Investigative Reporters & Editors

Installing R and RStudio

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Link to this doc: **https://bit.ly/ire-install-r**

Installing R and RStudio on your computer is relatively straightforward. However you likely will need administrator privileges. Once these programs are installed, they function the same way no matter what platform you're on. When you install R you are installing the base language on your computer, and when you install RStudio you are installing a **graphical user interface** (GUI) that allows you to write R, save your script files, and see output more easily.

Questions? Comments? Problems? Please email me at liz@ire.org.

Does my Mac have an Intel or an M chip?

Click the Apple icon in the upper right-hand corner of your screen and choose "About this Mac"
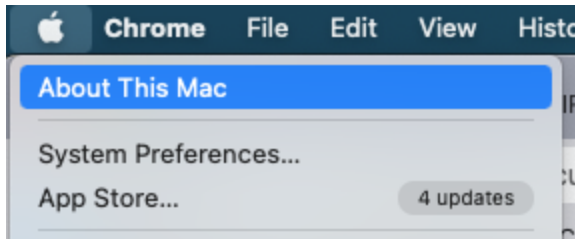
Look to see what kind of Chip you have:

A note about memory: to successfully run R, you should ideally have 8 GB of memory. If you are running on 4 GB, you may find that R cannot perform well with data that is too big for a spreadsheet.

Installing R on a Mac with an Intel chip

Choose a mirror (or server) from which to download the R package: https://cran.r-project.org/mirrors.html

      For example: WashU in St Louis http://cran.wustl.edu/

      It doesn't matter what you choose, they all look the same.

Click "Download R for MacOS"

Under "Latest Release" choose the appropriate version (likely the first option):

R-4.2.0.pkg (notarized and signed)
SHA1-hash: 2a90fb8629e44f72f9d89d6a9bac9b71564587d7
(ca. 90MB) for Intel Macs

Once the .pkg file has downloaded, double-click the icon and follow the installation steps. Then install RStudio.

Installing R on a Mac with an M chip

Choose a mirror (or server) from which to download the R package:
https://cran.r-project.org/mirrors.html

For example: WashU in St Louis http://cran.wustl.edu/
It doesn't matter what you choose, they all look the same.

Click "Download R for MacOS"

Download and Install R

Precompiled binary distributions of the base system and contributed packages,

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

Under "Latest Release" choose the appropriate version: for an M chip you need the version with **arm64.pkg**:

R-4.2.0-arm64.pkg (notarized and signed)
SHA1-hash: ada2602d245164d316967d24f5482b58e2dfddff
(ca. 89MB) for M1 Macs only!

Once the .pkg file has downloaded, double-click the icon and follow the installation steps. Then install RStudio.

