



Introducción a RProject / RStudio

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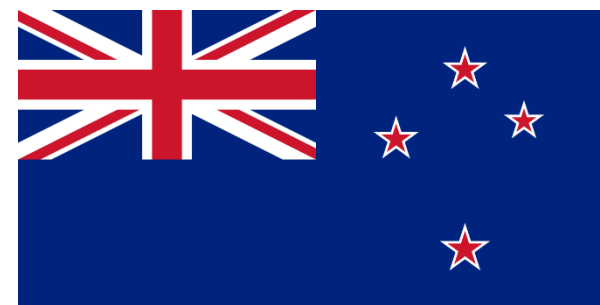
Historia



Ross Ihaka



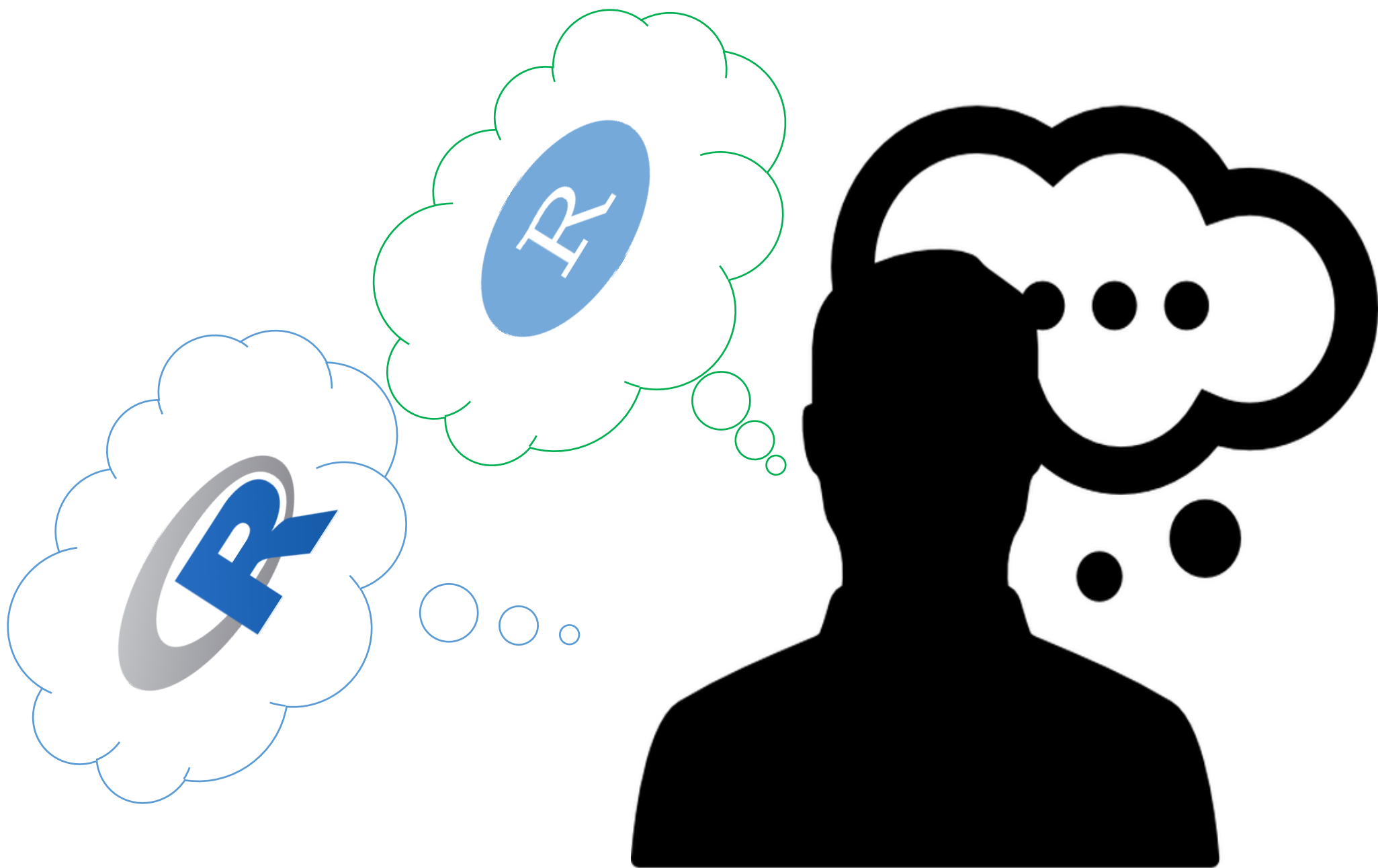
**Robert
Gentleman**



Lenguaje S

GNU

<https://cran.r-project.org/doc/Rnews/>



¿Qué es?



