Changes in R
From version 3.4.2 to version 3.4.3

by R Core Team

CHANGES IN R 3.4.3

INSTALLATION on a UNIX-ALIKE

• A workaround has been added for the changes in location of time-zone files in macOS 10.13 'High Sierra' and again in 10.13.1, so the default time zone is deduced correctly from the system setting when R is configured with ‘--with-internal-tzcode’ (the default on macOS).

• R CMD javareconf has been updated to recognize the use of a Java 9 SDK on macOS.

BUG FIXES

• raw(0) & raw(0) and raw(0) | raw(0) again return raw(0) (rather than logical(0)).

• intToUtf8() converts integers corresponding to surrogate code points to NA rather than invalid UTF-8, as well as values larger than the current Unicode maximum of \textbackslash{0x10FFFF}. (This aligns with the current RFC3629.)

• Fix calling of methods on S4 generics that dispatch on \ldots when the call contains \ldots.

• Following Unicode 'Corrigendum 9', the UTF-8 representations of U+FFFE and U+FFFF are now regarded as valid by utf8ToInt().

• range(c(TRUE,NA),finite = TRUE) and similar no longer return NA. (Reported by Lukas Stadler.)

• The self starting function attr(SSlogis,”initial”) now also works when the y values have exact minimum zero and is slightly changed in general, behaving symmetrically in the y range.

• The printing of named raw vectors is now formatted nicely as for other such atomic vectors, thanks to Lukas Stadler.

CHANGES IN R 3.4.2

NEW FEATURES

• Setting the LC\_ALL category in Sys.setlocale() invalidates any cached locale-specific day/month names and the AM/PM indicator for strftime() (as setting LC\_TIME has since R 3.1.0).

• The version of LAPACK included in the sources has been updated to 3.7.1, a bug-fix release.

• The default for tools::write\_PACKAGES(rds\_compress=) has been changed to "xz" to match the compression used by CRAN.

• c() and unlist() are now more efficient in constructing the names(\ldots) of their return value, thanks to a proposal by Suharto Anggono. (PR#17284)
UTILITIES

- R CMD check checks for and R CMD build corrects CRLF line endings in shell scripts configure and cleanup (even on Windows).

INSTALLATION on a UNIX-ALIKE

- The order of selection of OpenMP flags has been changed: Oracle Developer Studio 12.5 accepts ‘-fopenmp’ and ‘-xopenmp’ but only the latter enables OpenMP so it is now tried first.

BUG FIXES

- `within(List, rm(x1, x2))` works correctly again, including when `List[["x2"]]]` is NULL.
- `regexec(pattern, text, *)` now applies as.character(.) to its first two arguments, as documented.
- `write.table()` and related functions, `writeLines()`, and perhaps other functions writing text to connections did not signal errors when the writes failed, e.g. due to a disk being full. Errors will now be signalled if detected during the write, warnings if detected when the connection is closed. (PR#17243)
- `rt()` assumed the ncp parameter was a scalar. (PR#17306)
- `menu(choices)` with more than 10 choices which easily fit into one `getOption("width")`-line no longer erroneously repeats choices. (PR#17312)
- `length()<=` on a pairlist succeeds. ([https://stat.ethz.ch/pipermail/r-devel/2017-July/074680.html](https://stat.ethz.ch/pipermail/r-devel/2017-July/074680.html))
- Language objects such as `quote("\n")` or R functions are correctly printed again, where R 3.4.1 accidentally duplicated the backslashes.
- Construction of `names()` for very large objects in `c()` and `unlist()` now works, thanks to Suharto Anggono’s patch proposals in PR#17292.
- Resource leaks (and similar) reported by Steve Grubb fixed. (PR#17314, PR#17316, PR#17317, PR#17318, PR#17319, PR#17320)
- `model.matrix(~1, mf)` now gets the row names from `mf` also when they differ from `1:nrow(mf)`, fixing PR#14992 thanks to the suggestion by Sebastian Meyer.
- `sigma(fm)` now takes the correct denominator degrees of freedom for a fitted model with NA coefficients. (PR#17313)
- `hist(x,"FD")` no longer “dies” with a somewhat cryptic error message when `x` has extreme outliers or IQR() zero: `nclass.FD(x)` tries harder to find a robust bin width `h` in the latter case, and `hist.default(*,breaks)` now checks and corrects a too large breaks number. (PR#17274)
- `callNextMethod()` works for ... methods.
- `qr.coef(qd, y)` now has correct names also when `qd` is a complex QR or stems from `qr(*, LAPACK=TRUE)`.
- Setting options(`device = *`) to an invalid function no longer segfaults when plotting is initiated. (PR#15883)
- `encodeString(<very large string>)` no longer segfaults. (PR#15885)
• It is again possible to use configure --enable-maintainer-mode without having installed notangle (it was required in R 3.4.01).

• S4 method dispatch on ... calls the method by name instead of .Method (for consistency with default dispatch), and only attempts to pass non-missing arguments from the generic.

• readRDS(textConnection(.)) works again. (PR#17325)

• (1:n)[-n] no longer segfaults for n <= 2.2e9 (on a platform with enough RAM).

• x <-1:2; tapply(x,list(x,x),function(x) "")[1,2] now correctly returns NA. (PR#17333)

• Running of finalizers after explicit GC request moved from the R interface do_gc to the C interface R_gc. This helps with reclaiming inaccessible connections.

• help.search(topic) and ??topic matching topics in vignettes with multiple file name extensions (e.g., '*.md.rsp' but not '*.Rmd') failed with an error when using options(help_type = "html").

• The X11 device no longer uses the Xlib backing store (PR#16497).

• array(character(),1) now gives (a 1D array with) NA as has been documented for a long time as in the other cases of zero-length array initialization and also compatibly with matrix(character(),*). As mentioned there, this also fixes PR#17333.

• splineDesign(...,derivs = 4) no longer segfaults.

• fisher.test(*,hybrid=TRUE) now (again) will use the hybrid method when Cochran’s conditions are met, fixing PR#16654.