

Getting Started with R & R Studio

CS 637 Time Series and Forecasting

From the R-Project website – R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS.

R is the underlying programming language that is used in **R Studio**. R Studio is the front-end integrated development environment (IDE) that allows for convenient usage of the R programming language.

Installing R

To install R, we're required to select a mirror for the installation. For convenience, we'll select the Microsoft mirror.

1. Navigate to <https://cran.microsoft.com/>
2. Select the download for your operating system
 - a. For Windows users

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 \geq 2.13.x; managed by Uwe Ligges). There is also information on third party software available for CRAN Windows services and corresponding environment and make variables.
old.contrib	Binaries of contributed CRAN packages for outdated versions of R (for R < 2.13.x; managed by Uwe Ligges).
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.

R-4.1.1 for Windows (32/64 bit)

Download R 4.1.1 for Windows	86 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.

b. For Mac users

R for macOS

This directory contains binaries for a base distribution and packages to run on macOS. Releases for old Mac OS X systems (through Mac OS X 10.5) and PowerPC Macs can be found in the [old](#) directory.

Note: 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 4.1.1 "Kick Things" released on 2021/08/10

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-4.1.1.pkg
```

in the *Terminal* application to print the SHA1 checksum for the R-4.1.1.pkg image. On Mac OS X 10.7 and later you can also validate the signature using

```
pkgutil --check-signature R-4.1.1.pkg
```

Latest release:

R-4.1.1.pkg
SHA1:
hash: d0eed7d0755bc80911acb61650841e1396810e
(ca. 86MB)

notarized and signed) **R 4.1.1** binary for macOS 10.13 (High Sierra) and higher, **Intel 64-bit** build, signed and notarized package.
Contains R 4.1.1 framework, R.app GUI 1.77 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.

- c. If any issues – please check out the “Frequently asked questions” section on the site.
Topics there may address common questions or obstacles people run into.

- Once the download is complete, open the file to begin the installation process
- Complete the installation by continuing with all the preset, default options. We do not have a need to adjust any of these for our needs!

Installing R Studio

- Navigate to <https://www.rstudio.com/products/rstudio/download/>
- Navigate to the bottom of the page, where you can select your download based on your operating system. Select the appropriate download.

OS	Download	Size	SHA-256
Windows 10	RStudio-1.4.1717.exe	156.18 MB	71b36e64
macOS 10.14+	RStudio-1.4.1717.dmg	203.06 MB	2cf2549d
Ubuntu 18/Debian 10	rstudio-1.4.1717-amd64.deb	122.51 MB	e27b2645
Fedora 19/Red Hat 7	rstudio-1.4.1717-x86_64.rpm	138.42 MB	648e2be0
Fedora 28/Red Hat 8	rstudio-1.4.1717-x86_64.rpm	138.39 MB	c76f620a
Debian 9	rstudio-1.4.1717-amd64.deb	123.29 MB	e4ea3a60
OpenSUSE 15	rstudio-1.4.1717-x86_64.rpm	123.15 MB	e69d55db

- Once downloaded, similar to the R installation, we can navigate the installer by accepting the default settings and clicking “next” until the installation begins