Getting Started With the R Commander: A Basic-Statistics Graphical User Interface to R

John Fox*
McMaster University
Hamilton, Ontario, Canada

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Abstract

Unlike S-PLUS, R does not include a statistical graphical user interface (GUI), but it does include tools for building GUIs. Based on the `tcltk` package (which furnishes an interface to the Tcl/Tk GUI builder) the `Rcmdr` package provides a basic-statistics graphical user interface to R called the "R Commander."

The design objectives of the R Commander were as follows: to support, through an easy-to-use, extensible, cross-platform GUI, the statistical functionality required for a basic-statistics course (though its current functionality has grown to include support for linear and generalized-linear models); to make it relatively difficult to do unreasonable things; to render visible the relationship between choices made in the GUI and the R commands that they generate.

The R Commander uses a simple and familiar menu/dialog-box interface. Top-level menus include *File*, *Edit*, *Data*, *Statistics*, *Graphs*, *Models*, *Distributions*, and *Help*, with the complete menu tree given in the paper. Each dialog box includes a *Help* button, which leads to a relevant help page.

Menu and dialog-box selections generate R commands, which are recorded in a simple log/script window and are echoed, along with output, to the R session window. The log/script window also provides the ability to edit and re-execute commands.

Data sets in the R Commander are simply R data frames, and may be read from attached packages or imported from files. Although several data frames may reside in memory, only one is "active" at any given time.

The purpose of this paper is to introduce and describe the basic use of the R Commander GUI and the manner in which it can be extended.

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