Installing R and RCmdr in your system

This handout follows the instructions presented in the video: <u>Installing R and R Commander</u>. In order to follow the installation directions, you need to have access to the internet. Make sure you have access before getting started.

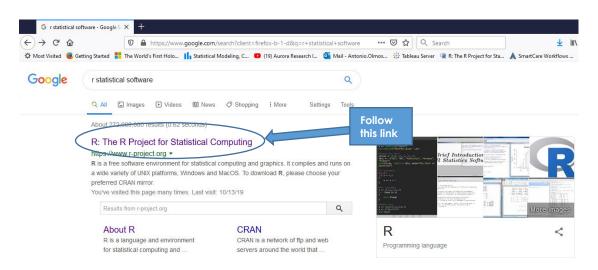
There are versions of R and R-commander for Windows 10, Mac and Linux systems. It is highly recommended that you run any updates in your system before you start the installation of R. This precaution will guarantee that your system has any upgrades it needs.

1. - Open your browser

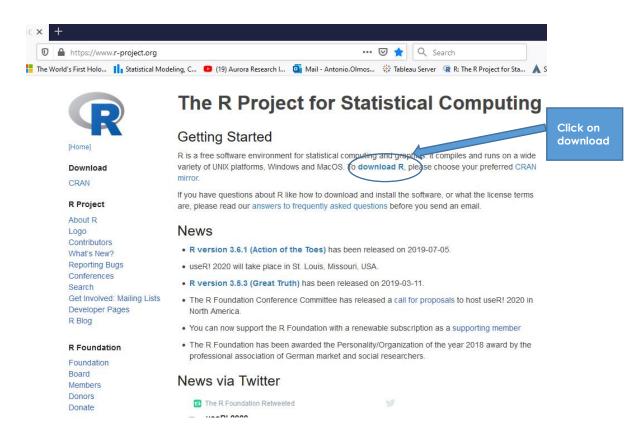
I use Mozilla firefox, but any internet browser will do.



The easiest way to find the site is to try: "r statistical software" in your search engine (I use Google)



Usually the site we are trying to find will be the first hit ("The R project for Statistical computing"). Once found, go to the R statistical project website



Notice that in this page, there is a link to download the program. Please click on that link. And a new page with more information will open. In this new page, click on one of the links (I tend to go with the top one, as you can see)

R CRAN - Mirrors × +		
(←) → C'	roject.org/mirrors.html	🗵 🗘 🔍 Search
🌣 Most Visited 🧕 Getting Started 🚦 The World's First Holo 👖	Statistical Modeling, C 💶 (19) Auro	ra Research I 🧧 Mail - Antonio.Olmos 🔅 Tableau Server 🛛 🥷 R: The R Project for Sta 🔺
		CRAN Mirrors
The Comprehensive R Archive Network is available at the fo	ollowing URLs, please choose a lo	ocation close to you. Some statistics on the status of the mirrors can be found here:
If you want to host a new mirror at your institution, please has	ave a look at the CRAN Mirror He	<u>OWTO</u> .
0-Cloud		
https://cloud.r-project.org/	I usually click	Automatic redirection to servers worldwide, currently sponsored by Rstudio
Algeria	on this link	
https://cran.ustnb.dz/ Argentina		University of Science and Technology Houari Boumediene
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
Belgium		
https://www.freestatistics.org/cran/		Patrick Wessa
https://lib.ugent.be/CRAN/		Ghent University Library
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As stated earlier, there are several options: Windows, Mac, and Linux. Download what is appropriate for your system.

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The World's First Holo	tistical Modeling, C 💶 (19) Aurora Research I 🧧 Mail - Antonio.Olmos 🔅 Tableau Server 🧟 R: The R Project for Sta 🔺 SmartCare Workflows M mail.google					
rted w.mozilla.org/en-US/firefox/central/	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 <u>R alpha and beta releases</u> (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. 					
	Source code of older versions of R is available here.					
	Contributed extension <u>packages</u>					
	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					

Chose "base" installation for the first time (I always select that option, even when I am doing an update to a newer version)

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ne World's Firs	st Holo 👖 Statistical Modeling, C	💶 (19) Aurora Research I 🧧 Mail - Antonio.Olmos 🍀 Tableau Server 📿 R: Ti	he R Project for Sta 🔺 SmartCare Workflows M mail.google
		R for Windows	5
	Subdirectories:		I always select this option (even for updates)
	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 U available for CRAN Windows services and corresponding environment ar	
	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	n 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.
	V	FAQ and R for Windows FAQ.	

