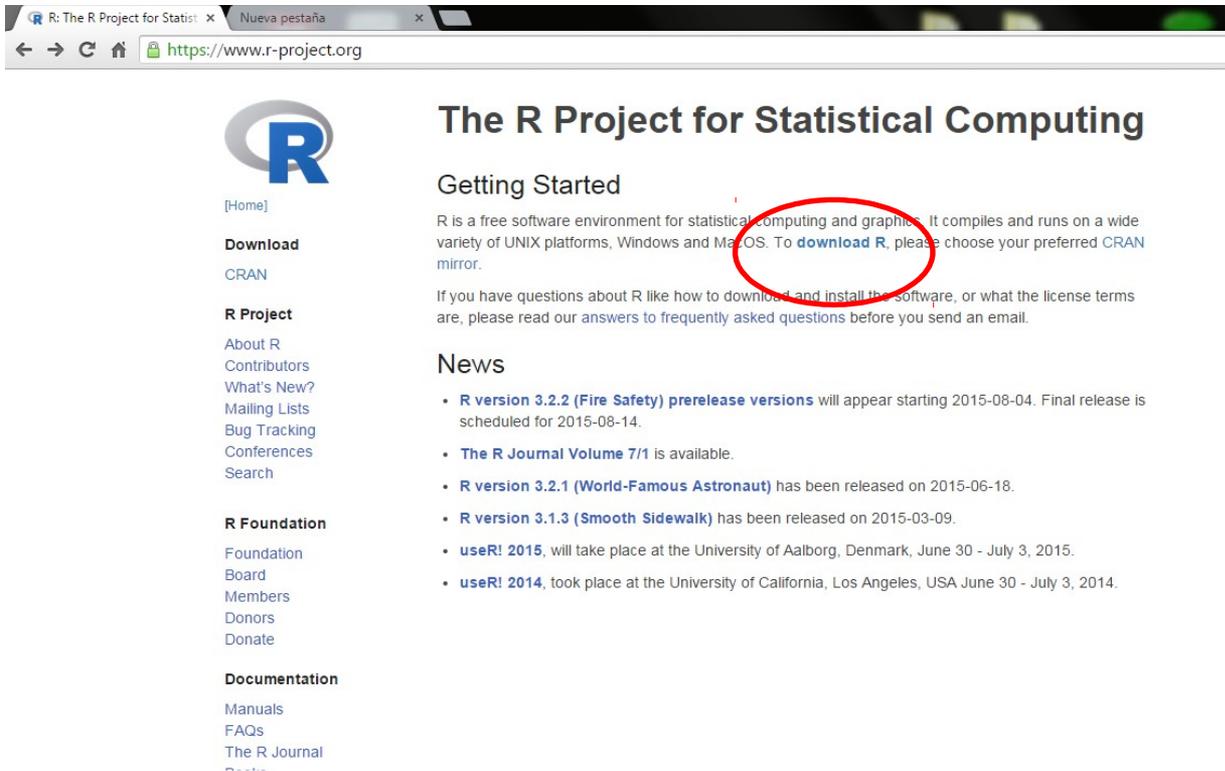


Installation instructions of R, Rstudio and opm on Windows

Maria del Carmen Montero Calasanz
Lea A. I. Vaas
Benjamin Hofner
Markus Göker

1. R installation

- Download the package from this link:
<https://www.r-project.org/>



The screenshot shows the homepage of the R Project for Statistical Computing. The browser address bar displays <https://www.r-project.org/>. The page features the R logo on the left, a navigation menu with categories like 'Download', 'R Project', 'R Foundation', and 'Documentation', and a main content area. The main content area includes the title 'The R Project for Statistical Computing', a 'Getting Started' section with a red circle around the words 'download and install', and a 'News' section with several bullet points.

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.

