R Installation

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1 What is R?

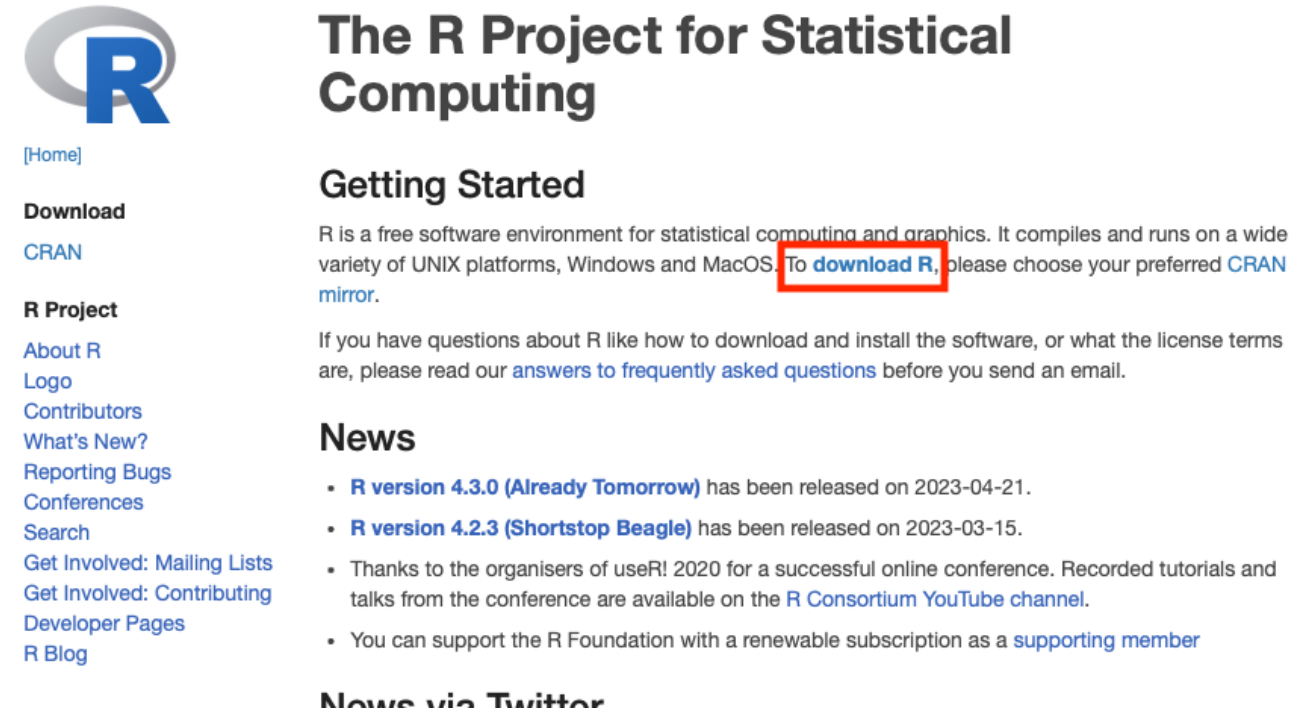
R is a free programming language and software environment that is broadly use for data wrangling, statistical computing and graphical representation. It can be run on a wide variety of UNIX platforms, Windows and MacOS.

The R project is a collaborative effort between the R developers and its community. Every R user can develop its own packages to run in the R environment and solve different problems or necessities. R is quite powerful but it can be challenging to use. Because of that we used R-studio, which is an integrated development environment (IDE). This IDE includes a console, syntax-highlighting editor that supports direct code execution, and tools for plotting, history, debugging, and workspace management.

Please follow the following guide to install R and R-studio.

