Graphical user interfaces for statistical applications in Quail.

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Quail extends the Common Lisp language to provide a programming environment for quantitative analysis. Among these extensions are capabilities for a general graphical user interface and for the specification and fitting of generalized linear models (including such specializations as the Gaussian linear model).

In this presentation the use of Quail to build graphical user interfaces for statistical analysis applications will be described. By demonstrating the construction of display-oriented tools for regression analysis, many of the design decisions for both graphics and statistical modelling will be illustrated. The general principles on which these facilities are based are then described.

Should time permit, a general overview of the entire Quail environment and design philosophy will be given.

This project represents joint work with C.B. Hurley, D.G. Anglin, M.E. Lewis, N.G. Bennett, and others that have been associated with the Quail project over many years now.