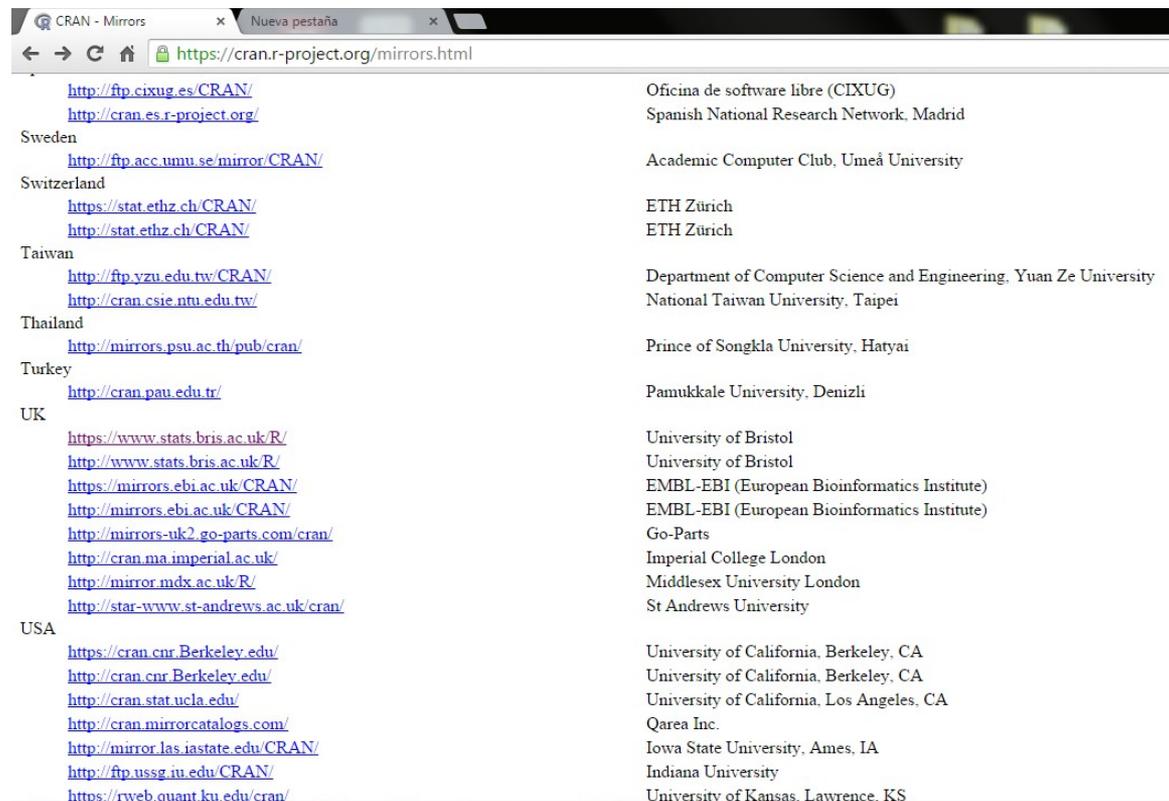
If you have questions about R like how to download and install the software, or what the license terms are, please read our answers to frequently asked questions before you send an email.

News

- **R version 3.2.2 (Fire Safety) prerelease versions** will appear starting 2015-08-04. Final release is scheduled for 2015-08-14.
- **The R Journal Volume 7/1** is available.
- **R version 3.2.1 (World-Famous Astronaut)** has been released on 2015-06-18.
- **R version 3.1.3 (Smooth Sidewalk)** has been released on 2015-03-09.
- **useR! 2015**, will take place at the University of Aalborg, Denmark, June 30 - July 3, 2015.
- **useR! 2014**, took place at the University of California, Los Angeles, USA June 30 - July 3, 2014.

