-darwin20

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

  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.

> summary(mtcars)
      mpg             cyl             disp             hp             drat             wt
 Min.   :10.40   Min.   :4.000   Min.   : 71.1   Min.   : 52.0   Min.   :2.760   Min.   :1.513
 1st Qu.:15.43   1st Qu.:4.000   1st Qu.:120.8   1st Qu.: 96.5   1st Qu.:3.080   1st Qu.:2.581
 Median :19.20   Median :6.000   Median :196.3   Median :123.0   Median :3.695   Median :3.325
 Mean   :20.09   Mean   :6.188   Mean   :230.7   Mean   :146.7   Mean   :3.597   Mean   :3.217
 3rd Qu.:22.80   3rd Qu.:8.000   3rd Qu.:326.0   3rd Qu.:180.0   3rd Qu.:3.920   3rd Qu.:3.610
 Max.   :33.90   Max.   :8.000   Max.   :472.0   Max.   :335.0   Max.   :4.930   Max.   :5.424
      qsec             vs              am              gear            carb
 Min.   :14.50   Min.   :0.0000   Min.   :0.0000   Min.   :3.000   Min.   :1.000
 1st Qu.:16.89   1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:3.000   1st Qu.:2.000
 Median :17.71   Median :0.0000   Median :0.0000   Median :4.000   Median :2.000
 Mean   :17.85   Mean   :0.4375   Mean   :0.4062   Mean   :3.688   Mean   :2.812
 3rd Qu.:18.90   3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:4.000   3rd Qu.:4.000
 Max.   :22.90   Max.   :1.0000   Max.   :1.0000   Max.   :5.000   Max.   :8.000
> boxplot(mtcars$mpg)
>
```

Environment | History | Connections | Presentation

Present | Print | Edit

Files | Plots | Packages | Help | Tutorial | Viewer

Zoom | Export



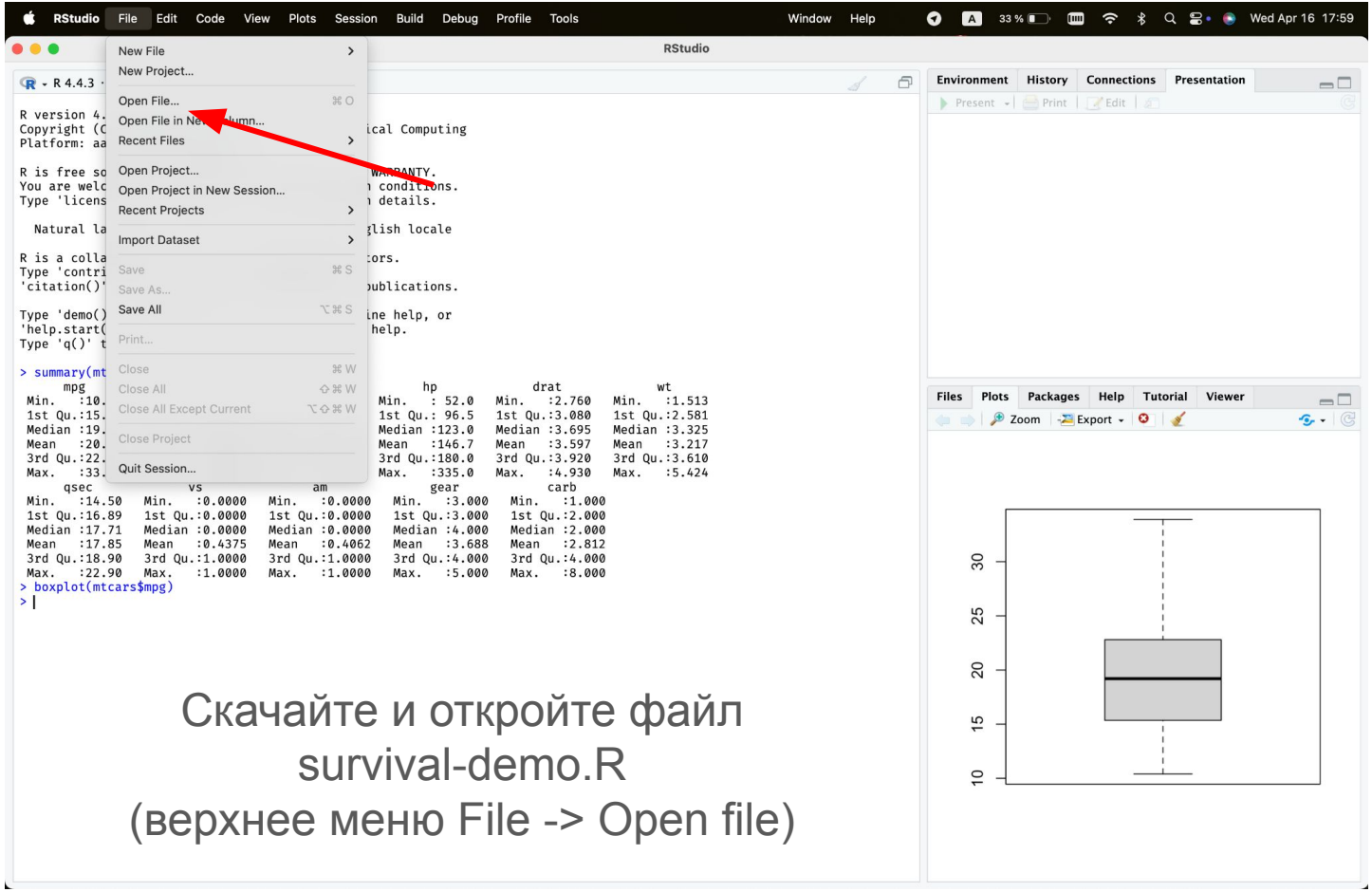
Попробуйте команды

`summary(mtcars)`

`boxplot(mtcars$mpg)`

Должен вывестись график

Запуск файлов в RStudio



Скачайте и откройте файл
survival-demo.R
(верхнее меню File -> Open file)

Запуск файлов в RStudio

RStudio

example.R

Source on Save | Run | Source

