

INSTALLING R AND RSTUDIO

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INSTALLING R & RSTUDIO

- ▶ R is a **FREE** statistical programming language and software environment used in a number of fields that require stats and math.
- ▶ Incredibly powerful.
- ▶ R Studio is an integrated development environment used to make R more intuitive and to facilitate R programming.
- ▶ In other words - R is the programming language, RStudio is the software environment that makes programming in it easier.

INSTALLING R

- ▶ First, we need to install R itself.
- ▶ If on Windows, go to
<https://cran.r-project.org/bin/windows/base/>
- ▶ If on Mac, go to <https://cran.r-project.org/bin/macosx/>

DOWNLOADING R ON WINDOWS

- ▶ Click to download, and follow through installation steps.

R-4.0.2 for Windows (32/64 bit)

[Download R 4.0.2 for Windows](#) (84 megabytes, 32/64 bit)

[Installation and other instructions](#)

[New features in this version](#)

If you want to double-check that the package you have downloaded matches the package distributed by CRAN, you can compare the [md5sum](#) of the .exe to the [fingerprint](#) on the master server. You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

Frequently asked questions

- [Does R run under my version of Windows?](#)
- [How do I update packages in my previous version of R?](#)
- [Should I run 32-bit or 64-bit R?](#)

Please see the [R FAQ](#) for general information about R and the [R Windows FAQ](#) for Windows-specific information.

Other builds

- Patches to this release are incorporated in the [r-patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [r-devel snapshot build](#).
- [Previous releases](#)

Note to webmasters: A stable link which will redirect to the current Windows binary release is
<CRAN MIRROR>/bin/windows/base/release.html.

DOWNLOADING R ON MAC

- ▶ Click to download, follow through installation steps.

R for Mac OS X

This directory contains binaries for a base distribution and packages to run on Mac OS X (release 10.6 and above). Mac OS 8.6 to 9.2 (and Mac OS X 10.1) are no longer supported but you can find the last supported release of R for these systems (which is R 1.7.1) [here](#). Releases for old Mac OS X systems (through Mac OS X 10.5) and PowerPC Macs can be found in the [old](#) directory.

Note: CRAN does not have Mac OS X systems and cannot check these binaries for viruses. Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

Package binaries for R versions older than 3.2.0 are only available from the [CRAN archive](#) so users of such versions should adjust the CRAN mirror setting (<https://cran-archive.r-project.org>) accordingly.

R 4.0.2 "Taking Off Again" released on 2020/06/22

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type

```
md5 R-4.0.2.pkg
```

in the *Terminal* application to print the MD5 checksum for the R-4.0.2.pkg image. On Mac OS X 10.7 and later you can also validate the signature using

```
pkgutil --check-signature R-4.0.2.pkg
```

Latest release:

[R-4.0.2.pkg](#) (notarized and signed)

SHA1:
hash: 7e4c1f0d407cccd475eeaeadd96a126ee9c83db3b
(ca. 84MB)

R 4.0.2 binary for macOS 10.13 (High Sierra) and higher, signed and notarized package. Contains R 4.0.0 framework, R.app GUI 1.72 in 64-bit for Intel Macs, Tk/Tk 8.6.6 X11 libraries and Texinfo 6.7. The latter two components are optional and can be omitted when choosing "custom install", they are only needed if you want to use the `tcltk` R package or build package documentation from sources.

Note: the use of X11 (including `tcltk`) requires [XQuartz](#) to be installed since it is no longer part of OS X. Always re-install XQuartz when upgrading your macOS to a new major version.

Important: this release uses Xcode 10.1 and GNU Fortran 8.2. If you wish to compile R packages from sources, you will need to download and GNU Fortran 8.2 - see the [tools](#) directory.

INSTALLING RSTUDIO

- ▶ Next, you will need to download and install RStudio, a software environment for programming in R.
- ▶ First, go to <https://rstudio.com/>
- ▶ Then click the tabs as demonstrated on these next slides.

INSTALLING RSTUDIO

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R Studio

Debunking the R vs. Python Myth

A live panel discussion about delivering the most value using R and Python.

WEDNESDAY, AUGUST 26, 11AM ET

REGISTER NOW

INSTALLING RSTUDIO

The screenshot shows the RStudio website. At the top left is a black navigation bar with the text "BLACK LIVES MATTER" and a "JOIN US" button. On the right side of the header is a search bar with a magnifying glass icon and an "X" button. Below the header is a large banner featuring a blue and yellow snake-like background. The banner contains the text "Debunking the R vs. Python Myth" in large white letters, followed by a smaller line of text: "A live panel discussion about delivering the most value using R and Python". Below this is the date "WEDNESDAY, AUGUST 26, 11AM ET" and a "REGISTER NOW" button. To the right of the banner is a vertical blue sidebar with the following menu items: "Products" (with a dropdown arrow), "Open Source" (highlighted with a red border and a dropdown arrow), "Hosted Services" (with a dropdown arrow), "Professional" (with a dropdown arrow), "Solutions" (with a dropdown arrow), "Customers", "Resources" (with a dropdown arrow), "Pricing", "About" (with a dropdown arrow), "Support", "Community", and "Docs".

