Version 2 of the R Commander

John Fox^{1*}, Milan Bouchet-Valat²

McMaster University, Hamilton, Ontario, Canada
OSC-CNRS & Sciences Po, Paris, France
*Contact author: jfox@mcmaster.ca

Keywords: R, graphical user interface (GUI), Tcl/Tk, reproducible research

The R Commander provides a graphical user interface (GUI) for R based on standard menus, buttons, and dialog boxes. Implemented in the **Remdr** package [4], the R Commander uses Tcl/Tk widgets via the **tcltk** package [6], which is included in the standard R distribution. As a consequence, the R Commander is simple to install and use on all of the computing platforms on which R commonly runs — Windows, Mac OS X, and Linux/Unix. The R Commander also uses the message-translation facilities in R [7], and it has been translated into a number of different languages.

Since its introduction about 10 years ago [2], the R Commander has evolved substantially. An early innovation was the capacity to accommodate plug-in packages [3], which extend the capabilities of the R Commander, and more than 30 of these are currently available on CRAN. Recently, we introduced version 2 of the R Commander, which incorporates a variety of interface improvements, including tabbed dialogs; a more consistent appearance employing themed Tcl/Tk widgets (thanks to the tcltk2 package, 5); Apply buttons that reopen dialogs in their current state after executing R commands; and the automatic generation of reports using editable R Markdown and LaTeX documents, via the markdown [1] and knitr [8] packages. These documents compile respectively to HTML and PDF files at the press of a button in the R Commander interface.

The overall goal of the R Commander remains largely unchanged, however: To provide a simple, intuitive, extensible GUI to R, primarily for basic and occasional use of R, such as in introductory and intermediate-level statistics courses, as an open-source alternative to GUI-based commercial software such as SPSS.

References

- [1] Allaire, J., J. Horner, V. Marti, and N. Porte (2014). *markdown: Markdown rendering for R*. R package version 0.6.4.
- [2] Fox, J. (2005). The R Commander: A basic statistics graphical user interface to R. *Journal of Statistical Software 14*(9), 1–42.
- [3] Fox, J. (2007). Extending the R Commander by "plug-in" packages. R News 7(3), 46–52.
- [4] Fox, J. and M. Bouchet-Valat (2013). Remdr: R Commander. R package version 2.0-3.
- [5] Grosjean, P. (2013). SciViews-R: A GUI API for R. MONS, Belgium: UMONS.
- [6] R Core Team (2013). *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing.
- [7] Ripley, B. D. (2005). Internationalization features of R 2.1.0. R News 5(1), 2–7.
- [8] Xie, Y. (2013). Dynamic Documents with R and knitr. New York: Chapman and Hall/CRC.