

Changes in R

From version 3.2.4 to version 3.3.1 patched

by the R Core Team

CHANGES IN R 3.3.2 patched

NEW FEATURES

- The internal methods of `download.file()` and `url()` now report if they are unable to follow the redirection of a 'http://' URL to a 'https://' URL (rather than failing silently).

INSTALLATION on a UNIX-ALIKE

- The configure check for the zlib version is now robust to versions longer than 5 characters, including 1.2.10.

UTILITIES

- Environmental variable `_R_CHECK_TESTS_NLINES_` controls how R CMD check reports failing tests (see §8 of the 'R Internals' manual).

BUG FIXES

- `rep(x, times)` and `rep.int(x, times)` now both work also when `times` is larger than the maximal integer, including when it is of length greater than one. ([PR#16932](#))
- `vapply(x, *, ...)` now works with long vectors `x`. ([PR#17174](#))
- `isS3method("is.na.data.frame")` and similar are correct now. ([PR#17171](#))
- `grepRaw(<long>, <short>, fixed = TRUE)` now works, thanks to a patch by Mikko Korpela. ([PR#17132](#))
- Package installation into a library where the package exists via symbolic link now should work wherever `()` works, resolving [PR#16725](#).
- "Cincinnati" was missing an "n" in the `precip` dataset.
- Fix buffer overflow vulnerability in `pdf()` when loading an encoding file. Reported by Talos (TALOS-2016-0227).
- `getDLLRegisteredRoutines()` now produces its warning correctly when multiple DLLs match, thanks to Matt Dowle's [PR#17184](#).
- `Sys.timezone()` now returns non-NA also on platforms such as 'Ubuntu 14.04.5 LTS', thanks to Mikko Korpela's [PR#17186](#).
- `format(x)` for an illegal "POSIXlt" object `x` no longer segfaults.
- `methods(f)` now also works for `f "("` or `f "{"`.
- (Windows only) `dir.create()` did not check the length of the path to create, and so could overflow a buffer and crash R. ([PR#17206](#))
- On some systems, very small hexadecimal numbers in hex notation would underflow to zero. ([PR#17199](#))

- `pmin()` and `pmax()` now work again for ordered factors and 0-length S3 classed objects, thanks to Suharto Anggono's [PR#17195](#) and [PR#17200](#).
- `bug.report()` did not do any validity checking on a package's 'BugReports' field. It now ignores an empty field, removes leading whitespace and only attempts to open 'http://' and 'https://' URLs, falling back to emailing the maintainer.
- Bandwidth selectors `bw.ucv()` and `bw.SJ()` gave incorrect answers or incorrectly reported an error (because of integer overflow) for inputs longer than 46341. Similarly for `bw.bcv()` at length 5793.
Another possible integer overflow is checked and may result in an error report (rather than an incorrect result) for much longer inputs (millions for a smooth distribution).
- `findMethod` failed if the active signature had expanded beyond what a particular package used. (Example with packages [XR](#) and [XRJulia](#) on CRAN).
- `qbeta()` underflowed too early in some very asymmetric cases. ([PR#17178](#))

CHANGES IN R 3.3.2

NEW FEATURES

- `extSoftVersion()` now reports the version (if any) of the readline library in use.
- The version of LAPACK included in the sources has been updated to 3.6.1, a bug-fix release including a speedup for the non-symmetric case of `eigen()`.
- Use `options(deparse.max.lines=)` to limit the number of lines recorded in .Traceback and other deparsing activities.
- `format(<AsIs>)` looks more regular, also for non-character atomic matrices.
- `abbreviate()` gains an option named `= TRUE`.
- The online documentation for package **methods** is extensively rewritten. The goals are to simplify documentation for basic use, to note old features not recommended and to correct out-of-date information.
- Calls to `setMethod()` no longer print a message when creating a generic function in those cases where that is natural: S3 generics and primitives.

INSTALLATION and INCLUDED SOFTWARE

- Versions of the readline library ≥ 6.3 had been changed so that terminal window resizes were not signalled to readline: code has been added using a explicit signal handler to work around that (when R is compiled against readline ≥ 6.3). ([PR#16604](#))
- `configure` works better with Oracle Developer Studio 12.5.

