

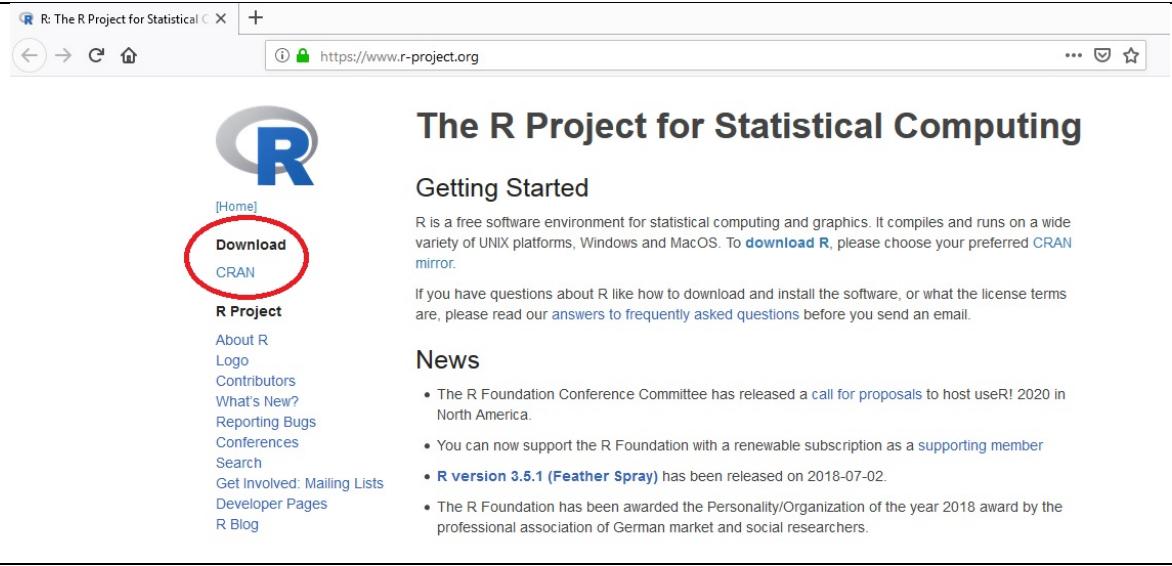
DESCARGAR E INSTALAR R Y RStudio.

1.1. Instalación de R.

Para instalar R en nuestro ordenador, vamos a la página web de *R project*:

<https://www.r-project.org/> (ver Figura 1).

Figura 1. Página web de R.



The R Project for Statistical Computing

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

- The R Foundation Conference Committee has released a call for proposals to host useR! 2020 in North America.
- You can now support the R Foundation with a renewable subscription as a supporting member
- R version 3.5.1 (Feather Spray)** has been released on 2018-07-02.
- The R Foundation has been awarded the Personality/Organization of the year 2018 award by the professional association of German market and social researchers.

Para descargar R, hacemos clic en *CRAN* y seleccionamos el enlace del “espejo” más próximo a nuestra ubicación (SPAIN). Hacer clic sobre cualquiera de los cuatro enlaces que se facilitan.

Ahora, en función del sistema operativo de nuestro ordenador, seleccionamos la opción adecuada (ver Figura 2).

Figura 2. Versiones de R.

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](#)
- [Download R for \(Mac\) OS X](#)
- [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.

a) Instalar R en Windows.

Al hacer clic sobre *Download R for Windows* iremos a la página que se reproduce más abajo. Hacemos clic sobre *install R for the first time* (ver Figura 3).

Figura 3. R para Windows.

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 >= 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.

En la siguiente ventana, hacemos clic sobre **Download R 3.5.2 for Windows** y guardamos el archivo de instalación (ver Figura 4).

Figura 4. Descargar R para Windows (SE HA ACTUALIZADO LA VERSION A R 3.5.2)

R-3.5.1 for Windows (32/64 bit)

[Download R 3.5.1 for Windows](#) (2 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.

Abrimos el archivo descargado (haciendo doble clic sobre fichero) para instalar R.

b) Instalar R en Mac.