1. R installation

- Choose you preferred CRAN mirror according to your location

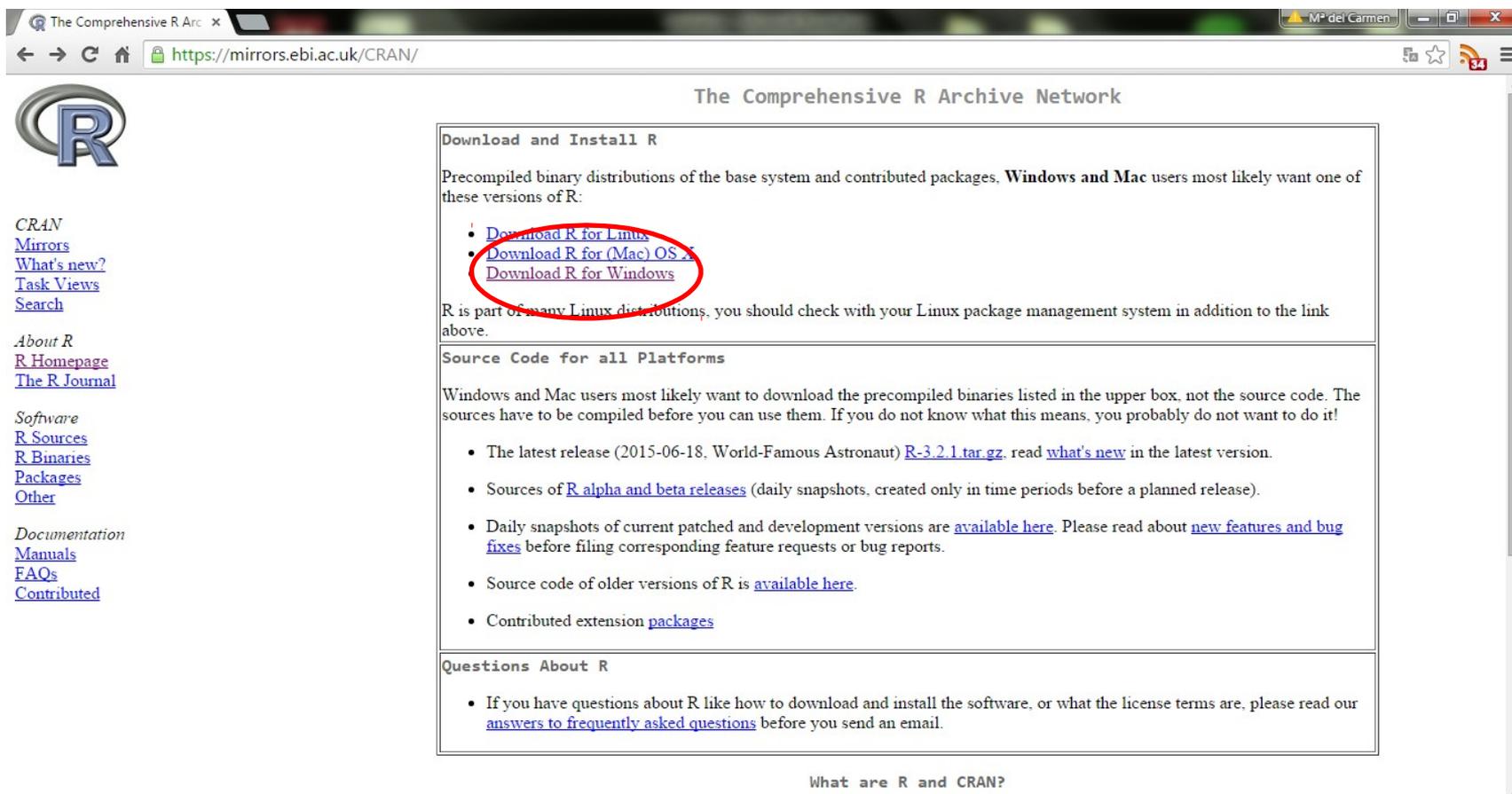


The screenshot shows a web browser window with the address bar displaying <https://cran.r-project.org/mirrors.html>. The page content is a list of mirrors organized by country, with each country name on the left and a list of mirror URLs and their corresponding institutions on the right.

	http://ftp.cixug.es/CRAN/ http://cran.es.r-project.org/	Oficina de software libre (CIXUG) Spanish National Research Network, Madrid
Sweden	http://ftp.acc.umu.se/mirror/CRAN/	Academic Computer Club, Umeå University
Switzerland	https://stat.ethz.ch/CRAN/ http://stat.ethz.ch/CRAN/	ETH Zürich ETH Zürich
Taiwan	http://ftp.vzu.edu.tw/CRAN/ http://cran.csie.ntu.edu.tw/	Department of Computer Science and Engineering, Yuan Ze University National Taiwan University, Taipei
Thailand	http://mirrors.psu.ac.th/pub/cran/	Prince of Songkla University, Hatyai
Turkey	http://cran.pau.edu.tr/	Pamukkale University, Denizli
UK	https://www.stats.bris.ac.uk/R/ http://www.stats.bris.ac.uk/R/ https://mirrors.ebi.ac.uk/CRAN/ http://mirrors.ebi.ac.uk/CRAN/ http://mirrors-uk2.go-parts.com/cran/ http://cran.ma.imperial.ac.uk/ http://mirror.mdx.ac.uk/R/ http://star-www.st-andrews.ac.uk/cran/	University of Bristol University of Bristol EMBL-EBI (European Bioinformatics Institute) EMBL-EBI (European Bioinformatics Institute) Go-Parts Imperial College London Middlesex University London St Andrews University
USA	https://cran.cnr.Berkeley.edu/ http://cran.cnr.Berkeley.edu/ http://cran.stat.ucla.edu/ http://cran.mirrorcatalogs.com/ http://mirror.las.iastate.edu/CRAN/ http://ftp.ussg.iu.edu/CRAN/ https://rweb.quant.ku.edu/cran/	University of California, Berkeley, CA University of California, Berkeley, CA University of California, Los Angeles, CA Qarea Inc. Iowa State University, Ames, IA Indiana University University of Kansas, Lawrence, KS

1. R installation

- Download R for Windows



The screenshot shows a web browser window with the address bar displaying <https://mirrors.ebi.ac.uk/CRAN/>. The page title is "The Comprehensive R Archive Network". The main content area is titled "Download and Install R" and contains the following text:

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 (2015-06-18, World-Famous Astronaut) [R-3.2.1.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](#)

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.