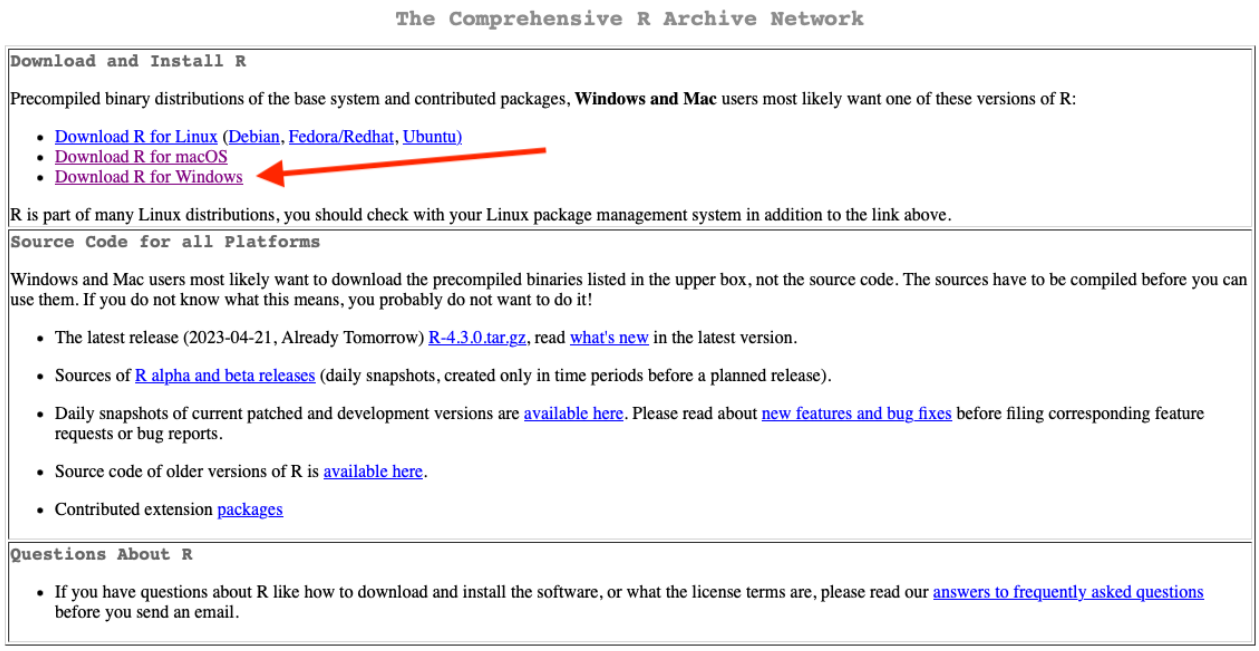
1.1 Installing R

1. Go to The R project website and click on download R.



2. Next, select a repository that is preferably located in the country that you are currently residing.

3. After, select the the operating system (OS) that you have in your machine. For the following example, I will show the steps for the windows OS, however the instructions for the other OS are quite similar.



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.

Source Code for all Platforms

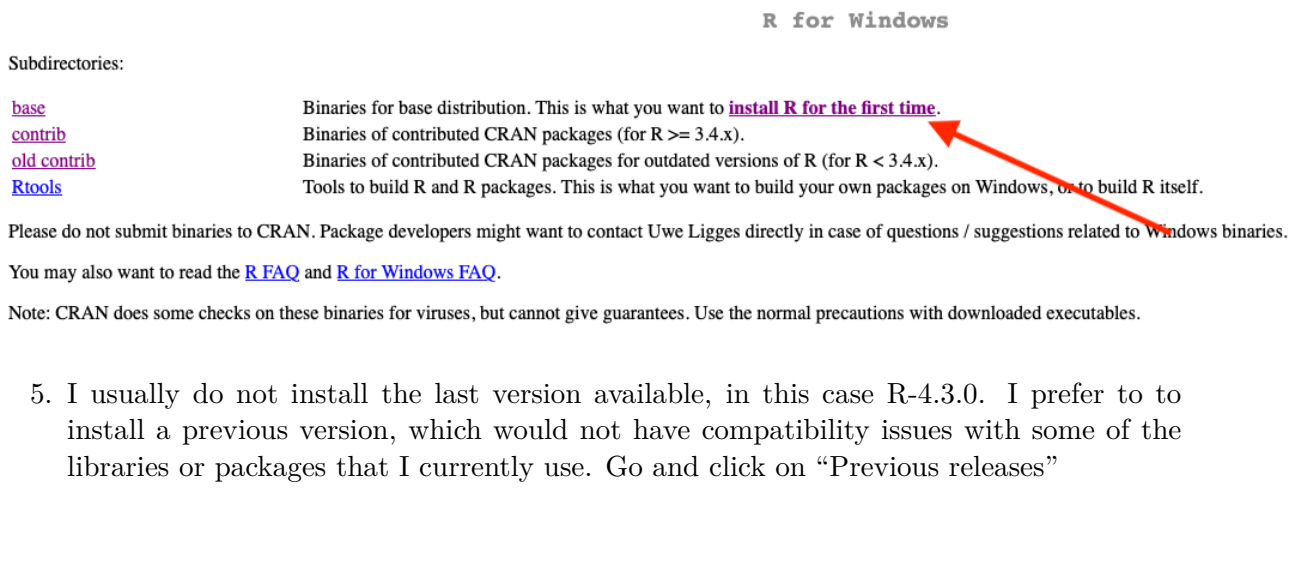
Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2023-04-21, Already Tomorrow) R-4.3.0.tar.gz, read what's new in the latest version.
- Sources of R alpha and beta releases (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are available here. Please read about new features and bug fixes before filing corresponding feature requests or bug reports.
- Source code of older versions of R is available here.
- Contributed extension packages

Questions About R

- If you have questions about R like how to download and install the software, or what the license terms are, please read our answers to frequently asked questions before you send an email.