Es el software de referencia en el mundo de la Estadística, la herramienta más potente y eficiente del mercado.

Gracias a que puede accederse libremente a su código, R software no tiene limitadas sus funciones, al contrario de lo que sucede con otras herramientas estadísticas comerciales como **Statistica**, **SPSS**, etc.

Características

- Diseñar modelos de análisis complejos.
- Resolver problemas estadísticos avanzados.
- Transformar los datos en conocimiento
- Comunicar de forma eficaz los resultados.
- Tomar decisiones con el mínimo margen de error
- Ampliar el alcance de publicaciones científicas.
- Aplicar las técnicas estadísticas más adecuadas para su análisis (clásicas, robustas (análisis de **Outliers**), avanzadas y multivariantes (Data Mining y Big Data)).

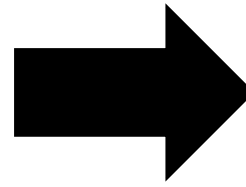
Las claves para dominar el lenguaje R son:

- Contar con un guía experto: que te asesore y muestre paso a paso el funcionamiento de R y sus posibilidades.
- Adoptar un enfoque pragmático: practicar con códigos de ejemplo y casos reales.



Ventajas

- Es de acceso libre y gratuito
- Su constante evolución con los años
- Colaboraciones por parte de investigadores.
- Ser el software número 1 para el correcto análisis de datos



Desventajas

- Lenguaje de programación lento
- Práctica



OPEN SOURCE SOFTWARE FOR BIOINFORMATICS

Aplicaciones

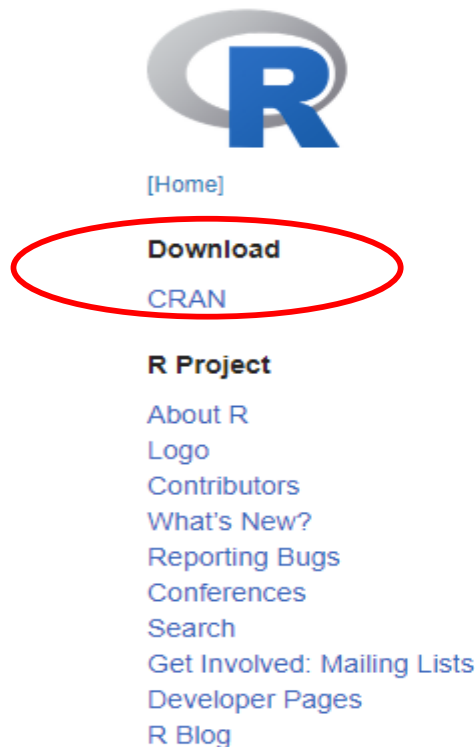


Instalación del programa

R Project



1) Para la instalación del programa R y del paquete R-Commander, con su navegador abra la página www.r-project.org. Marque el enlace Download R como se ilustra.



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

- **R version 3.6.1 (Action of the Toes)** has been released on 2019-07-05.
- useR! 2020 will take place in St. Louis, Missouri, USA.
- **R version 3.5.3 (Great Truth)** has been released on 2019-03-11.
- 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](#)

CRAN Mirrors

The Comprehensive R Archive Network is available at the following URLs, please choose a location close to you. Some statistics on the status of the mirrors can be found at [windows old release](#).

If you want to host a new mirror at your institution, please have a look at the [CRAN Mirror HOWTO](#).