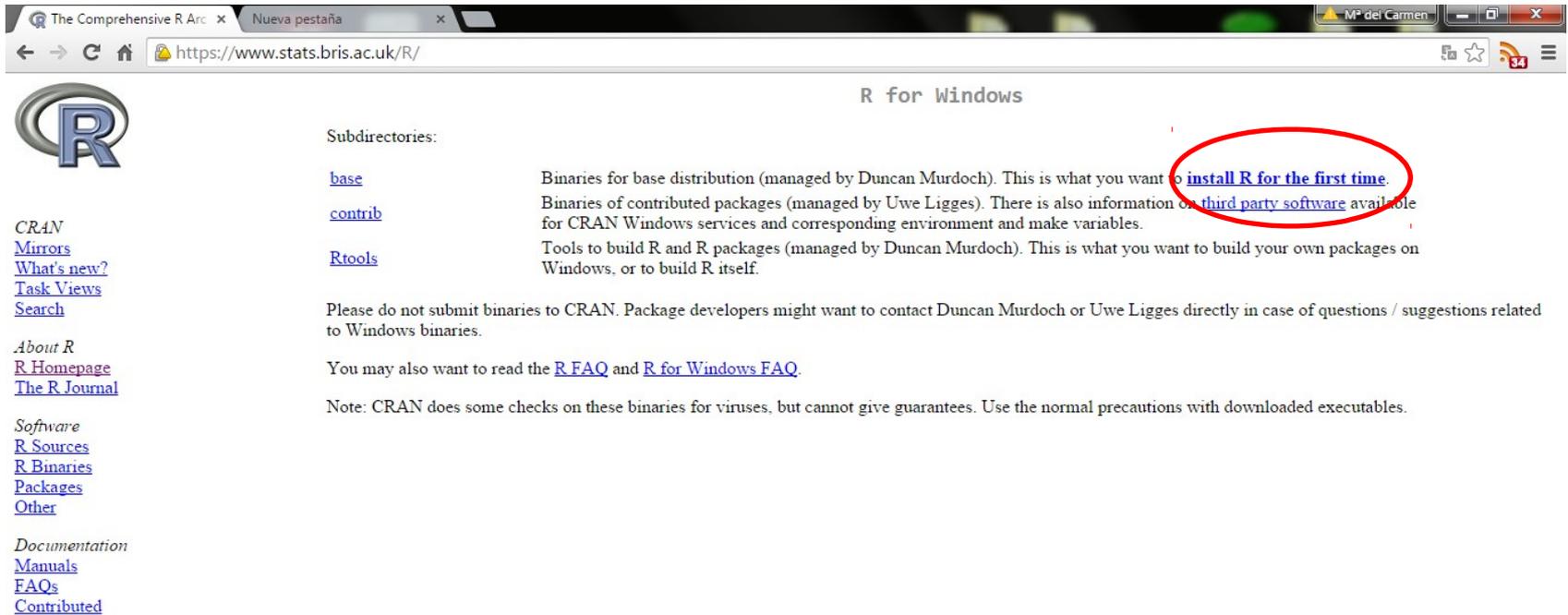
What are R and CRAN?

On the left side of the page, there is a navigation menu with the following links:

- CRAN
- [Mirrors](#)
- [What's new?](#)
- [Task Views](#)
- [Search](#)
- About R
- [R Homepage](#)
- [The R Journal](#)
- Software
- [R Sources](#)
- [R Binaries](#)
- [Packages](#)
- [Other](#)
- Documentation
- [Manuals](#)
- [FAQs](#)
- [Contributed](#)

1. R installation

- Click in **install R for the first time**



The screenshot shows a web browser window with the URL <https://www.stats.bris.ac.uk/R/>. The page title is "R for Windows". The R logo is visible in the top left. The main content area lists subdirectories: "base", "contrib", and "Rtools". The "base" subdirectory description includes the link "install R for the first time", which is circled in red. The "contrib" subdirectory description includes the link "third party software". Below the subdirectories, there is a note about submitting binaries to CRAN and a link to the "R FAQ" and "R for Windows FAQ". A final note states that CRAN does some checks for viruses but cannot give guarantees.

CRAN
[Mirrors](#)
[What's new?](#)
[Task Views](#)
[Search](#)

About R
[R Homepage](#)
[The R Journal](#)

Software
[R Sources](#)
[R Binaries](#)
[Packages](#)
[Other](#)

Documentation
[Manuals](#)
[FAQs](#)
[Contributed](#)

R for Windows

Subdirectories:

- [base](#) Binaries for base distribution (managed by Duncan Murdoch). This is what you want to [install R for the first time](#).
- [contrib](#) Binaries of contributed packages (managed by Uwe Ligges). There is also information on [third party software](#) available for CRAN Windows services and corresponding environment and make variables.
- [Rtools](#) Tools to build R and R packages (managed by Duncan Murdoch). This is what you want to build your own packages on Windows, or to build R itself.