UTILITIES

- R CMD check reports more dubious flags in files 'src/Makevars[.in]', including '-w' and '-g'.
- R CMD check has been set up to filter important warnings from recent versions of gfortran with '-Wall -pedantic': this now reports non-portable GNU extensions such as out-of-order declarations.
- R CMD config works better with paths containing spaces, even those of home directories (as reported by Ken Beath).

DEPRECATED AND DEFUNCT

- Use of the C/C++ macro ‘NO_C_HEADERS’ is deprecated (no C headers are included by R headers from C++ as from R 3.3.0, so it should no longer be needed).

BUG FIXES

- The check for non-portable flags in R CMD check could be stymied by ‘src/Makevars’ files which contained targets.
- (Windows only) When using certain desktop themes in Windows 7 or higher, Alt-Tab could cause Rterm to stop accepting input. ([PR#14406](#); patch submitted by Jan Gleixner.)
- `pretty(d, ...)` behaves better for date-time `d` ([PR#16923](#)).
- When an S4 class name matches multiple classes in the S4 cache, perform a dynamic search in order to obey namespace imports. This should eliminate annoying messages about multiple hits in the class cache. Also, pass along the package from the `ClassExtends` object when looking up superclasses in the cache.
- `sample(NA_real_)` now works.
- Packages using non-ASCII encodings in their code did not install data properly on systems using different encodings.
- `merge(df1, df2)` now also works for data frames with column names “na.last”, “decreasing”, or “method”. ([PR#17119](#))
- `contour()` caused a segfault if the `labels` argument had length zero. (Reported by Bill Dunlap.)
- `unique(warnings())` works more correctly, thanks to a new `duplicated.warnings()` method.
- `findInterval(x, vec = numeric(), all.inside = TRUE)` now returns 0s as documented. (Reported by Bill Dunlap.)
- (Windows only) R CMD SHLIB failed when a symbol in the resulting library had the same name as a keyword in the ‘.def’ file. ([PR#17130](#))
- `pmax()` and `pmin()` now work with (more ?) classed objects, such as “Matrix” from the [Matrix](#) package, as documented for a long time.
- `axis(side, x = D)` and hence `Axis()` and `plot()` now work correctly for “Date” and time objects `D`, even when “time goes backward”, e.g., with decreasing `xlim`. (Reported by William May.)
- `str(I(matrix(...)))` now looks as always intended.
- `plot.ts()`, the `plot()` method for time series, now respects `cex`, `lwd` and `lty`. (Reported by Greg Werbin.)
- `parallel::mccollect()` now returns a named list (as documented) when called with `wait = FALSE`. (Reported by Michel Lang.)
- If a package added a class to a class union in another package, loading the first package gave erroneous warnings about “undefined subclass”.
- `c()`’s argument `use.names` is documented now, as belonging to the (C internal) default method. In “parallel”, argument `recursive` is also moved from the generic to the default method, such that the formal argument list of **base** generic `c()` is just `(...)`.

- `rbeta(4,NA)` and similarly `rgamma()` and `rnbinom()` now return NaN's with a warning, as other `r<dist>()`, and as documented. ([PR#17155](#))
- Using `options(checkPackageLicense = TRUE)` no longer requires acceptance of the licence for non-default standard packages such as **compiler**. (Reported by Mikko Korpela.)
- `split(<very_long>,*)` now works even when the split off parts are long. ([PR#17139](#))
- `min()` and `max()` now also work correctly when the argument list starts with `character(0)`. ([PR#17160](#))
- Subsetting very large matrices (`prod(dim(.)) >= 2^31`) now works thanks to Michael Schubmehl's [PR#17158](#).
- `bartlett.test()` used residual sums of squares instead of variances, when the argument was a list of `lm` objects. (Reported by Jens Ledet Jensen).
- `plot(<lm>,which = *)` now correctly labels the contour lines for the standardized residuals for `which = 6`. It also takes the correct p in case of singularities (also for `which = 5`). ([PR#17161](#))
- `xtabs(~ exclude)` no longer fails from wrong scope, thanks to Suharto Anggono's [PR#17147](#).
- Reference class calls to `methods()` did not re-analyse previously defined methods, meaning that calls to methods defined later would fail. (Reported by Charles Tilford).
- `findInterval(x,vec,left.open = TRUE)` misbehaved in some cases. (Reported by Dmitriy Chernykh.)