0-Cloud

<https://cloud.r-project.org/>

Automatic redirection to servers worldwide, currently sponsored by Rstudio

Algeria

<https://cran.usthb.dz/>

University of Science and Technology Houari Boumediene

Argentina

<http://mirror.fcaglp.unlp.edu.ar/CRAN/>

Universidad Nacional de La Plata

Australia

<https://cran.csiro.au/>

CSIRO

<https://mirror.aarnet.edu.au/pub/CRAN/>

AARNET

<https://cran.ms.unimelb.edu.au/>

School of Mathematics and Statistics, University of Melbourne

<https://cran.curtin.edu.au/>

Curtin University of Technology

Austria

<https://cran.wu.ac.at/>

Wirtschaftsuniversität Wien

Mexico

<https://cran.itam.mx/>

Instituto Tecnológico Autónomo de México

<http://www.est.colpos.mx/R-mirror/>

Colegio de Postgraduados, Texcoco



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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 (2019-07-05, Action of the Toes) [R-3.6.1.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](#)

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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-3.6.1 for Windows (32/64 bit)

[Download R 3.6.1 for Windows](#) (81 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.

Seguir los mensajes que saldrán al a continuación y dar el botón de Aceptar, de esta manera comenzará la instalación del paquete en su computadora

Para (Mac)OS X

<https://www.youtube.com/watch?v=NxFIh5FSxAA>



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Para Linux

<https://www.youtube.com/watch?v=Dg4oAfTrl7I>



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¿Qué es?

Es una herramienta IDE (Integrated Development Environment) para R, libre y gratuita que facilita:

- Trabajar con R y gráficos de R de forma interactiva
- Organizar el código y mantener múltiples proyectos
- Mantenimiento de los paquetes de R
- Crear y compartir informes
- Compartir código y colaborar con otros usuarios

Características

- Integración de la consola de R
- Ejecución de código: permite ejecutar código directamente del script
- Resalta la sintaxis
- Ayuda con los paréntesis, corchetes y comillas
- Completado de comando
- Atajos de teclado
- Gestión del historial así como de proyectos
- Generación de documentos: del tipo PDF, HTML y otros con un solo click

Instalación


studio.com/products/rstudio/download/

ok Drive Bienvenido a Twitte... Empezar a numerar... Conservación de Es... Using CUSUM Char... Duolingo | Aprende... Primer registr...

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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.](#)




RStudio's new solution for every professional data science team. RStudio Team includes RStudio Server Pro, RStudio Connect and RStudio Package Manager. [LEARN MORE](#)

AGPL	Commercial	AGPL	Commercial
RStudio Desktop	RStudio Desktop	RStudio Server	RStudio Server Pro
FREE	\$995 per year	FREE	\$4,975 per year (5 Named Users)
DOWNLOAD	BUY	DOWNLOAD	BUY
Learn More	Learn More	Learn More	Evaluation Learn More

Seleccionar el Sistema Operativo de su elección:

Linux users may need to import RStudio's public code-signing key prior to installation, depending on the operating system's security

 **RStudio**

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RStudio 1.2 requires a 64-bit operating system, and works exclusively with the 64 bit version of R. If you are on a 32 bit system or need the 32 bit version of R, you can use an older version of RStudio.

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.2.1335 - Windows 7+ (64-bit)	126.9 MB	2019-04-08	d0e2470f1f8ef4cd35a669aa323a2136
RStudio 1.2.1335 - macOS 10.12+ (64-bit)	121.1 MB	2019-04-08	6c570b0e2144583f7c48c284ce299eef
RStudio 1.2.1335 - Ubuntu 14/Debian 8 (64-bit)	92.2 MB	2019-04-08	c1b07d0511469abfe582919b183eee83
RStudio 1.2.1335 - Ubuntu 16 (64-bit)	99.3 MB	2019-04-08	c142d69c210257fb10d18c045fff13c7
RStudio 1.2.1335 - Ubuntu 18/Debian 10 (64-bit)	100.4 MB	2019-04-08	71a8d1990c0d97939804b46cfb0aea75
RStudio 1.2.1335 - Fedora 19/RedHat 7 (64-bit)	114.1 MB	2019-04-08	296b6ef88969a91297fab6545f256a7a
RStudio 1.2.1335 - Debian 9 (64-bit)	100.6 MB	2019-04-08	1e32d4d6f6e216f086a81ca82ef65a91
RStudio 1.2.1335 - OpenSUSE 15 (64-bit)	101.6 MB	2019-04-08	2795a63c7efd8e2aa2dae86ba09a81e5
RStudio 1.2.1335 - SLES/OpenSUSE 12 (64-bit)	94.4 MB	2019-04-08	c65424b06ef6737279d982db9eefcae1

Zip/Tarballs

Zip/tar archives	Size	Date	MD5
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Una vez instalado RStudio

Buscar el ícono en su escritorio