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Debunking the R vs. Python Myth

A live panel discussion about delivering the most value using R and Python

WEDNESDAY, AUGUST 26, 11AM ET

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INSTALLING RSTUDIO

The screenshot shows the RStudio website homepage. At the top, there is a black header bar with the text "BLACK LIVES MATTER" and a "JOIN US" button. Below the header is a large, stylized graphic of a blue and yellow snake coiled in a circular pattern against a dark background. Overlaid on the snake graphic is the text "Debunking the R vs. Python Myth". Below this, a portion of the text "e panel discussion about delivering the most value using R and Pyth" is visible. In the center of the page, there is a call-to-action button with the text "REGISTER NOW". At the bottom of the main content area, there is a URL: "https://rstudio.com/products/rstudio/". To the right of the main content area is a vertical sidebar with a blue background. The sidebar contains several menu items: "Products" (with a dropdown arrow), "Open Source" (with a dropdown arrow), "RStudio" (highlighted with a red border and icon), "RStudio Server" (with icon), "Shiny Server" (with icon), "R Packages" (with icon), "Hosted Services" (with a dropdown arrow), "Professional" (with a dropdown arrow), "Solutions" (with a dropdown arrow), "Customers", "Resources" (with a dropdown arrow), "Pricing", "About" (with a dropdown arrow), "Support", "Community", and "Docs".

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Debunking the R vs. Python Myth

REGISTER NOW

<https://rstudio.com/products/rstudio/>

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Support

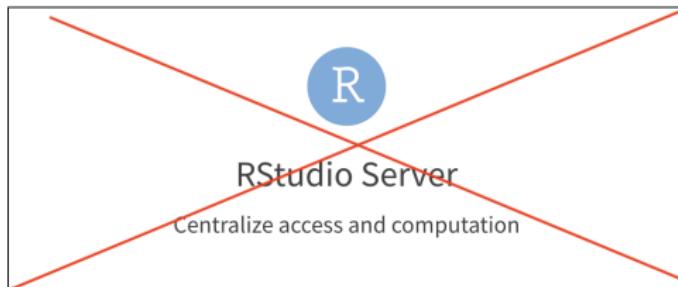
Community

Docs

INSTALLING RSTUDIO

DON'T INSTALL RSTUDIO SERVER!

There are two versions of RStudio:



INSTALLING RSTUDIO

includes a console, syntax-highlighting editor that supports direct code execution, and a variety of robust tools for plotting, viewing history, debugging and managing your workspace.

[LEARN MORE ABOUT RSTUDIO FEATURES](#)

for every professional data science team. RStudio Team includes RStudio Server Pro, RStudio Connect and RStudio Package Manager.

[LEARN MORE](#)

RStudio Desktop

Open Source License

Free

RStudio Desktop

Commercial License

\$995

/year

[DOWNLOAD](#)

RStudio Server

Open Source License

Free

RStudio Server Pro

Commercial License

\$4,975

/year
(5 Named Users)

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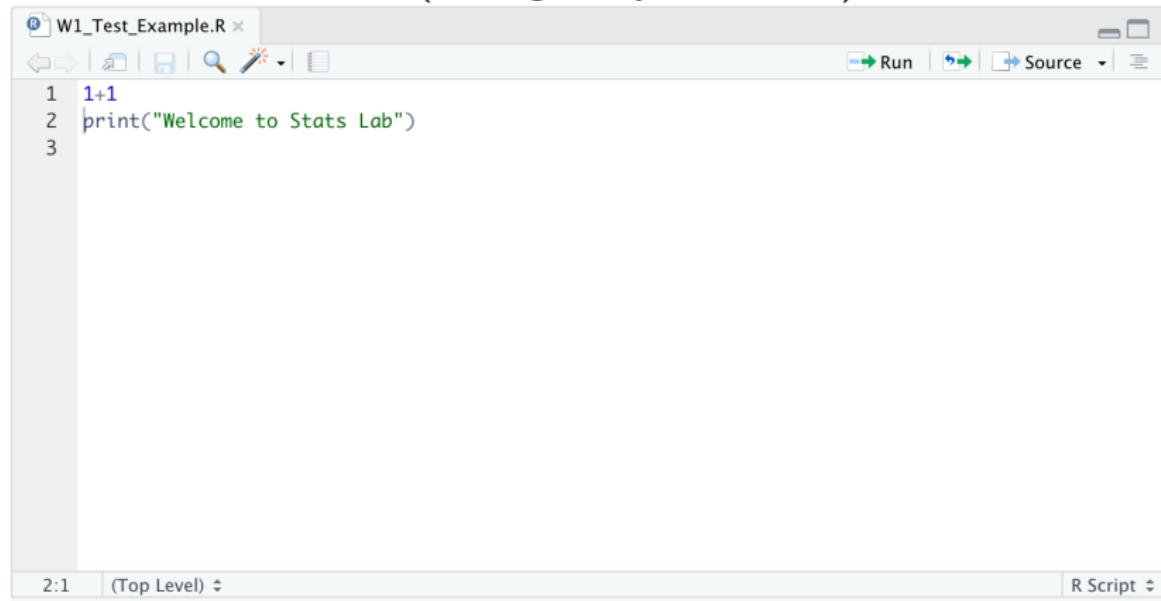
INSTALLING RSTUDIO

- ▶ Next, open up the downloaded application, and walk through your computer's install process with RStudio

INSTALLING RSTUDIO

If all has gone correctly, you should be able to open up a window similar to this one:

- Try testing out simple computations - R can be used as a calculator (among many other uses).



The screenshot shows the RStudio interface with the following details:

- Title Bar:** W1_Test_Example.R
- Toolbar:** Includes icons for back, forward, file, search, and edit.
- Control Bar:** Includes Run, Source, and other options.
- Code Editor:** Displays the following R code:

```
1 1+1
2 print("Welcome to Stats Lab")
3
```
- Status Bar:** Shows 2:1, (Top Level) ▾, and R Script ▾.