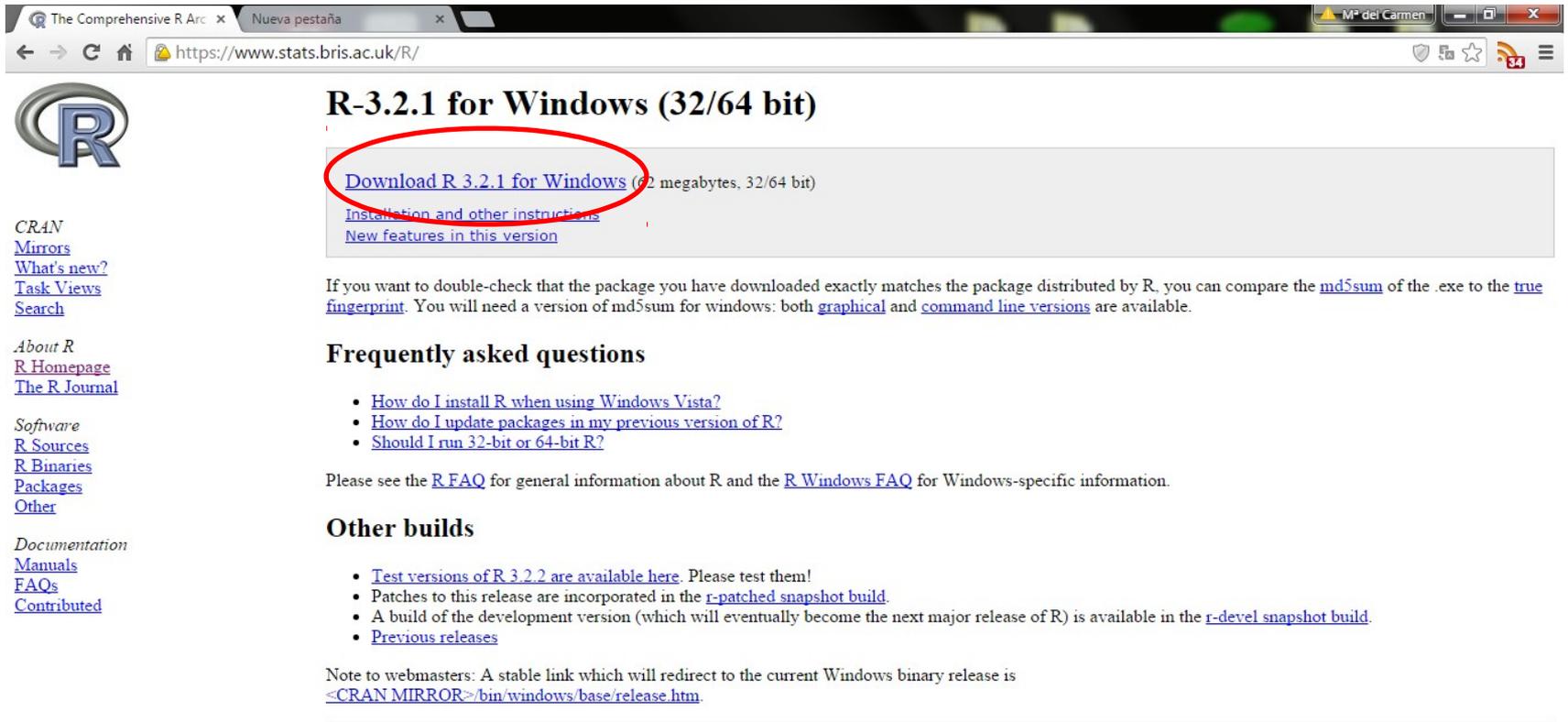
Please do not submit binaries to CRAN. Package developers might want to contact Duncan Murdoch or Uwe Ligges directly in case of questions / suggestions related to Windows binaries.

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.

1. R installation

- Download newest version for Windows



The screenshot shows a web browser window with the URL <https://www.stats.bris.ac.uk/R/>. The page title is "R-3.2.1 for Windows (32/64 bit)". The main content area features a link "Download R 3.2.1 for Windows (62 megabytes, 32/64 bit)" which is circled in red. Below this link are two sub-links: "Installation and other instructions" and "New features in this version". To the left of the main content is a sidebar with navigation links under the R logo, including "CRAN", "Mirrors", "What's new?", "Task Views", "Search", "About R", "R Homepage", "The R Journal", "Software", "R Sources", "R Binaries", "Packages", "Other", "Documentation", "Manuals", "FAQs", and "Contributed".

R-3.2.1 for Windows (32/64 bit)

[Download R 3.2.1 for Windows](#) (62 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 exactly matches the package distributed by R, you can compare the [md5sum](#) of the .exe to the [true fingerprint](#). You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

Frequently asked questions

- [How do I install R when using Windows Vista?](#)
- [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.

Other builds

- [Test versions of R 3.2.2 are available here](#). Please test them!
- 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.htm.

1. R installation

- Follow the instructions to install it.



The screenshot shows a web browser window displaying the R website. The main heading is "R-3.2.1 for Windows (32/64 bit)". Below this, there are links for "Download R 3.2.1 for Windows (62 megabytes, 32/64 bit)", "Installation and other information", and "New features in this release". A "Setup - R for Windows 3.2.1" window is overlaid on the page, showing a "Welcome to the R for Windows 3.2.1 Setup Wizard" dialog. The dialog text reads: "This will install R for Windows 3.2.1 on your computer. It is recommended that you close all other applications before continuing. Click Next to continue, or Cancel to exit Setup." The dialog has "Next >" and "Cancel" buttons. The background website also includes a sidebar with links for "CRAN", "About R", "Software", and "Documentation".

Please note that you will *either* need administrator privileges *or* have to choose your home directory as location for the installation.

