TCL Expect: Yet another way to do the wrong thing develop GUI for R

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Point-and-click interfaces, as opposed to a sensible command language, will always have their supporters and critics. We present an approach to developing a point-and-click interface based on the TCL/TK extension, Expect.

Compared to the internal support of TCL/TK through packages like tcltk, rpanel, tkrplot, and others, the Expect approach is slower and less appropriate for animated displays. On the positive side, applications are very easy to develop, the very existence of R is hidden from the user, and the interactive nature of R is exploited fully.

As an example, we present a toy application (a t-test or a regression), and a larger application for the analysis of treatment effects in experimental and quasi-experimental research.

References

Bowman, A.W., Crawford, E., Alexander, G. & Bowman, R.W. (2006). rpanel: simple interactive controls for R functions using the tcltk package. *Journal of Statistical Software 17*, issue 9

Libes, Don (1995). *Exploring Expect: A Tcl-based Toolkit for Automating Interactive Programs*. O'Reilly.

Steyer, Rolf et al. (2008). *Causal Effects in Experiments and Quasi-Experiments* (in print)