4. Here you can click on "install R for the first time" or "base".



R for Windows

Subdirectories:

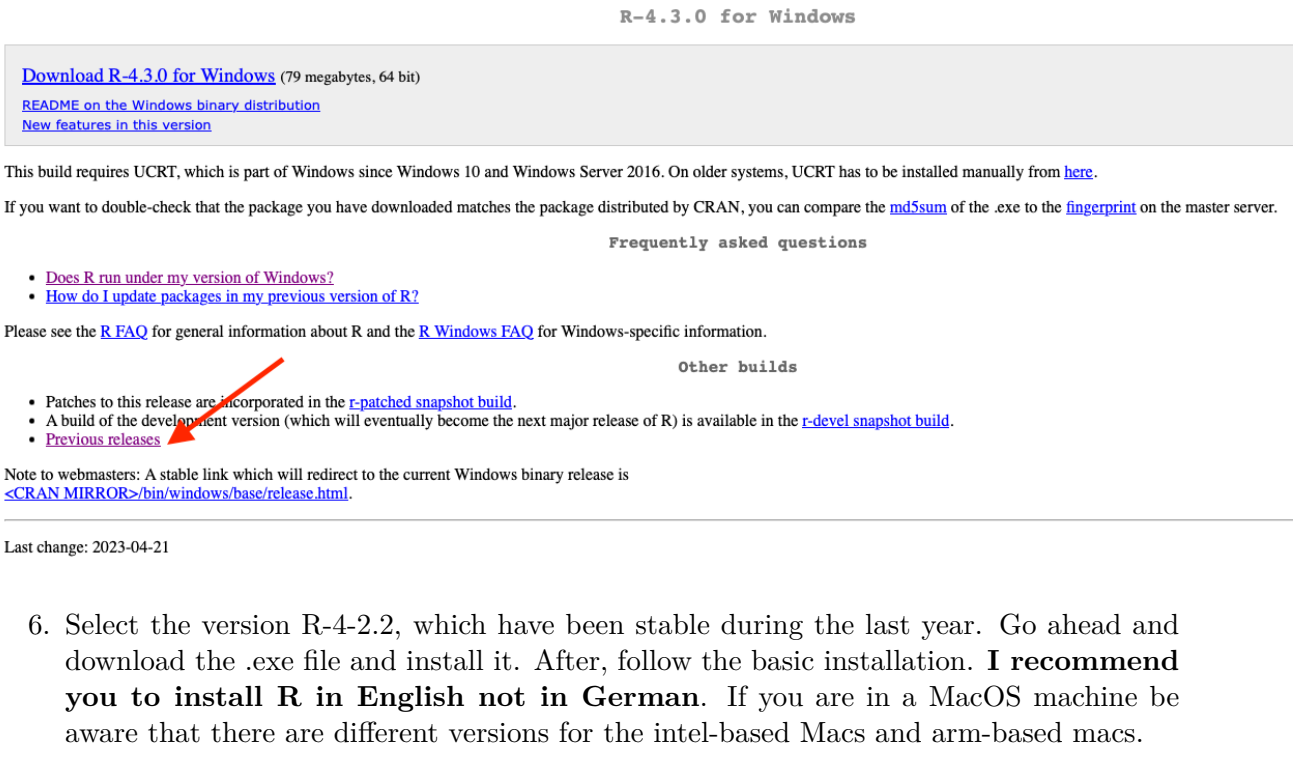
base	Binaries for base distribution. This is what you want to **install R for the first time**.
contrib	Binaries of contributed CRAN packages (for R >= 3.4.x).
old contrib	Binaries of contributed CRAN packages for outdated versions of R (for R < 3.4.x).
Rtools	Tools to build R and R packages. This is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

5. I usually do not install the last version available, in this case R-4.3.0. I prefer to to install a previous version, which would not have compatibility issues with some of the libraries or packages that I currently use. Go and click on "Previous releases"



R-4.3.0 for Windows

Download R-4.3.0 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

- Does R run under my version of Windows?
- How do I update packages in my previous version of 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: 2023-04-21

6. Select the version R-4-2.2, which have been stable during the last year. Go ahead and download the .exe file and install it. After, follow the basic installation. **I recommend you to install R in English not in German**. If you are in a MacOS machine be aware that there are different versions for the intel-based Macs and arm-based macs.