Al hacer clic sobre *Download R for (Mac) OS X* iremos a la página que se reproduce más abajo. Hacemos clic sobre **R-3.5.2.pkg** para descargarnos el fichero de instalación (ver Figura 5).

Figura 5. R para Mac (SE HA ACTUALIZADO LA VERSION A R-3.5.2.pkg).

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.

As of 2016/03/01 package binaries for R versions older than 2.12.0 are only available from the [CRAN archive](#) so users of such versions should adjust the CRAN mirror setting accordingly.

R 3.5.1 "Feather Spray" released on 2018/07/05

Important: since R 3.4.0 release we are now providing binaries for OS X 10.11 (El Capitan) and higher using non-Apple toolkit to provide support for OpenMP and C++17 standard features. To compile packages you may have to download tools from the [tools](#) directory and read the corresponding note below.

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type `md5 R-3.5.1.pkg` in the *Terminal* application to print the MD5 checksum for the R-3.5.1.pkg image. On Mac OS X 10.7 and later you can also validate the signature using `pkgutil --check-signature R-3.5.1.pkg`

Lastest release:

[R-3.5.1.pkg](#)
MD5-hash: 58eef5fb024f267ef1e521e17e7ff8
SHA1-sum: 6c01bf62ad899d5f4a4511e25d17276d149621
(ca. 74MB)

R 3.5.1 binary for OS X 10.11 (El Capitan) and higher, signed package. Contains R 3.5.1 framework, R.app GUI 1.70 in 64-bit for Intel Macs, Tcl/Tk 8.6.6 X11 libraries and Texinfo 5.2. 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.

Important: this release uses Clang 6.0.0 and GNU Fortran 6.1, neither of which is supplied by Apple. If you wish to compile R packages from sources, you will need to download and install those tools - see the [tools](#) directory.

Abrimos *R-3.5.2.pkg* y seguimos las instrucciones para instalar R.

1.2. Instalar RStudio.

Una vez que hemos instalado R, descargamos RStudio desde el siguiente enlace (ver Figura 6):

<https://www.rstudio.com/products/rstudio/download/#download>

Figura 6. Descargar RStudio.

The screenshot shows the RStudio download page. At the top, there's a navigation bar with links for Products, Resources, Pricing, About Us, Blogs, and a search icon. Below the navigation, it says "RStudio Desktop 1.1.463 — Release Notes". It notes that RStudio requires R 3.0.1+. There's a link to download R if you don't have it. It also mentions that Linux users may need to import RStudio's public code-signing key. The main content is a table titled "Installers for Supported Platforms" with columns for Installers, Size, Date, and MD5. The table lists various versions for different operating systems and architectures.

| Installers | Size | Date | MD5 |
|--|---------|------------|-----------------------------------|
| RStudio 1.1.463 - Windows Vista/7/8/10 | 85.8 MB | 2018-10-29 | 58b3d796d8cf96fb8580c62f46ab64d4 |
| RStudio 1.1.463 - Mac OS X 10.6+ (64-bit) | 74.5 MB | 2018-10-29 | a79032ba4d7daaa86a8da01948278d94 |
| RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (32-bit) | 89.3 MB | 2018-10-29 | 8a6755fa9fae2bafce289df3358aaef63 |
| RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (64-bit) | 97.4 MB | 2018-10-29 | bc50d6bd34926c1cc3ae4a209d67d649 |
| RStudio 1.1.463 - Ubuntu 16.04+/Debian 9+ (64-bit) | 65 MB | 2018-10-29 | cf659db18619cc78d1592fefaa7c753 |
| RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit) | 88.1 MB | 2018-10-29 | 742f0bad60dfeaa3281576e14ad6699e |
| RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit) | 90.6 MB | 2018-10-29 | c7303067a0ca99deea7e427b856952d1 |

Para descargar el fichero ejecutable, seleccionamos la opción según nuestro sistema operativo:

- RStudio 1.1.463 - Windows Vista/7/8/10
- RStudio 1.1.463 - Mac OS X 10.6+ (64-bit)

Primero, guardamos el fichero. A continuación, lo abrimos para instalar RStudio. Seguimos las instrucciones de instalación.