

# HOW TO INSTALL R AND THE ‘R COMMANDER’

The ‘R Commander’ is a basic-statistics graphical user interface (GUI) for R, a *free* interactive programming language and environment. Therefore, in order to be able to use the R Commander, you must install *both* R and the R Commander on your computer. Luckily, a version of R exists for Windows, MacOS, and Linux/UNIX computers. The following instructions first walk you through how to install the *Windows* (2000 or later) version of R – the latest release (2009-06-26) is version 2.9.1:

1. Go to <http://cran.r-project.org/mirrors.html>.
  - The R installation files are distributed by the *Comprehensive R Archive Network* (CRAN). CRAN is a collection of sites which carry identical materials and were created as mirror sites to lessen the load on any one server.
2. Click on one of the *USA* links, such as <http://lib.stat.cmu.edu/R/CRAN/>, which brings you to Carnegie Mellon University’s Statlib mirror site.
3. In the ‘Download and Install R’ box, click on the ‘Windows’ link.
4. Click on the ‘base’ link.
5. Right-click on the ‘Download R.2.9.1 for Windows’ link and choose ‘Save Link As...’.
6. Save the .exe file to your Desktop (the R-2.9.1-win32.exe file is approximately 36Mb).
7. Double-click on the .exe icon and follow the instructions.
  - When asked to ‘Select the components you want to install’, choose the (default) ‘User’ installation.
  - Don’t worry about ‘customizing the startup options’.
  - In general, you should install R perfectly by just clicking on the ‘Okay’, ‘Next’, or ‘Finish’ buttons at each step and letting the R set-up use the default choices.

If you’re on a Mac, follow a similar process using the ‘MacOS X’ link and the R-2.9.1.dmg file. In general, both the complete instructions and the necessary accompanying files needed to install *any version* R are distributed by the *Comprehensive R Archive Network* (CRAN) on their website <http://www.cran.r-project.org>. See any of the following *Documentation* for detailed instructions: the ‘R Installation and Administration’ document under the *Manuals* link; the *FAQ* link (both general and Windows and Mac specific); and/or the ‘Installing R under Windows’ article in the June 2001 edition (Vol. 1/2; pages 11-14) *Newsletter*.

Now, to install the R Commander – the latest release (2009-04-26) is version 1.4-10. You install the R Commander on your computer by installing the *Rcmdr package* within R. Packages are the way R organizes its functionality – a group of packages are automatically installed when you install R. The *Rcmdr* package is not one of these, but it is one of the over 500 ‘contributed’ packages you can install on your own. **IMPORTANT:** The following instructions assume *you are connected to the Internet* – being so allows you to download and install a package *directly* from CRAN. Please contact me at [theresa.scott@vanderbilt.edu](mailto:theresa.scott@vanderbilt.edu) if it is not possible for you to connect your computer to the Internet. With that said, back to the instructions...

1. Start R.
  - If you’re using the Windows or Mac versions of R, double-click the R icon on the desktop, or find the R program under the **start** menu. This will start R in a new *console window* with a *command line subwindow*.

- If you're using the Linux/Unix version of R, launch R by typing 'R' at the shell command prompt (i.e., '\$ R' if we assume that the shell prompt is '\$') of a terminal window. This will cause R to start up as an interactive program in the current terminal window.
  - **IMPORTANT:** You must have administrative rights to your laptop/computer in order to successfully install a package. If you're running Windows Vista, you can run R with *Administrator privileges* in sessions where you want to install packages by right-clicking on the R shortcut and selecting 'Run as Administrator'.
2. At the *command line prompt*, which is denoted by the greater than symbol, >, type the following command and then press the ENTER key. **NOTE:** R is *case-sensitive*.

```
install.packages("Rcmdr", dependencies = TRUE)
```

It is important to know that the Rcmdr package uses a number of other 'contributed' packages (in addition to a number of packages that are part of the standard R installation), and these need to be present for it to work properly – that is, these additional 'contributed' packages (including, abind, aplpack, car, effects, lmtest, multcomp, mvtnorm, relimp, sandwich, strucchange, and zoo) must also be installed. Luckily the `dependencies = TRUE` portion of the code above installs the Rcmdr package *and all of its dependencies* automatically.

**NOTE:** John Fox, the creator of the R Commander, mentions that there are a few 'installation issues', particularly on Mac systems. Luckily, there are installation notes for specific platforms available at <http://socserv.mcmaster.ca/jfox/Misc/Rcmdr/installation-notes.html>.

If the installation of the Rcmdr package is successful, you should be returned to a new command line prompt (ie, >) in your R console window. Lastly, if you want to check to make sure the Rcmdr package (and thus the R Commander itself) was installed correctly, you can *load* the Rcmdr package, which will start the R Commander, by typing the following command at the command line prompt and pressing the ENTER key:

```
library(Rcmdr)
```

A detailed introduction, description, and demonstration of the basic uses of the R Commander will be presented in the accompanying lecture notes.