Previous Releases of R for Windows

This directory contains previous binary releases of R for Windows.

The current release, and links to development snapshots, are available here. Source code for these releases and others is available through the main CRAN page.

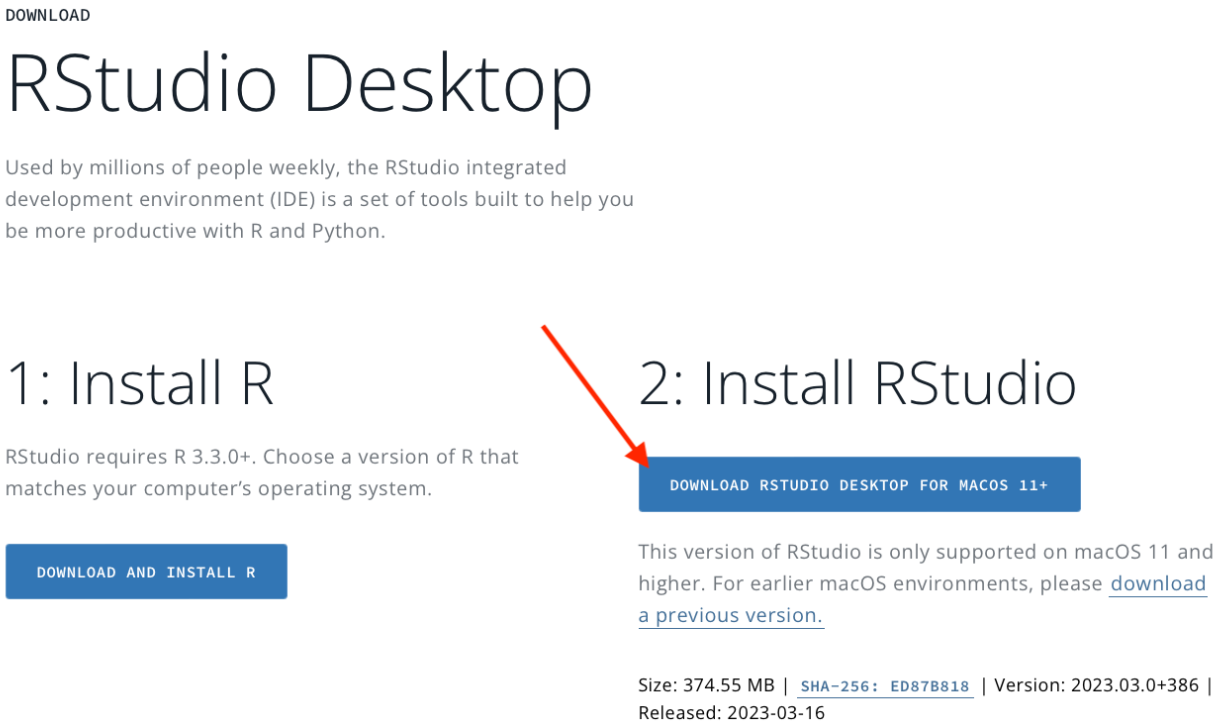
In this directory:

R 4.3.0 (April, 2023)
R 4.2.3 (March, 2023)
R 4.2.2 (October, 2022)
R 4.2.1 (June, 2022)
R 4.2.0 (April, 2022)
R 4.1.3 (March, 2022)
R 4.1.2 (November, 2021)
R 4.1.1 (August, 2021)
R 4.1.0 (May, 2021)
R 4.0.5 (March, 2021)
R 4.0.4 (February, 2021)
R 4.0.3 (October, 2020)
R 4.0.2 (June, 2020)
R 4.0.1 (June, 2020)
R 4.0.0 (April, 2020)
R 3.6.3 (February, 2020)
R 3.6.2 (December, 2019)
R 3.6.1 (July, 2019)
R 3.6.0 (April, 2019)

In the CRAN archives (https://cran-archive.r-project.org/bin/windows/base/old/):

