Changes in R
From version 3.3.1 patched to version 3.3.2 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 `"{"`.

- (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.)