```
1  library(survival)
2
3  fit ← survfit(Surv(time, status) ~ 1, aml)
4  summary(fit)
5  plot(fit)
6
```

Выделите весь текст мышью
Нажмите Run
Команды выполнятся в консоли ниже

1:1 (Top Level) R Script

Environment | History | Connections | Presentation

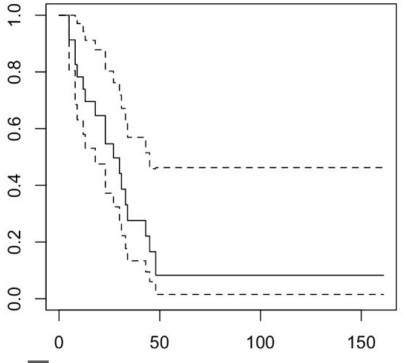
Present | Print | Edit

Files | Plots | Packages | Help | Tutorial | Viewer

Zoom | Export

R 4.4.3 · ~/

```
 Median :17.71   Median :0.0000   Median :0.0000   Median :4.000   Median :2.000
 Mean   :17.85   Mean   :0.4375   Mean   :0.4062   Mean   :3.688   Mean   :2.812
 3rd Qu.:18.90   3rd Qu.:1.0000   3rd Qu.:1.0000   3rd Qu.:4.000   3rd Qu.:4.000
 Max.   :22.90   Max.   :1.0000   Max.   :1.0000   Max.   :5.000   Max.   :8.000
> boxplot(mtcars$mpg)
> library(survival)
>
> fit ← survfit(Surv(time, status) ~ 1, aml)
> summary(fit)
Call: survfit(formula = Surv(time, status) ~ 1, data = aml)