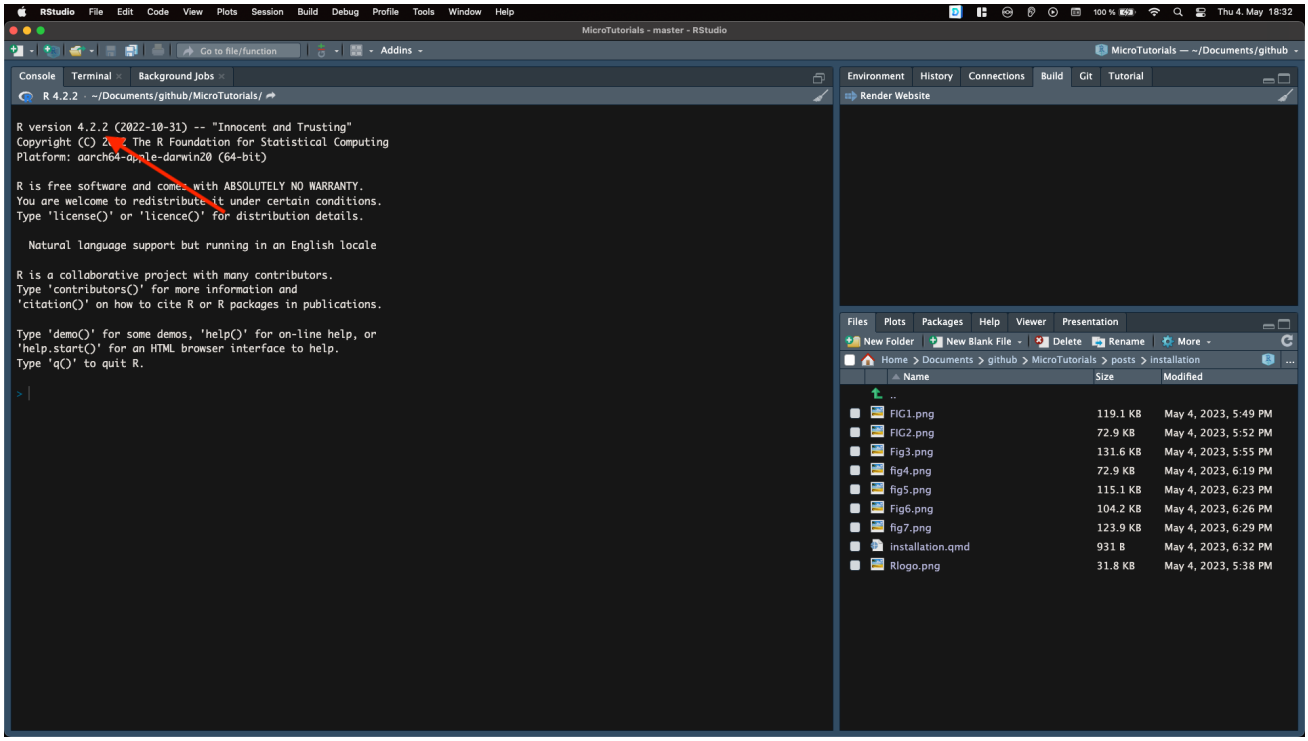
1.2 R-studio installation

1. After a successful R installation, we need to install the RStudio IDE. Go to R-studio website and click on "Donwlad RStudio desktop". You can download the last version available of RStuio, follow the basic installation. **I recommend you to install RStudio in English not in German**.



2. Finally, open RStudio and check in the console that the correct version of R is running under the hood.

Now Enjoy!!!!!!!!!


RStudio File Edit Code View Plots Session Build Debug Profile Tools Window Help
Thu 4. May 18:32
MicroTutorials - master - RStudio
Go to file/function
Addins
MicroTutorials — ~/Documents/github
Console
Terminal
Background Jobs
R 4.2.2 · ~/Documents/github/MicroTutorials/
R version 4.2.2 (2022-10-31) -- "Innocent and Trusting"
Copyright (C) 2022 The R Foundation for Statistical Computing
Platform: aarch64-apple-darwin20 (64-bit)
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.
Environment
History
Connections
Build
Git
Tutorial
Render Website
Files
Plots
Packages
Help
Viewer
Presentation
New Folder
New Blank File
Delete
Rename
More
Home > Documents > github > MicroTutorials > posts > installation
Name
Size
Modified
FIG1.png 119.1 KB May 4, 2023, 5:49 PM
FIG2.png 72.9 KB May 4, 2023, 5:52 PM
Fig3.png 131.6 KB May 4, 2023, 5:55 PM
fig4.png 72.9 KB May 4, 2023, 6:19 PM
fig5.png 115.1 KB May 4, 2023, 6:23 PM
Fig6.png 104.2 KB May 4, 2023, 6:26 PM
fig7.png 123.9 KB May 4, 2023, 6:29 PM
installation.qmd 931 B May 4, 2023, 6:32 PM
Rlogo.png 31.8 KB May 4, 2023, 5:38 PM