Introducción a R

Instalación y otros

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R

https://www.r-project.org/

¿Que es R?

- Es un lenguaje de programación para análisis estadísticos y gráficos, gratuito, creado por lhaka y Gentleman (1996).
- Lenguaje orientado a Objetos: Un objeto, es cualquier cosa que puede ser asignada a una variable.
- Interface para otros lenguajes.
- Facilidad de depuración y proceso de datos.

RStudio (IDE)

https://www.rstudio.com/

¿Que es RStudio?

RStudio

 RStudio es un entorno de desarrollo integrado gratuito y de código abierto para R. RStudio fue fundada por JJ Allaire, creador del lenguaje de programación ColdFusion.

Packages

¿Qué son los Packages?

- En R, la unidad fundamental de código compartible es el paquete.
- Un paquete agrupa código, datos, documentación y pruebas, y es fácil de compartir con otros.
- A partir de enero de 2015, había más de 6,000 paquetes disponibles en Comprehensive R Archive Network, o CRAN, la cámara de compensación pública para paquetes de R.
- Esta gran variedad de paquetes es una de las razones por las que R es tan exitosa: lo más probable es que alguien ya haya resuelto un problema en el que estás trabajando, y puedes beneficiarte de su trabajo descargando su paquete.

¿Por qué escribir un Package?

- Una razón, es que usted tiene un código que desea compartir con otros.
 Agrupar su código en un paquete facilita que otras personas lo utilicen, porque al igual que usted, ya saben cómo usar los paquetes.
- Si su código está en un paquete, cualquier usuario R puede descargarlo fácilmente, instalarlo y aprender a usarlo.

Instalación y uso de los Packages

Instalacion:

install.packages("nombre_del_package")

Uso:

library("nombre_del_package")

Descargando e instalando R



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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.

http://mirror.its.dal.ca/cran/
http://cran.utstat.utoronto.ca/
Chile
https://dirichlet.mat.puc.cl/
http://dirichlet.mat.puc.cl/
https://cran.dcc.uchile.cl/
China

https://mirrors.tuna.tsinghua.edu.cn/CRAN/ http://mirrors.tuna.tsinghua.edu.cn/CRAN/ Dalhousie University, Halifax University of Toronto

Pontificia Universidad Catolica de Chile, Santiago Pontificia Universidad Catolica de Chile, Santiago Departamento de Ciencias de la Computación, Universidad de Chile

TUNA Team, Tsinghua University TUNA Team, Tsinghua University



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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
- 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.

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 (2018-07-02, Feather Spray) <u>R-3.5.1.tar.gz</u>, read <u>what's new</u> 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 <u>available here</u>.
 Please read about <u>new features and bug fixes</u> before filing corresponding feature requests or bug reports.



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Subdirectories:

contrib

Binaries for base distribution. This is what you want to install R for the first time.

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 RFAQ 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.



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R-3.5.1 for Windows (32/64 bit)

Download R 3.5.1 for Windows (62 megabytes, 32/64 bit)

<u>Installation and other instructions</u> <u>New features in this version</u>

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

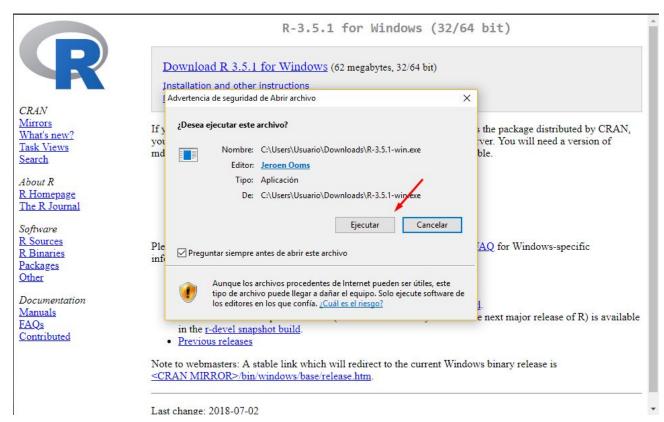
- Does R run under my version of Windows?
- How do I update packages in my previous version of R?
- Should I run 32-bit or 64-bit R?

Please see the <u>R FAQ</u> for general information about R and the <u>R Windows FAQ</u> for Windows-specific information.

Other builds

- Patches to this release are incorporated in the <u>r-patched snapshot build</u>.
- A build of the development version (which will eventually become the next major release of R) is available
 in the <u>r-devel snapshot build</u>.
- Previous releases

Note to webmasters: A stable link which will redirect to the current Windows binary release is <u><CRAN MIRROR</u> /bin/windows/base/release.htm.





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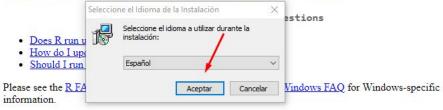
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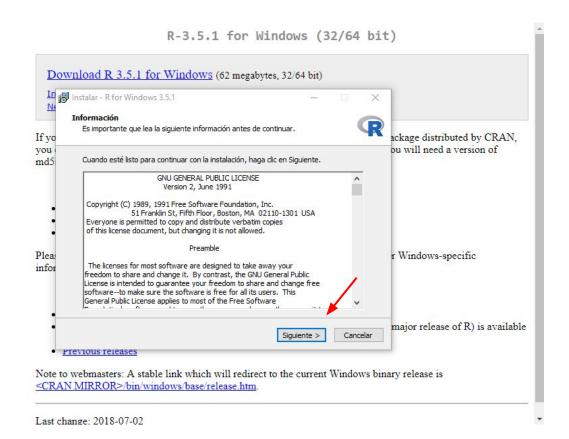
Last change: 2018-07-02