 time n.risk n.event survival std.err lower 95% CI upper 95% CI
    5     23       2   0.9130  0.0588        0.8049        1.000
    8     21       2   0.8261  0.0790        0.6848        0.996
    9     19       1   0.7826  0.0860        0.6310        0.971
   12     18       1   0.7391  0.0916        0.5798        0.942
   13     17       1   0.6957  0.0959        0.5309        0.912
   18     14       1   0.6460  0.1011        0.4753        0.878
   23     13       2   0.5466  0.1073        0.3721        0.803
   27     11       1   0.4969  0.1084        0.3240        0.762
   30      9       1   0.4417  0.1095        0.2717        0.718
   31      8       1   0.3865  0.1089        0.2225        0.671
   33      7       1   0.3313  0.1064        0.1765        0.622
   34      6       1   0.2761  0.1020        0.1338        0.569
   43      5       1   0.2208  0.0954        0.0947        0.515
   45      4       1   0.1656  0.0860        0.0598        0.458
   48      2       1   0.0828  0.0727        0.0148        0.462
> plot(fit)
>
```



Должен вывестись график

Установка пакетов

Введите в консоли команду (обратите внимание на кавычки)

```
install.packages("tidyverse")
```

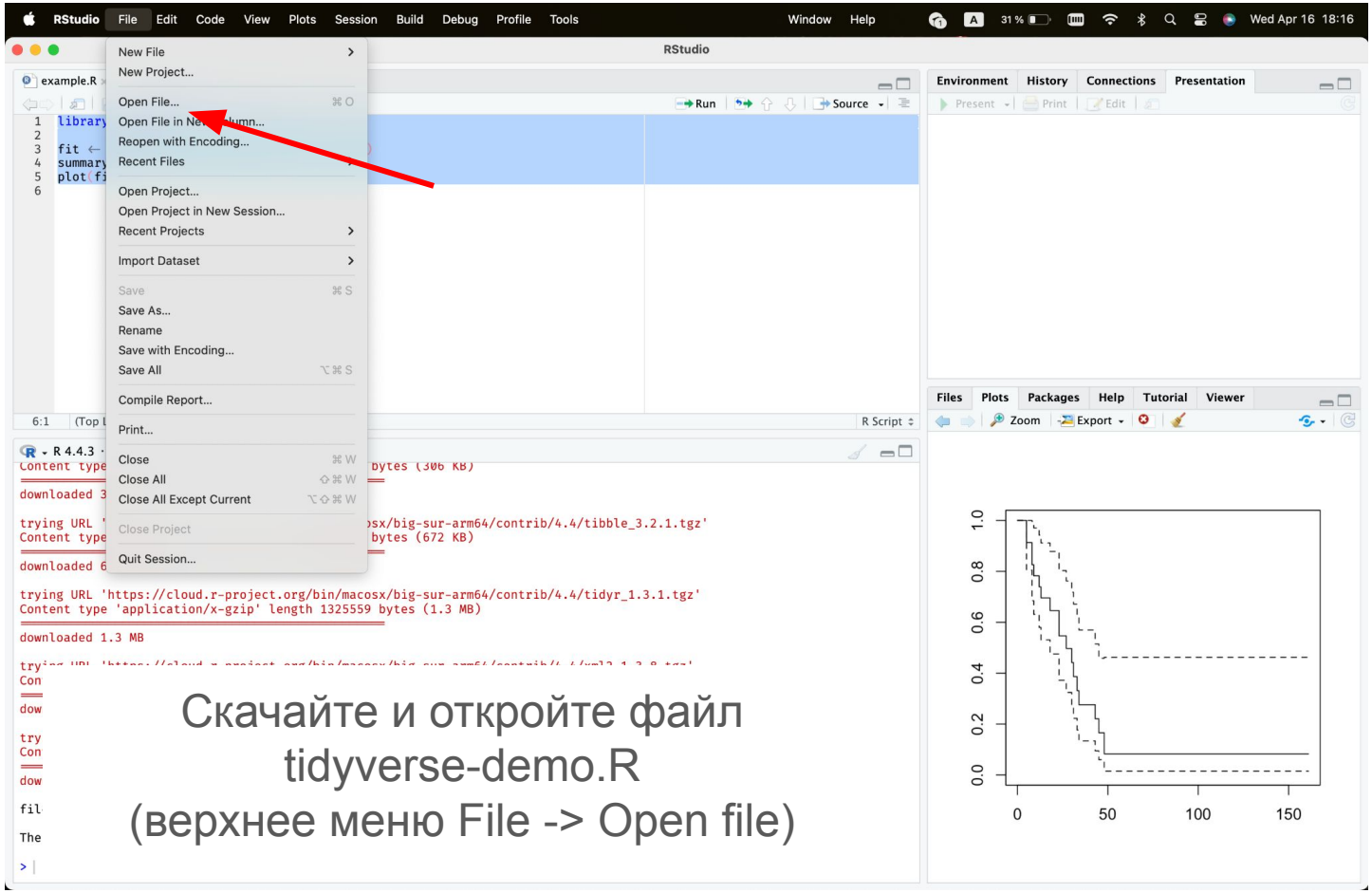
```
R 4.4.3 · ~/
   45      4       1   0.1656  0.0860       0.0598        0.458