Accept and download. If everything is well, you'll see the following window (or something very similar):

Opening R-3.6.1-win.exe		×
You have chosen to open:		
📧 R-3.6.1-win.exe		
which is: Binary File (80.8 MB)		
from: https://cloud.r-project.org		
Would you like to save this file?		
	Save File	Cancel
	-	

Save the file. You should find your file in your default download folder:

F Home Share View H S V Pin to Quick Copy Paste Poste shortcut Clipboard	Move Copy to * Uo Organize	New item • New folder New	Properties • Open • Edit • History Open	Select all Select none Invert selection Select		
\leftarrow \rightarrow \checkmark \uparrow \blacklozenge \rightarrow This PC \rightarrow OS (C:)	> Users > olmoan > Downloads	>				~
> 🖶 Downloads 🔷	Name			nodif	ïed Type	Size
	√ Toda <u>y (1)</u>		e downloaded	-		
> 📙 Evernote	R-3.6.1-win.exe	my	" "downloads"	folder 2019	2:32 PM Application	82,697 KB

Start installation by double-clicking on the file. You get this screen:

Select Se	etup Langua	ge	×
18	Select the la installation:	anguage to use during the	
	English		~
		~ ('annal

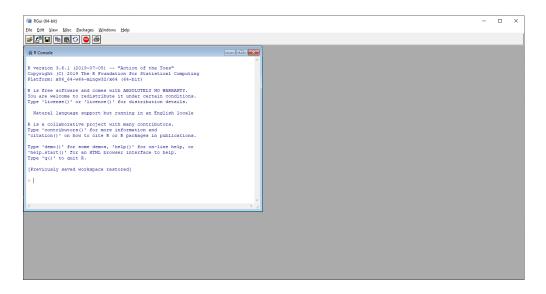
You can change the language used during the installation. Once the installation finishes, you will see this screen:



If you used all of the defaults, you should now have an icon like this in your desktop:



When you open the program by double-clicking on the icon, you get this screen:

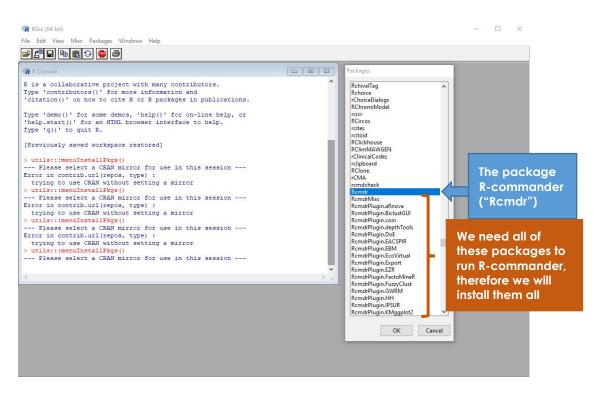


2. - R-commander (Rcmdr)

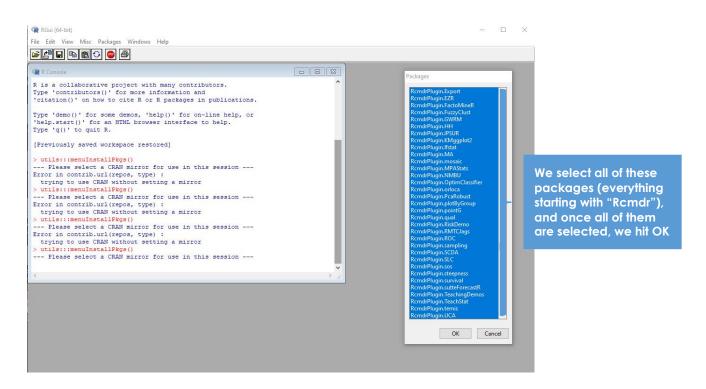
The first thing we are going to do to run R-commander is to install it. R-Commander is not part of the default installation. It needs to be installed. To install R-commander (or any other package), we click on packages, and install. We get the following screen