1. R installation

- Use 32-bit version for 32-bit Windows but 64-bit version for 64-bit Windows



R-3.2.1 for Windows (32/64 bit)

[Download R 3.2.1 for Windows](#) (62 megabytes, 32/64 bit)

[Installation and other](#)
[New features in this](#)

CRAN

[Mirrors](#)
[What's new?](#)
[Task Views](#)
[Search](#)

[About R](#)
[R Homepage](#)
[The R Journal](#)

[Software](#)
[R Sources](#)
[R Binaries](#)
[Packages](#)
[Other](#)

[Documentation](#)
[Manuals](#)
[FAQs](#)
[Contributed](#)

If you want to double-check the installation, you can compare the [md5sum](#) of the .exe to the [true](#) [md5sums](#) are available.

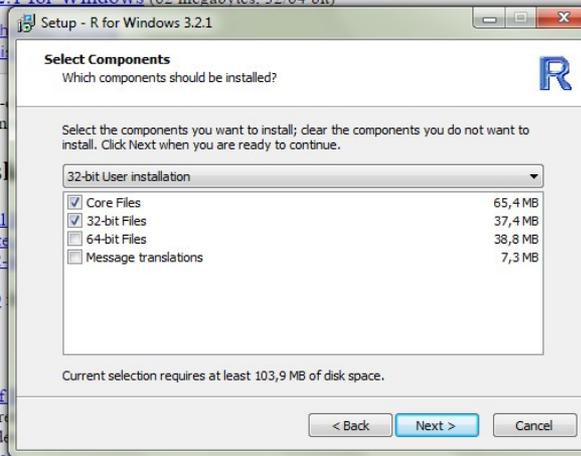
Frequently asked questions

- [How do I install R?](#)
- [How do I update R?](#)
- [Should I run 32-bit or 64-bit R?](#)

Please see the [R FAQ](#).

Other builds

- [Test versions of R](#)
- [Patches to this release](#)
- [A build of the development version of R](#)
- [Previous releases](#)

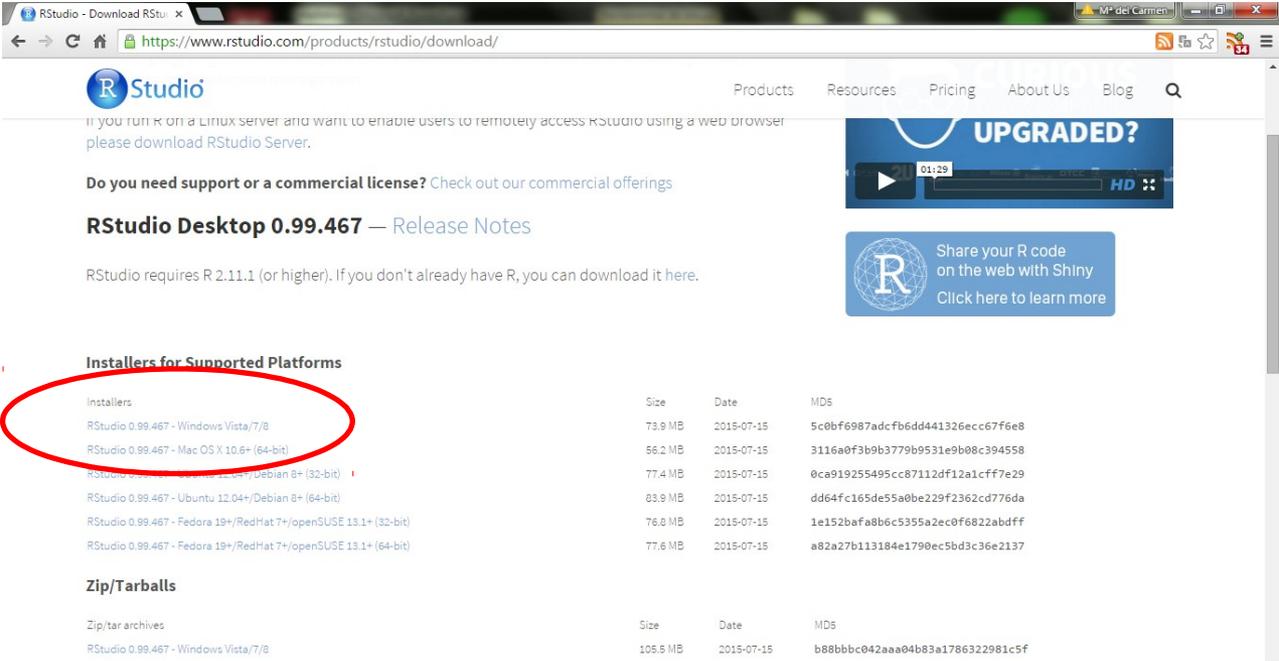


Note to webmasters: A stable link which will redirect to the current Windows binary release is CRAN.MIRROR>/bin/windows/base/release.htm.

