

Installing R

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Installing R and R Studio

R is a programming language for statistical computing, but it is useful for a wide variety of applications! It is maintained internationally by a team of developers through the Comprehensive R Archive Network (CRAN). In order to run your R code, you will first need to have R installed! R runs on many different operating systems (OS), select the link below that corresponds to your needs:
Select this [link](#) to download R for Mac.

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-archival.r-project.org>) accordingly.

R 4.0.5 "Shake and Throw" released on 2021/03/31

Please check the SHA1 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type `openssl sha1 R-4.0.5.pkg` in the *Terminal* application to print the SHA1 checksum for the R-4.0.5.pkg image. On Mac OS X 10.7 and later you can also validate the signature using `pkgutil --check-signature R-4.0.5.pkg`

Latest release:

[R-4.0.5.pkg](#) (notarized and signed)
SHA1 hash: 208130310119eae9272365f6abce122826132
(ca. 85MB)

R 4.0.5 binary for macOS 10.13 (High Sierra) and higher, signed and notarized package. Contains R 4.0.5 framework, R.app GUI 1.74 in 64-bit for Intel Macs, Tcl/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. Also please do not install beta versions of XQuartz (even if offered).

This release supports Intel Macs, but it is also known to work using Rosetta2 on M1-based Macs. Native Apple silicon binary is expected for R 4.1.0 if support for Fortran sabilizes, for experimental builds and updates see [mac.R-project.org](#).

Important: this release uses Xcode 12.4 and GNU Fortran 8.2. If you wish to compile R packages from sources, you will need to download GNU Fortran 8.2 - see the [tools](#) directory.

Select this [link](#) to download R for Windows.

R-4.0.5 for Windows (32/64 bit)

[Download R 4.0.5 for Windows](#) (85 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`.

Last change: 2021-03-31

Select this [link](#) to download R for Linux.

To install on any of the OS's, select the Download R for [your operating system] from the links above. Then an installer will guide you through the installation. Linux usually has R already installed, but if you want the most recent or updated version of R, you can download it via the link above.

During the installation process, you will be promoted to select the right time zone and CRAN mirror (web server) in the installation process. Select the mirror that is closest to your location. Here are two options for the UK: [University of Bristol](#)
[Imperial College London](#)

Installing and downloading R Studio

R Studio is a software program that allows you to save your R code and is really helpful! Now, to create, write, and run your R code, you can install the R Studio IDE (integrated development environment) [here](#). After clicking on that link, select [Download RStudio Desktop](#). Then you can download the appropriate version to your OS. This image below shows the steps and webpage on the above link:

RStudio Desktop 1.4.1106 - [Release Notes](#)

1. Install R. RStudio requires R 3.0.1+.
2. Download RStudio Desktop. Recommended for your system:



All Installers

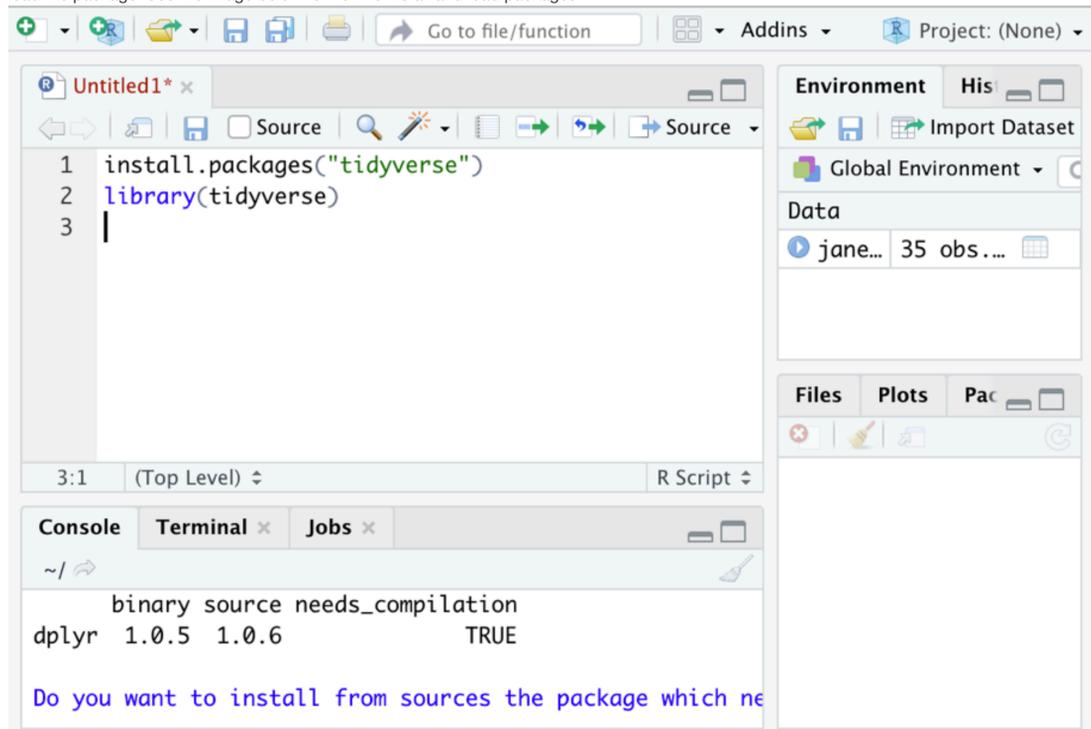
Linux users may need to [import RStudio's public code-signing key](#) prior to installation, depending on the operating system's security policy.