Installing RStudio on a Mac

Go to https://posit.co/download/rstudio-desktop/

You've already installed R. So go ahead and go to Step 2 and click the big Download button.
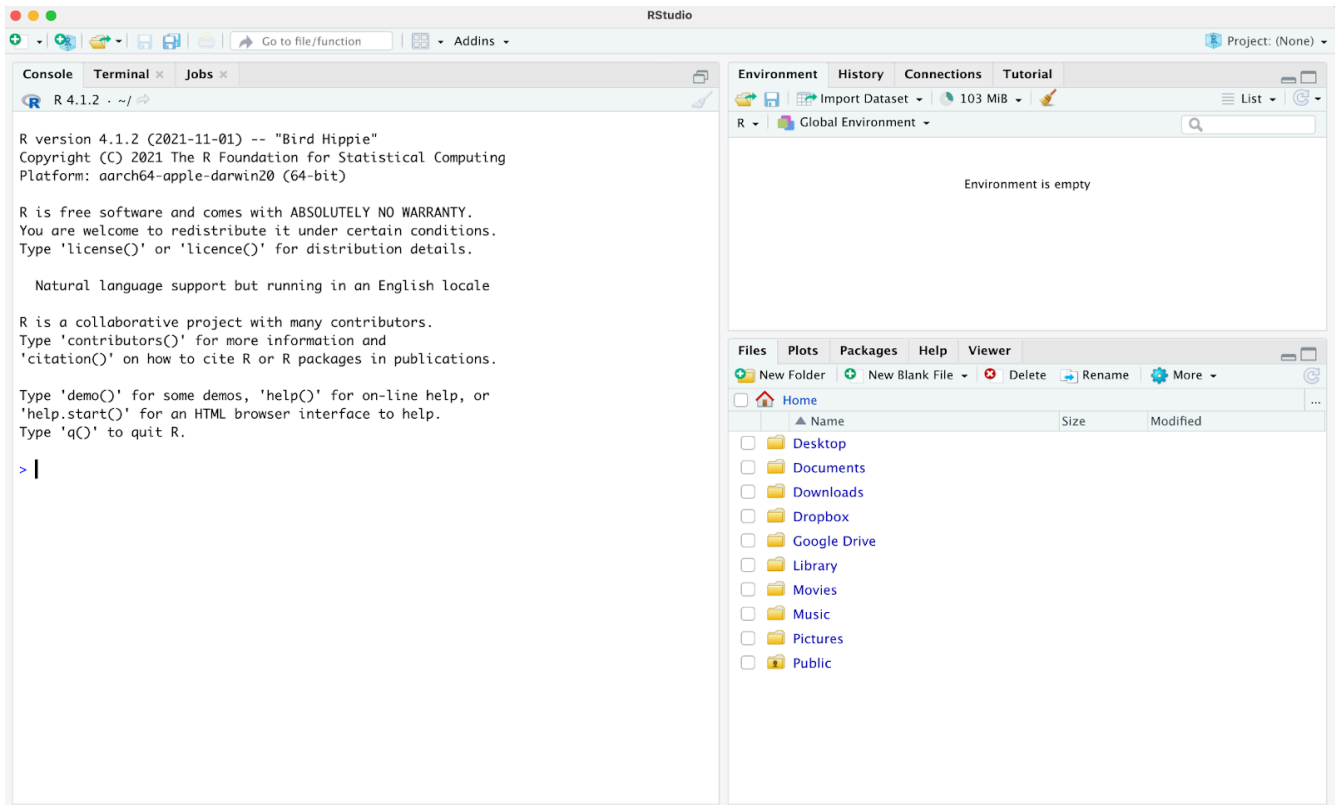

DOWNLOAD RSTUDIO DESKTOP FOR MAC

Open the .dmg file once it's downloaded, and drag the R icon into the Applications folder.

Now, open RStudio. The quickest way to open programs on a Mac is to type Cmd + space and search for the program.

You'll probably get a warning like this, but go ahead and click "Open".
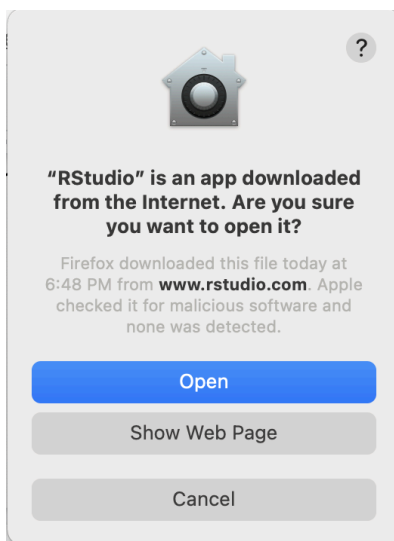
Then you should see this:

* the version of R should match what you just installed

If R asks you to download and install XCode Developer Tools, don't worry about it. You shouldn't need to do this.

Installing R on a PC

Choose a mirror (or server) from which to download the R package:
https://cran.r-project.org/mirrors.html

    For example: WashU in St Louis http://cran.wustl.edu/

    It doesn't matter what you choose, they all look the same.

Click **Download R for Windows**:

Download and Install R

Precompiled binary distributions of the base system and contributed packages,

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

Click **Install R for the first time**:

R for Windows

Subdirectories:

base	Binaries for base distribution. This is what you want to **install R for the first time**.
contrib	Binaries of contributed CRAN packages (for R >= 3.4.x).
old contrib	Binaries of contributed CRAN packages for outdated versions of R (for R < 3.4.x).
Rtools	Tools to build R and R packages. This is what you want to build your own packages on Windows, or to build R itself.

Please do not submit binaries to CRAN. Package developers might want to contact Uwe Ligges directly in case of questions / suggestions related to Windows binaries.

You may also want to read the R FAQ and R for Windows FAQ.

Note: CRAN does some checks on these binaries for viruses, but cannot give guarantees. Use the normal precautions with downloaded executables.