2. RStudio installation

- Download the package from this link and follow the instructions:

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



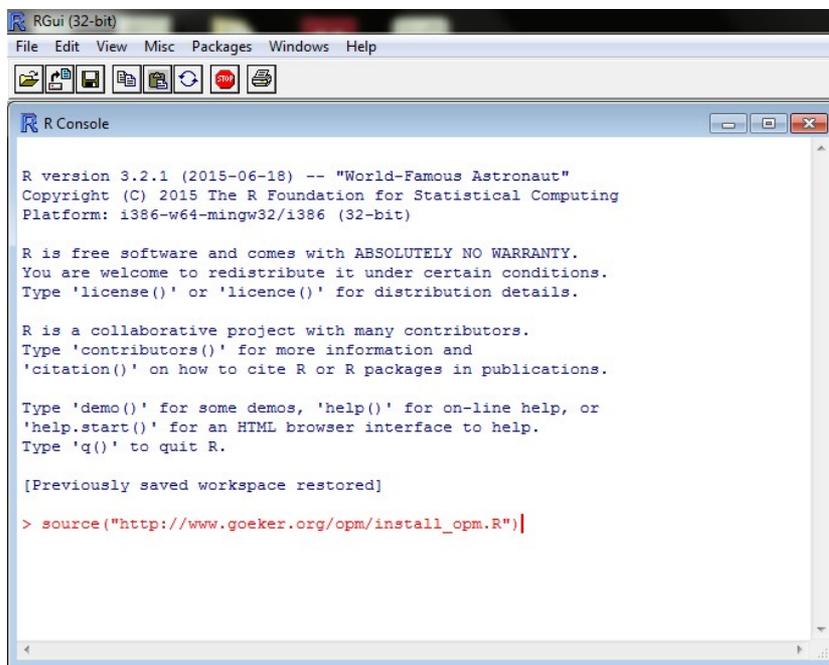
The screenshot shows the RStudio website's download page. The page includes a navigation bar with links for Products, Resources, Pricing, About Us, and Blog. Below the navigation bar, there is a section for Linux server users, a video player titled "UPGRADED?", and a button to share R code on the web with Shiny. The main content area features a section titled "Installers for Supported Platforms" which is circled in red. This section contains a table of installers for various operating systems, including Windows Vista/7/B, Mac OS X 10.6+ (64-bit), Ubuntu 12.04+/Debian 8+ (32-bit), Ubuntu 12.04+/Debian 8+ (64-bit), Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit), and Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit). Below the table, there is a section for "Zip/Tarballs" with a single entry for Windows Vista/7/B.

Installers	Size	Date	MD5
RStudio 0.99.467 - Windows Vista/7/B	73.9 MB	2015-07-15	5c0bf6987adcfb6dd441326ecc67f6e8
RStudio 0.99.467 - Mac OS X 10.6+ (64-bit)	56.2 MB	2015-07-15	3116a0f3b9b3779b9531e9b08c394558
RStudio 0.99.467 - Ubuntu 12.04+/Debian 8+ (32-bit)	77.4 MB	2015-07-15	0ca919255495cc87112df12a1cff7e29
RStudio 0.99.467 - Ubuntu 12.04+/Debian 8+ (64-bit)	83.9 MB	2015-07-15	dd64fc165de55a0be229f2362cd776da
RStudio 0.99.467 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	76.6 MB	2015-07-15	1e152baf8b6c5355a2ec0f6822abdf
RStudio 0.99.467 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	77.6 MB	2015-07-15	a82a27b113184e1790ec5bd3c36e2137

Zip/Tarballs	Size	Date	MD5
RStudio 0.99.467 - Windows Vista/7/B	105.5 MB	2015-07-15	b88bbbc042aaa04b83a1786322981c5f

3. opm installation

- Open R or RStudio and enter at the prompt:
source("http://www.goeker.org/opm/install_opm.R")
- Then press return.



The screenshot shows the R GUI (32-bit) window with the R Console open. The console displays the following text:

```
R version 3.2.1 (2015-06-18) -- "World-Famous Astronaut"
Copyright (C) 2015 The R Foundation for Statistical Computing
Platform: i386-w64-mingw32/i386 (32-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.

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.

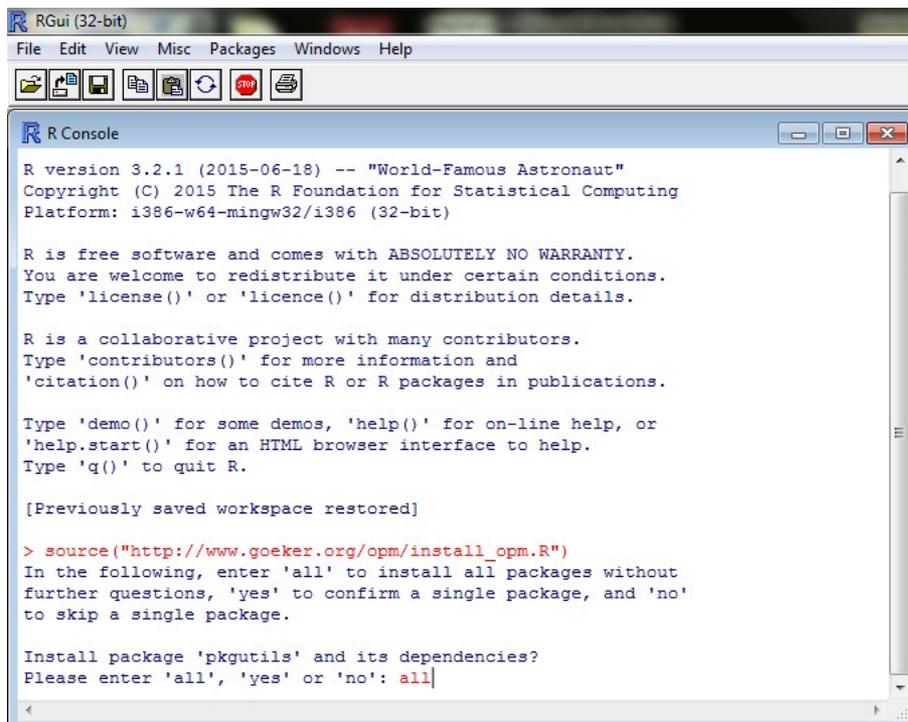
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[Previously saved workspace restored]

> source("http://www.goeker.org/opm/install_opm.R")
```