   48      2       1   0.0828  0.0727       0.0148        0.462
> plot(fit)
> install.packages("tidyverse")
Installing package into '/Users/ydb/Temporary/demo'
(as 'lib' is unspecified)
also installing the dependencies 'fastmap', 'colorspace', 'sys', 'bit', 'ps', 'base64enc', 'sass', 'digest', 'cachem', 'fa
rver', 'labeling', 'munsell', 'RColorBrewer', 'viridisLite', 'rappdirs', 'rematch', 'askpass', 'bit64', 'prettyunits', 'pr
ocessx', 'evaluate', 'highr', 'xfun', 'yaml', 'bslib', 'fontawesome', 'htmltools', 'jquerylib', 'tinytex', 'backports', 'g
enerics', 'glue', 'lifecycle', 'memoise', 'blob', 'DBI', 'R6', 'tidyselect', 'vctrs', 'withr', 'data.table', 'gtable', 'is
oband', 'scales', 'gargle', 'uuid', 'cellranger', 'curl', 'ids', 'rematch2', 'cpp11', 'pkgconfig', 'mime', 'openssl', 'tim
echange', 'utf8', 'systemfonts', 'textshaping', 'clipr', 'crayon', 'vroom', 'tzdb', 'progress', 'callr', 'fs', 'knitr', 'r
markdown', 'selectr', 'stringi', 'fansi', 'broom', 'conflicted', 'cli', 'dbplyr', 'dplyr', 'dtplyr', 'forcats', 'ggplot2',
'googledrive', 'googlesheets4', 'haven', 'hms', 'httr', 'jsonlite', 'lubridate', 'magrittr', 'modelr', 'pillar', 'purrr',
'ragg', 'readr', 'readxl', 'reprex', 'rlang', 'rstudioapi', 'rvest', 'stringr', 'tibble', 'tidyr', 'xml2'

