

R FOR BUSINESS ADMINISTRATION

R for Business Administration

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R software and documentation is held and administered by the R Foundation, a not for profit organization working in the public interest. Learn more online: https://www.r-project.org/foundation/

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Introduction Purpose of this Work

Purpose of This Work

This work strives to be a practical guide to using R for business administration. While this work contains information about using statistics in business, it is no substitute for learning statistics.

Compute responsibly.

Installation Getting Started

1.1 Software Installation

Your Computing Environment

R is a Free Software¹ project. Similarly, this work recommends you use GNU/Linux for your computing environment. Not sure where to start? Learn more about some of the leading GNU/Linux distributions:

• Debian: http://www.debian.org/

• Fedora: https://getfedora.org/

• Ubuntu: http://www.ubuntu.com/

Software Overview

R is a software environment that is capable of performing statistical analysis. For those interested in performing custom analyses, it is a powerful tool. The problem is that alone, R has a fairly high learning threshold: it requires learning a programming language and provides relatively little visual feedback.

Thankfully, there is a freely licensed tool called R-Commander² which helps solve both of these problems by creating a graphical interface for R. Combined, they make a compelling solution for those who only need basic analysis, while also allowing greater customization and depth for those who need more sophisticated analysis.

While installation is fairly simple, it does require some attention to detail to make sure that everything installs properly.

Installing R

- 1. Go to https://cran.r-project.org/mirrors.html.
- 2. Select a location closest to you.
- 3. Click on your operating system and follow the appropriate directions.

¹Free software is software that gives you the user the freedom to share, study and modify it. We call this free software because the user is free. Learn more at http://www.fsf.org/about/what-is-free-software.

²Learn more about R-Commander online: http://socserv.mcmaster.ca/jfox/Misc/Rcmdr/.

1.1. SOFTWARE INSTALLATION

R is part of many GNU/Linux distributions, you should check with your GNU/Linux package management system in addition to the link above.

Installing R Commander

- 1. Once you have installed R, open it by double-clicking on the icon or opening through a terminal emulator.
- 2. A window called "R Console" will open.
- 3. At the prompt (the > symbol), type the following command exactly and then press enter:
 - install.packages("Rcmdr", dependencies = TRUE)
- 4. R should respond by asking you to select a mirror site, and listing them in a pop-up box.
- 5. Choose a nearby location.
- 6. Depending on your connection speed, the installation may take a while. Be patient and wait until you see the prompt again before you do anything.

Starting R Commander

If R is not already open, open it by clicking on its icon or through a terminal emulator. To open R Commander, at the prompt enter the following command:

library(Rcmdr)

You should see a large new window pop up, labeled R Commander.³ You are now ready to analyze your data with R Commander. If you close this window while R is still open, you can start R Commander again by entering the command Commander() in R Console. Entering library(Rcmdr) in this situation will not work unless you close R and open it again.

Congratulations! Now let's get to work.

³Find detailed installation instructions online: http://socserv.mcmaster.ca/jfox/Misc/Rcmdr/installation-notes.html

Contact Getting in Touch

2.1 GitHub

This work The currently hosted GitHub. on code is available at the following location: source https://github.com/kenhara/r-for-business-administration/

2.2 Related Communities

This work is only possible thanks to the Free Software community, especially:

- The R Project for Statistical Computing https://www.r-project.org/
- Rcmdr http://rcommander.com/
- LATEX Memoir http://www.latex-project.org/
- Free Software Foundation http://www.fsf.org/
- Aleph Objects, Inc. https://alephobjects.com/

Colophon

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Lagrange Memoir