3. pkgutils/opm installation

- R will ask you if you want to install all the dependencies. Please enter **all**.



```
RGui (32-bit)
File Edit View Misc Packages Windows Help

R Console
R version 3.2.1 (2015-06-18) -- "World-Famous Astronaut"
Copyright (C) 2015 The R Foundation for Statistical Computing
Platform: i386-w64-mingw32/i386 (32-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.

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.

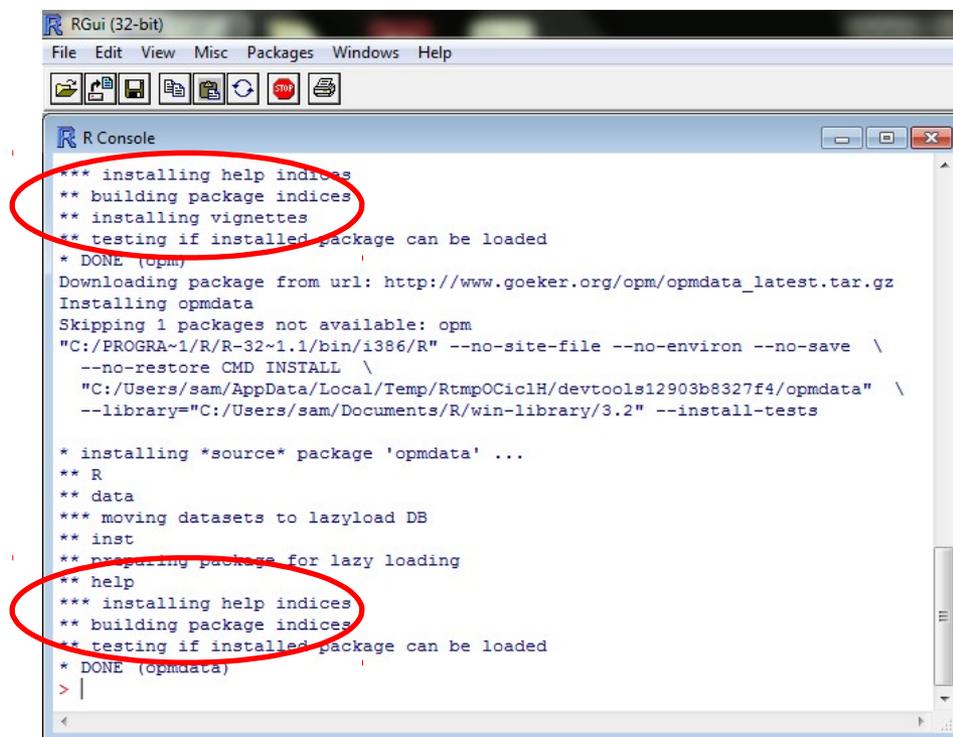
[Previously saved workspace restored]

> source("http://www.goeker.org/opm/install_opm.R")
In the following, enter 'all' to install all packages without
further questions, 'yes' to confirm a single package, and 'no'
to skip a single package.

Install package 'pkgutils' and its dependencies?
Please enter 'all', 'yes' or 'no': all|
```

3. pkgutils/opm installation

- The installation might take a while. Please be patient.



```
RGui (32-bit)
File Edit View Misc Packages Windows Help
R Console
*** installing help indices
** building package indices
** installing vignettes
** testing if installed package can be loaded
* DONE (opm)
Downloading package from url: http://www.goeker.org/opm/opmdata_latest.tar.gz
Installing opmdata
Skipping 1 packages not available: opm
"C:/PROGRA-1/R/R-32-1.1/bin/i386/R" --no-site-file --no-environ --no-save \
--no-restore CMD INSTALL \
"C:/Users/sam/AppData/Local/Temp/RtmpOCic1H/devtools12903b8327f4/opmdata" \
--library="C:/Users/sam/Documents/R/win-library/3.2" --install-tests

* installing *source* package 'opmdata' ...
** R
** data
*** moving datasets to lazyload DB
** inst
** preparing package for lazy loading
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded
* DONE (opmdata)
> |
```