trying URL 'https://cloud.r-project.org/bin/macosx/big-sur-arm64/contrib/4.4/fastmap_1.2.0.tgz'
Content type 'application/x-gzip' length 192183 bytes (187 KB)
==================================================
downloaded 187 KB
```

долго будут ставиться пакеты

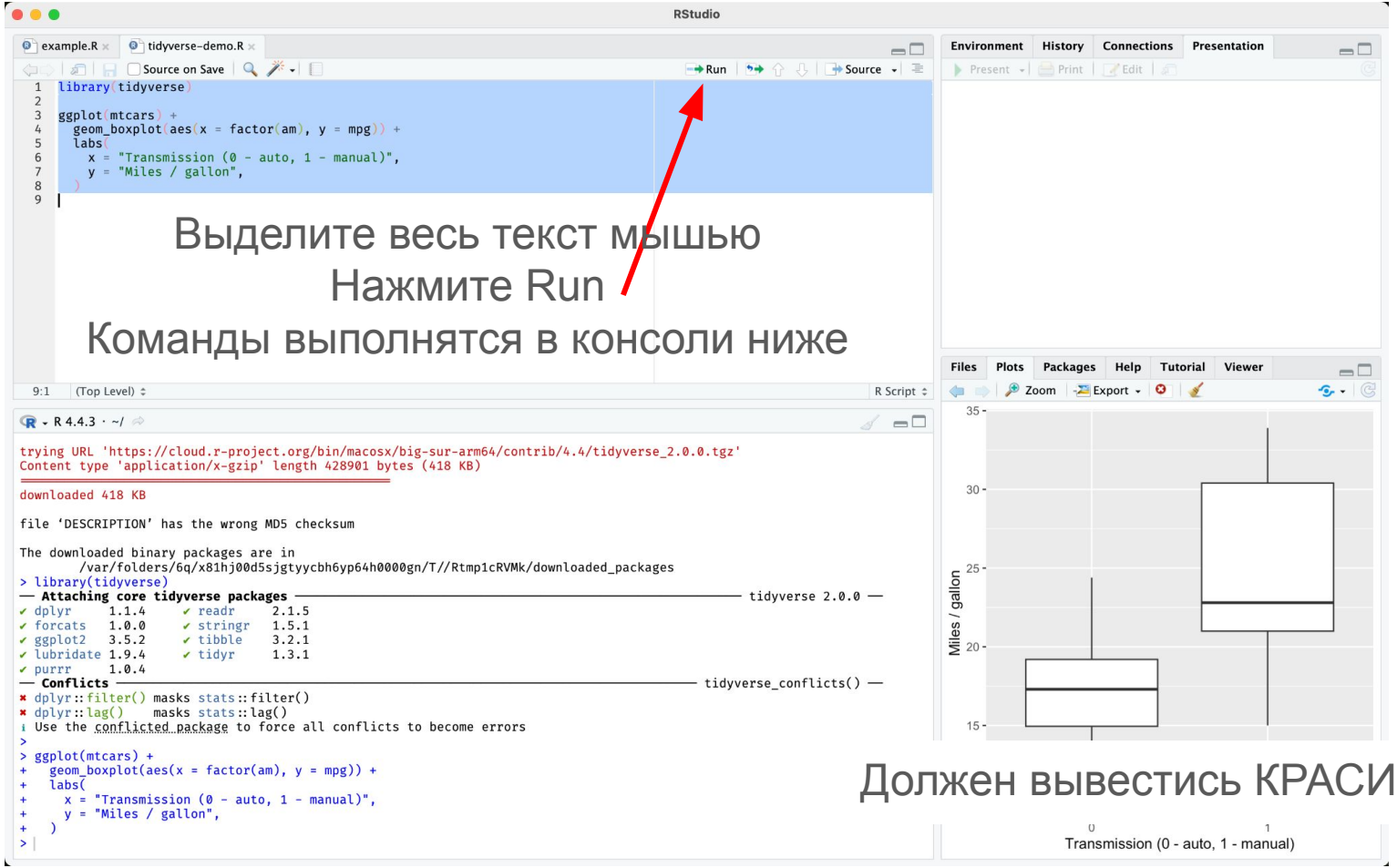
```
trying URL 'https://cloud.r-project.org/bin/macosx/big-sur-arm64/contrib/4.4/tidyverse_2.0.0.tgz'
Content type 'application/x-gzip' length 428901 bytes (418 KB)
==================================================
downloaded 418 KB

file 'DESCRIPTION' has the wrong MD5 checksum

The downloaded binary packages are in
        /var/folders/6q/x81hj00d5sjgtyycbh6yp64h0000gn/T//Rtmp1cRVMk/downloaded_packages
>
```

пока не закончится на tidyverse

Установка пакетов



Установка пакетов



Должен вывестись КРАСИВЫЙ график