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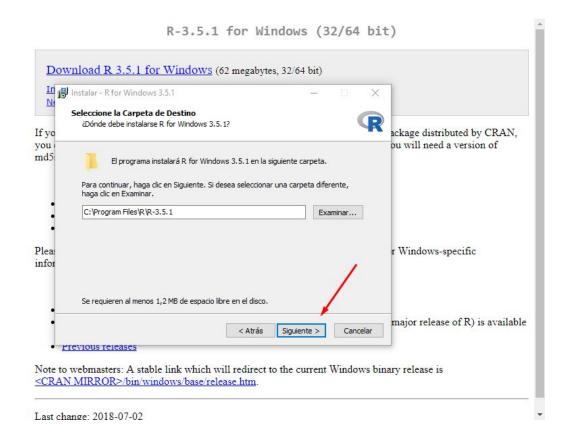




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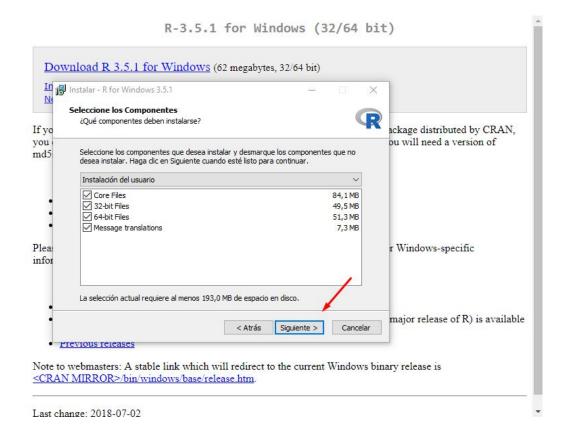




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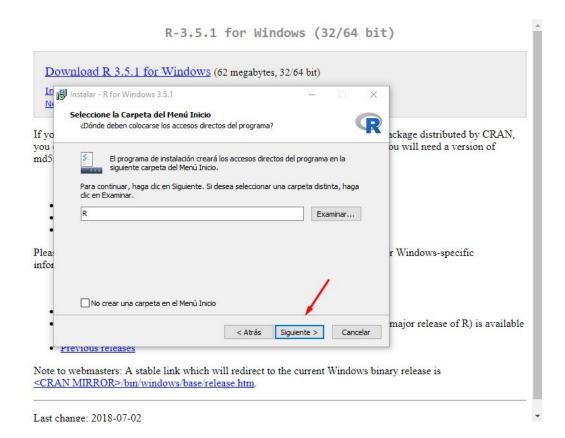




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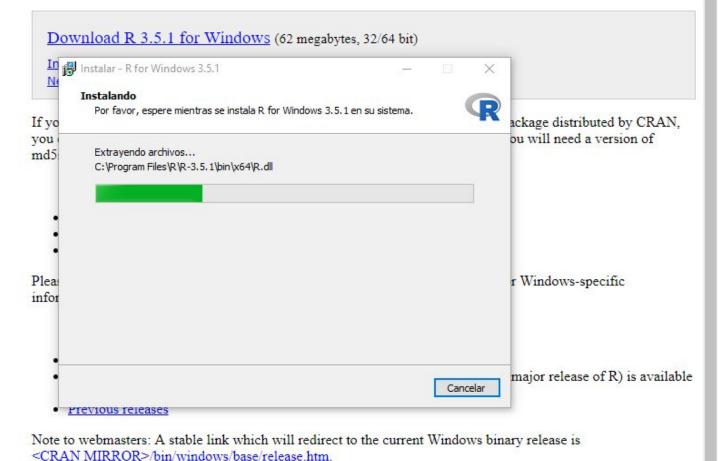
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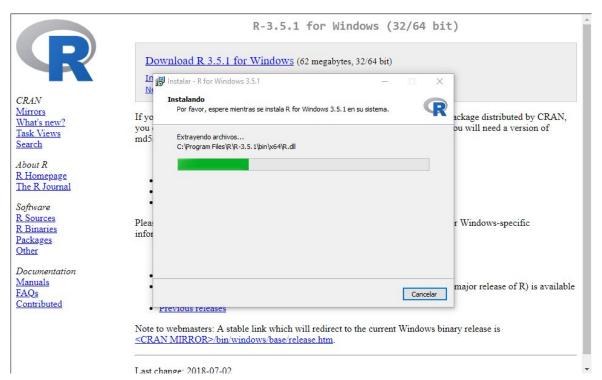
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Choose Your Version of RStudio

RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, and a variety of robust tools for plotting, viewing history, debugging and managing your workspace. Learn More about RStudio features.





Descargando RStudio

Installers for Supported Platforms

| 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 | 8a6755fa9fae2bafce289df3358aaf63 |
| 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 | cfd659db18619cc78d1592fefaa7c753 |
| 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- | Try RStudio Server Pro for free! |

Zip/Tarballs

```
C:\Program Files (x86)\MySQL\MySQL Installer for Windows\MySQLInstallerConsole.exe
           ========= Start Initialization ==========
 MySQL Installer is running in Community mode
Initializing product requirements
Loading product catalog
Checking for product catalog snippets
Checking for product packages in the bundle
Categorizing product catalog
Finding all installed packages.
```