RStudio requires a 64-bit operating system. If you are on a 32 bit system, you can use an [older version of RStudio](#).

OS	Download	Size	SHA-256
Windows 10	RStudio-1.4.1106.exe	155.97 MB	d2ff8453
macOS 10.13+	RStudio-1.4.1106.dmg	153.35 MB	c64d2cda
Ubuntu 16	rstudio-1.4.1106-amd64.deb	118.45 MB	1fc82387
Ubuntu 18/Debian 10	rstudio-1.4.1106-amd64.deb	121.07 MB	3b5d3835
Fedora 19/Red Hat 7	rstudio-1.4.1106-x86_64.rpm	138.18 MB	a9e6ddc4

Once you have finished the installation, R Studio is ready for action.

In order to run certain types of functions, you might have to install different packages. Today we will be using the following packages: tidyverse, tidytext, rtweet, quanteda, and ggplot. To install the packages, type `install.packages("packageName")` you can then type `library(packageName)` to load the package. See the image below for how to install and load packages:

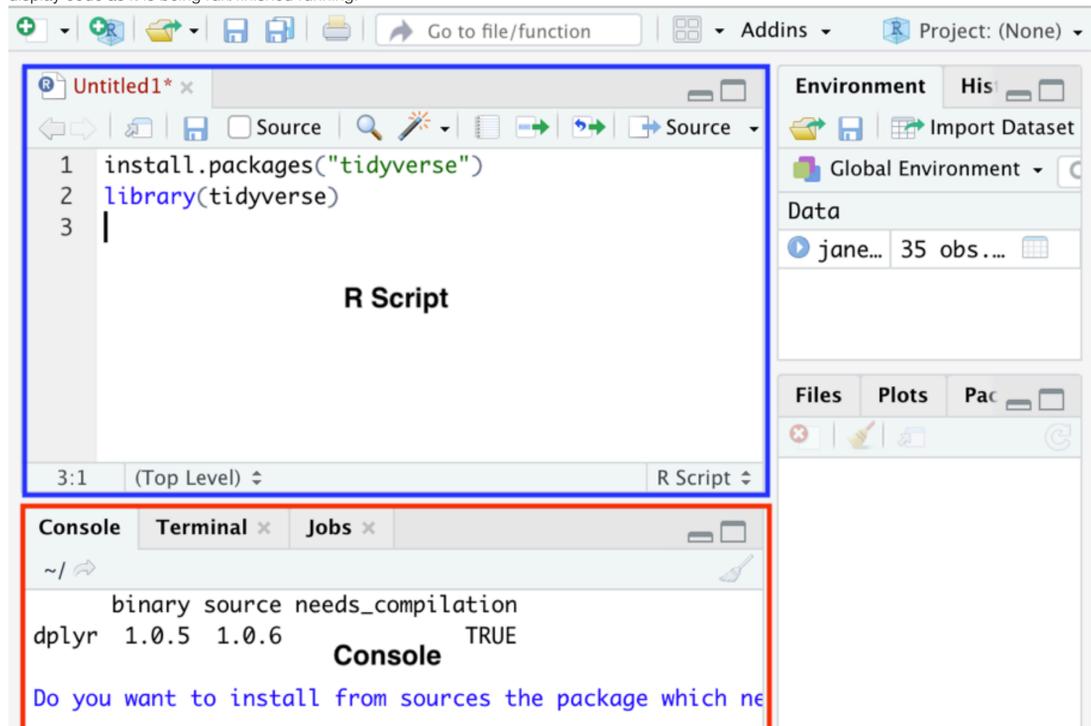


In order to run these, either select the Run button in the top right corner of your IDE, shown below:



or hit control+enter on your keyboard.

The top portion of your screen will be where you can write, comment, and save all your code. The Console will be underneath this, and will display code as it is being run/finished running.



Now you are ready to start your projects!

Recommended Resources:

[R Studio cheatsheets](#): These are very useful! and include helpful functions and how-to's depending on your data needs. For working with text the stringR cheatsheet is especially helpful.

[Rswirl](#): interactive learning session for how to use different packages; learn how to use R in R!

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