RGui (64-bit)				- 0	\times
File Edit View Misc Packages Vipelows H	elp				
R Console	Click on "packages =>		Secure CRAN mirrors		
Type 'license()' or 'licence()' fo		^	0-Cloud [https]		
Natural language support but run	to your right will open		Algeria [https] Australia (Canberra) [https]		
R is a collaborative project with			Australia (Melbourne 1) [https]		
Type 'contributors()' for more inf			Australia (Melbourne 2) [https] Australia (Perth) [https]		
'citation()' on how to cite R or R			Austria [https] Belgium (Ghent) [https]		
Type 'demo()' for some demos, 'hel			Brazil (BA) [https]		
'help.start()' for an HTML browser	interface to help.		Brazil (PR) [https]		
Type 'q()' to quit R.			Brazil (RJ) [https] Brazil (SP 1) [https]		
[Previously saved workspace restor	ed]		Brazil (SP 2) [https] Bulgaria [https]		
> utils:::menuInstallPkgs()			Chile (Santiago) [https]		
Please select a CRAN mirror fo			China (Hong Kong) [https]		
Error in contrib.url(repos, type)			China (Guangzhou) [https] China (Lanzhou) [https]		
<pre>trying to use CRAN without setti > utils:::menuInstallPkgs()</pre>	ng a mirror		China (Shanghai) [https]		
Please select a CRAN mirror fo			Colombia (Cali) [https]		
Error in contrib.url(repos, type)			Czech Republic [https]		
trying to use CRAN without setti			Denmark [https]		
<pre>> utils:::menuInstallPkgs()</pre>	ig a millor		Ecuador (Cuenca) [https]		
Please select a CRAN mirror fo	r use in this session		Ecuador (Quito) [https]		
and a second build and a second second second			Estonia [https] France (Lyon 1) [https]		
		v	France (Lyon 2) [https]		
S. C.		×	France (Marseille) [https]		
			France (Montpellier) [https]		
			Germany (Erlangen) [https]		
			Germany (Göttingen) [https]		
			Germany (Münster) [https]		
			Germany (Regensburg) [https] 💙		
			OK Cancel		

After we select a site for downloading packages (I usually go with the top one), we get a new screen with a list of all the packages we can install. Scroll down until you find "Rcmdr":



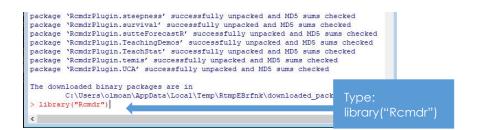
As you can see from the screenshot above, there are multiple packages that start with "Rcmdr". All of those packages are needed to run R-Commander, therefore we need to install them all. We select all of the packages that start with "Rcmdr", going all the way to "Rcmdr.Plugin.UCA" and hit Ok



The packages will start loading. Dependent on the speed of your computer, this may take

ile Edit View Misc Packages Windows Help ☞ Ama Ray C		
R Console		
package 'RomdrPlugin.FactoMineR' successfully unpacked and MD5 sums checked		
package 'RemdrPlugin.FuzzvClust' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.GWRM' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.HH' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.IPSUR' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.KMggplot2' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.lfstat' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.MA' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.mosaic' successfully unpacked and MD5 sums checked		
package 'RomdrFlugin.MPAStats' successfully unpacked and MD5 sums checked		
package `RcmdrPlugin.NMBU' successfully unpacked and MD5 sums checked package `RcmdrPlugin.OptimClassifier' successfully unpacked and MD5 sums checked		
package "RemdrPlugin.optimilassiller" successfully unpacked and MDS sums checked		
ackage "RemdrPlugin.oroca" successfully unpacked and HD5 sums checked		
Ackage KendrFlugin.plotByGroup' successfully unpacked and MOS sums checked		
ackage 'RomdrPlugin.point6' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.gual' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.RiskDemo' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.RMTCJags' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.ROC' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.sampling' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.SCDA' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.SLC' successfully unpacked and MD5 sums checked		
package 'RomdrPlugin.sos' successfully unpacked and MD5 sums checked		
package 'RomdrFlugin.steepness' successfully unpacked and MD5 sums checked package 'RomdrFlugin.survival' successfully unpacked and MD5 sums checked		
package 'KomdrFlugin.sutrival' successfully unpacked and mbs sums checked		
ackage 'RemdrPlugin.successforecastk' successfully unpacked and MDS sums checked		
Ackage KomdrFlughniteachingsembs successfully unpacked and MDS sums checked		
Ackage 'RendrPlugin.temis' successfully unpacked and MD5 sums checked		
package 'RcmdrPlugin.UCA' successfully unpacked and MD5 sums checked		
The downloaded binary packages are in		
C:\Users\olmoan\AppData\Local\Temp\RtmpEBrfnk\downloaded packages		

After all the packages are installed, type "library("Rcmdr") in the main console:



If after you enter this command, you get some warning about needing to install further packages, just hit enter, and let the computer install whatever is missing. After it finishes you will get a screen that will look like this:

R Commander File Edit Data Statistics Graphs Models Distributions Tools Help	<u>115</u>		×
R Data set: Image: No active dataset > Image: Z < No active dataset > Model: Σ < No active dataset >	ive mo	del>	
R Script R Markdown			~
<			>
Output	🤹 s	Submit	_
			~
Messages			_
[2] WARNING: The Windows version of the R Commander works best under RGui with the single-document interface (SDI); see ?Commander.			

