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.

The R Project for Statistical Computing

[Home]

Download

CRAN

R Project

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Getting Started

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. To **download R**, please choose your preferred CRAN mirror.

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.

News

- **R version 4.3.0 (Already Tomorrow)** has been released on 2023-04-21.
- **R version 4.2.3 (Shortstop Beagle)** has been released on 2023-03-15.
- Thanks to the organisers of useR! 2020 for a successful online conference. Recorded tutorials and talks from the conference are available on the R Consortium YouTube channel.
- You can support the R Foundation with a renewable subscription as a supporting member

News via Twitter

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

France
https://pbil.univ-lyon1.fr/CRAN/	Dept. of Biometry & Evol. Biology, University of Lyon
https://mirror.ibcp.fr/pub/CRAN/	CNRS IBCP, Lyon
https://cran.biotools.fr/	IBDM, Marseille
https://cran.irsn.fr/	French Nuclear Safety Institute, Paris

Germany
https://ftp.fau.de/cran/	Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)
https://mirror.dogado.de/cran/	dogado GmbH
https://ftp.gwdg.de/pub/misc/cran/	GWDG Göttingen
https://mirror.clientvps.com/CRAN/	ClientVPS
https://packages.othr.de/cran/	OTH Regensburg

Greece
https://ftp.cc.uoc.gr/mirrors/CRAN/	University of Crete

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.

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.

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

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"

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/):
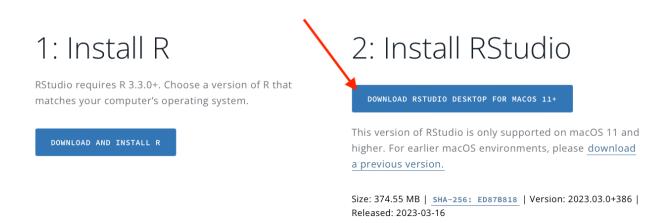
1.2 R-studio installation

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**.

DOWNLOAD

RStudio Desktop

Used by millions of people weekly, the RStudio integrated development environment (IDE) is a set of tools built to help you be more productive with R and Python.

1: Install R

RStudio requires R 3.3.0+. Choose a version of R that matches your computer's operating system.

DOWNLOAD AND INSTALL R

2: Install RStudio

DOWNLOAD RSTUDIO DESKTOP FOR MACOS 11+

This version of RStudio is only supported on macOS 11 and higher. For earlier macOS environments, please download a previous version.

Size: 374.55 MB | SHA-256: ED87B818 | Version: 2023.03.0+386 | Released: 2023-03-16

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

Now Enjoy!!!!!!!!!