# Changes on CRAN

*by Kurt Hornik*

## CRAN packages

**DBI** A common database interface (DBI) class and method definitions. All classes in this package are virtual and need to be extended by the various DBMS implementatios. By the R Special Interest Group on Databases (R-SIG-DB).

**Rmpi** Rmpi provides an interface (wrapper) to MPI APIs. It also provides interactive R slave functionalities to make MPI programming easier in R than in C(++) or FORTRAN. By Hao Yu.

**VLMC** Functions, classes & methods for estimation, prediction, and simulation (bootstrap) of VLMC – Variable Length Markov Chain – Models. By Martin Maechler.

**brlr** Fits logistic regression models by maximum penalized likelihood. By David Firth.

**cobs** Qualitatively Constrained (Regression) Smoothing via Linear Programming. By Pin T. Ng and Xuming He, U. Illinois; R port by Martin Maechler.

**dblcens** Use EM algorithm to compute the NPMLE of CDF and also the two censoring distributions. Data can be doubly censored. You can also specify a constraint, it will return the constrained NPMLE and the $-2$ log likelihood ratio. This can be used to test the hypothesis and find confidence interval for F(K) via empirical likelihood ratio theorem. Influence function may be calculated (but slow). By Mai Zhou, Li Lee, Kun Chen.

**dichromat** Collapse red-green distinctions to simulate the effects of colour-blindness. By Thomas Lumley.

**gllm** Routines for log-linear models of incomplete contingency tables, including some latent class models via EM and Fisher scoring approaches. By David Duffy.

**gtkDevice** GTK graphics device driver that may be used independently of the R-GNOME interface and can be used to create R devices as embedded components in a GUI using a Gtk drawing area widget, e.g., using RGtk. By Lyndon Drake; packaging and extensions by Martyn Plummer and Duncan Temple Lang.

**knnTree** Construct or predict with $k$-nearest-neighbor classifiers, using cross-validation to select $k$, choose variables (by forward or backwards selection), and choose scaling (from among no scaling, scaling each column by its SD, or scaling each column by its MAD). The finished classifier will consist of a classification tree with one such $k$-nn classifier in each leaf. By Sam Buttrey.

**ipred** Improved predictive models by direct and indirect bootstrap aggregation in classification and regression as well as resampling based estimators of prediction error. By Andrea Peters and Torsten Hothorn.

**npmc** Provides simultaneous rank test procedures for the one-way layout without presuming a certain distribution. By Joerg Helms, Ullrich Munzel.

**randomForest** Classification based on a forest of classification trees using random inputs. FORTRAN original by Leo Breiman and Adele Cutler, R port by Andy Liaw and Matthew Wiener.

**rsprng** Provides interface to SPRNG APIs, and examples and documentation for its use. By Na (Michael) Li.

**serialize** Simple interfce for serializing to connections. By Luke Tierney.

**spdep** A collection of functions to create spatial weights matrix objects from polygon contiguities, from point patterns by distance and tesselations, for summarising these objects, and for permitting their use in spatial data analysis; a collection of tests for spatial autocorrelation, including global Moran's I and Geary's C, local Moran's I, saddlepoint approximations for global and local Moran's I; and functions for estimating spatial simultaneous autoregressive (SAR) models. Was formerly the three packages: spweights, sptests, and spsarlm. By Roger Bivand, with contributions by Nicholas Lewin-Koh and Michael Tiefelsdorf.

**subselect** A collection of functions which assess the quality of variable subsets as surrogates for a full data set, and search for subsets which are optimal under various criteria. By Jorge Orestes Cerdeira, Jorge Cadima and Manuel Minhoto.

**systemfit** This package contains functions for fitting simultaneous systems of equations using Ordinary Least Sqaures (OLS), Two-Stage Least Squares (2SLS), and Three-Stage Least Squares (3SLS). By Jeff D. Hamann.

**tkrplot** simple mechanism for placing R graphics in a Tk widget. By Luke Tierney.

CRAN mirrors the R packages from the Omegahat project in directory 'src/contrib/Omegahat'. The following is a recent addition:

**RGtkViewers** GUI tools for viewing databases, S4 class hierarchies, etc. By Duncan Temple Lang.

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# Upcoming Events

*by Kurt Hornik and Friedrich Leisch*

## JSM 2002

The Joint Statistical Meetings taking place in New York on August 11–15, 2002 will feature a number of R-related activities. Paul Murrell will chair a session on *"R Graphics"* with talks on R graphics desiderata (Vincent Carey), scatterplot3d (Uwe Ligges), an R interface to OpenGL (Duncan Murdoch), embedding R graphics in Excel (Erich Neuwirth) and GGobi & R (Deborah Swayne). In addition, Paul will give a talk on using color in graphs.

Brian Yandell has organized a session entitled *"The Future of Electronic Publication: Show Me ALL the Data"*. It consists of talks on extensible formats for data analysis & documentation (Friedrich Leisch), analysis of microarray data (Robert Gentleman), strategies for software quality assurance (Kurt Hornik) and dynamic statistical documents (Duncan Temple Lang).

## DSC 2003

The third international workshop on 'Distributed Statistical Computing' (DSC 2003) will take place at the Technische Universität Wien in Vienna, Austria from 2003-03-19 to 2003-03-21. This workshop will deal with future directions in statistical computing and graphics.

Particular emphasis will be given to R and open-source projects related R, including Omegahat (`http://www.omegahat.org/`) and BioConductor (`http://www.bioconductor.org/`). DSC 2003 builds on the spirit and success of DSC 1999 and DSC 2001, which were seminal to the further development of R and Omegahat.

This should be an exciting meeting for everyone interested in statistical computing with R.

The conference home page at `http://www.ci.tuwien.ac.at/Conferences/DSC-2003/` gives more information.

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