Notice that at the bottom, there is a warning:

Output	
	Most likely, you will get
Messages	this warning, if running R-commander from a
[2] WARNING: The Windows version of the R Commander works best under RGui with the single-document interface (SDI); see ?Commander.	windows system
4	

To remove this warning, you need to change the properties of the icon, so it runs in a different environment. The icon will have as "target" ""C:\Program Files\R\R-

3.6.1\bin\x64\Rgui.exe" --cd-to-userdocs"

Security	Details	Previous Versions	
General	Shortcut	Compatibility	
R R	x64 3.6.1		
Target type: Target location:			Notice that after the
Target: Start in:	es\R\R-3.6.1\bin\x64\ "C:\Program Files\R\R	Rgui.exe" -cdto-userdocs	double quotes it reads: cd-to-userdocs
_ Shortcut <u>k</u> ey:	None		
<u>R</u> un: C <u>o</u> mment:	Nomal window	~	
Open <u>Fi</u> le L	ocation <u>Change</u> Ic	on A <u>d</u> vanced	

The best solution, is to create a new icon, and change the target. I named this new icon: "Rcmdr"

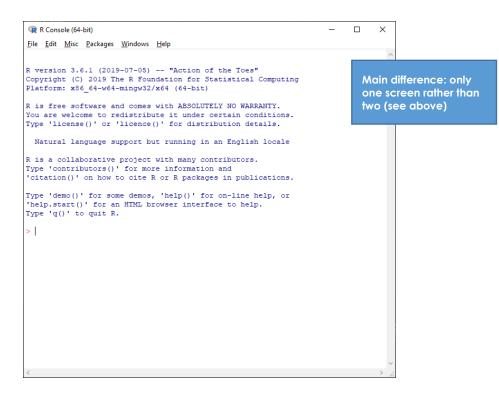


And I changed the Target in the properties to the following

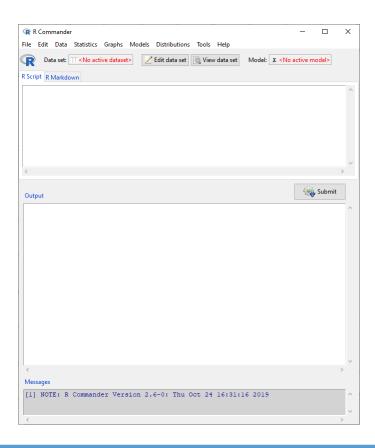
"C:\Program Files\R\R-3.6.1\bin\x64\Rgui.exe" –sdi Please note that there are two dashes "-"-" before "sdi". See below:

RCmdr Prop		×	
Security	Details	Previous Versions	
General	Shortcut	Compatibility	
R R	Cmdr		
Target type:	Application		
Target location:	x64		Notice that after the double
Target:	Program Files\R\R-3.6	1\bin\x64\Rgui.exe" -sdi	quotes now it reads:
			sdi (two dashes)
<u>S</u> tart in:	"C:\Program Files\R\R	-3.6.1"	l
Shortcut <u>k</u> ey:	None Normal window		
<u>R</u> un:			
C <u>o</u> mment:			
Open File L	cation Change loo	n Advanced	
	ОК	Cancel Apply	

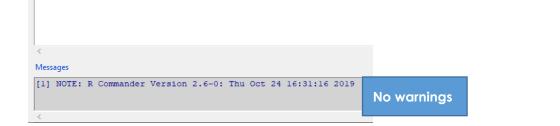
When you click on this new icon, the program opens and looks like this:



Once you type "library("Rcmdr") in this new version of the program you get the following screen:



Notice that at the bottom of the program, there are no longer warnings:



3. - Your computer is ready to run R-commander. Explore!

You can now start using R-commander. Explore the menus at the top. You'll notice that it is menu-based (i.e., like SPSS windows), rather than command-based (i.e., like the old SPSS with syntax)