Click **Download R-X.X.X for Windows**:

R-4.2.0 for Windows

Download R-4.2.0 for Windows (79 megabytes, 64 bit)
README on the Windows binary distribution
New features in this version

This build requires UCRT, which is part of Windows since Windows 10 and Windows Server 2016. On older systems, UCRT has to be installed manually from here.

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.

Frequently asked questions

Click (or double-click) the .exe file.
A scary dialogue box will ask if you want to allow this app from an unknown publisher to make changes to your device… click **Yes**!

Follow the steps in the dialogue box, accepting the defaults (including location: C:\Program Files\R\R-X.X.X).

Decide whether you want a shortcut on your Desktop (the default is checked-yes).

Installing RStudio on a PC

Go to https://posit.co/download/rstudio-desktop/

You've already installed R. So go ahead and go to Step 2 and click the big Download button.

Double-click on the .exe that is downloaded.
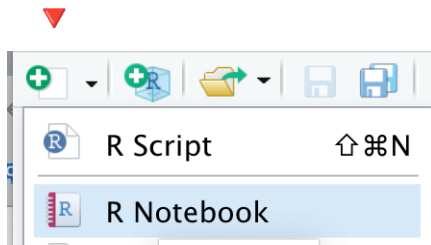Dialogue: Do you want to allow this app to make changes to your device? **Yes**!
Just click *Next* several times until it starts Installing (will likely install to C:/Program Files/RStudio)
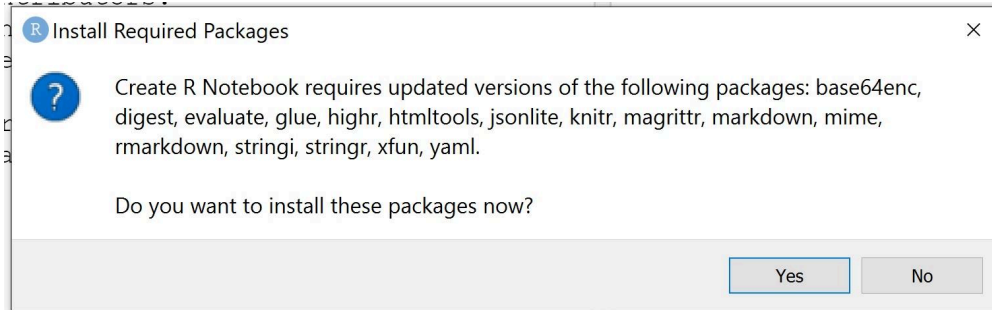
Click Finish.

Settings to change

Open RStudio. Then, click on the little green plus sign in the upper left-hand corner and create a new R Notebook file:


You may get a dialogue box that asks you to install necessary packages: **click Yes!**

If you didn't get that dialogue box and RStudio opened a new notebook file, just go to the next step…

Bring up the **Global Options** menu. This is under Tools.

1. In the **General** section, under "Workspace" make sure that "Restore .RData into workspace at startup" is unchecked, and "Save workspace to .RData on exit" says "Never
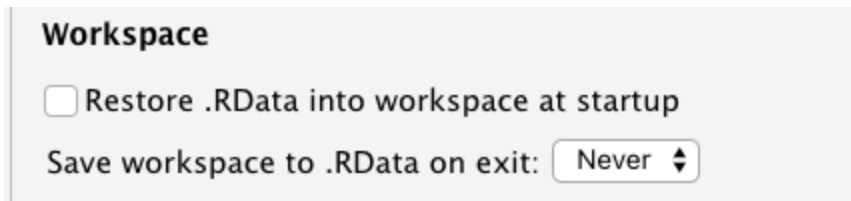
2. In the **R Markdown** section*, make sure that for "Evaluate chunks in directory:" you have selected "Project".
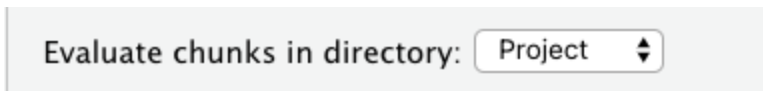
Then hit Apply.

The first setting here is a best practice. You want your environment to be clear every time you open RStudio; rerun any code you need to rerun to pick up where you left off. This way you'll know if there's a break in your previous code.

The second setting makes it easier to work in R Notebooks, which is the preferred medium for writing code.

Libraries to install

Open RStudio and at the > in the Console, run this line of code:
install.packages(c("tidyverse","janitor","lubridate","readxl"))

There are many valuable libraries you may need to install, but these are good to start with.