

RGtk2 - A graphical toolkit for R

Michael Lawrence

Abstract

RGtk2 combines the graphical user interface toolkit GTK+ 2.0 with R. It builds on the original RGtk (written by Duncan Temple Lang) by upgrading support from GTK+ 1.2 to 2.0. GTK+ 2.0 represents an evolutionary leap over its predecessor; the underlying object framework was reworked and many widgets were added or replaced. Thus, RGtk2 required substantial changes to RGtk, including the addition of automatic memory management and the ability to define certain C structures with R vectors. The automatic code generation was improved to handle more cases, such as arrays and returning values by reference. The full range of the GTK+ 2.0 API is available to the R programmer for developing sophisticated and graphically intensive user interfaces, while simpler tasks will be facilitated by the RGtk implementation of Simon Urbanek's iWidgets API. The integration of RGtk with Rggobi enables the embedding of GGobi components within custom user interfaces constructed from R.