

Changes in R 1.8.1

by the R Core Team

New features

- There is now a “Complex” S3 group generic (a side-effect of fixing up the corresponding S4 group generic).
- `help("regex")` now gives a description of the regular expressions used in R.
- The startup message now shows the R Foundation as copyright holder, and includes the R ISBN number and a pointer to the new `citation()` function.
- The `solve()` function now uses the ‘tol’ argument for all non-complex cases. The default tolerance for LINPACK is $1e-7$, as before. For LAPACK it currently is `.Machine$double.eps` but may be changed in later versions of R.
- `help.search()` now defaults to `agrep = FALSE` when `keyword=` is specified, since no one wants fuzzy matching of categories.

- Function `texi2dvi()` in package `tools` can be used to compile latex files from within R.
- Objects with formal S4 classes saved in pre-1.8 versions and loaded into the current version have incompatible class attributes (no package information). A new function, `fixPre1.8()` in package `methods`, will fix the class attributes. See the help for this function.
- `heatmap()` allows `Rowv/Colv = NA`, suppressing the corresponding dendrogram.
- An “antifeature”: Tcl 8.0 is now officially unsupported. In 1.8.0 it just didn’t work. This very old version lacks several features that are needed for the new version of the `tcltk` package. R will still build the `tcltk` package against Tcl 8.0 but the resulting package will not load.

The above lists only new features, see the ‘NEWS’ file in the R distribution or on the R homepage for a list of bug fixes.

Changes on CRAN

by Kurt Hornik and Friedrich Leisch

New contributed packages

CDNmoney Components of Canadian Monetary Aggregates with continuity adjustments. By Paul Gilbert.

HI Simulation from distributions supported by nested hyperplanes, using the algorithm described in Petris & Tardella, “A geometric approach to transdimensional Markov chain Monte Carlo”, *Canadian Journal of Statistics*, v.31, n.4, (2003). Also random direction multivariate Adaptive Rejection Metropolis Sampling. By Giovanni Petris and Luca Tardella.

asypow A set of routines written in the S language that calculate power and related quantities utilizing asymptotic likelihood ratio methods. S original by Barry W. Brown, James Lovato and Kathy Russel. R port by Kjetil Halvorsen.

concord Measures of concordance and reliability. By Jim Lemon.

covRobust The `cov.nnve()` function for robust covariance estimation by the nearest neighbor

variance estimation (NNVE) method of Wang and Raftery (2002, JASA). By Naisyin Wang and Adrian Raftery with contributions from Chris Fraley.

digest The `digest` package provides two functions for the creation of ‘hash’ digests of arbitrary R objects using the md5 and sha-1 algorithms permitting easy comparison of R language objects. The md5 algorithm by Ron Rivest is specified in RFC 1321. The SHA-1 algorithm is specified in FIPS-180-1. This package uses two small standalone C implementations (that were provided by Christophe Devine) of the md5 and sha-1 algorithms. Please note that this package is not meant to be used for cryptographic purposes for which more comprehensive (and widely tested) libraries such as OpenSSL should be used. By Dirk Eddelbuettel.

fda Analysis of functional data, that is data where the basic observation is a function of some sort—an area involving the generalization of the techniques of multivariate data analysis to functional data. By Jim Ramsay.

fork This library provides a simple wrapper around