

Conflict between buildmer and lme4

Carl James Schwarz

This is a demonstration of error when `summary()` applied to `glmer()` object and the `buildmer` package is loaded. This appears to be a case where `buildmer` redefined some function.

```
library(buildmer)
library(lme4)

## Loading required package: Matrix
nrow <- 100

test <- data.frame(x01=runif(nrow),
                  y=runif(nrow)<.1, block=as.factor(floor((1:nrow)/50)))
head(test)

##           x01      y block
## 1 0.94931139 FALSE     0
## 2 0.28015676 FALSE     0
## 3 0.56133706 FALSE     0
## 4 0.08981326 FALSE     0
## 5 0.65517694 FALSE     0
## 6 0.65149232 FALSE     0

fit.model <- lme4::glmer(y~x01 + (1|block), data=test,
                       family=binomial(link="logit"))

## boundary (singular) fit: see help('isSingular')
fit.model # this works

## Generalized linear mixed model fit by maximum likelihood (Laplace
## Approximation) [glmerMod]
## Family: binomial ( logit )
## Formula: y ~ x01 + (1 | block)
## Data: test
##           AIC          BIC    logLik deviance df.resid
## 61.6346 69.4501 -27.8173 55.6346      97
## Random effects:
## Groups Name          Std.Dev.
## block (Intercept) 0
## Number of obs: 100, groups:  block, 3
## Fixed Effects:
## (Intercept)          x01
## -2.6839          0.4489
## optimizer (Nelder_Mead) convergence code: 0 (OK) ; 0 optimizer warnings; 1 lme4 warnings
class(fit.model)

## [1] "glmerMod"
```

```

## attr(,"package")
## [1] "lme4"
summary(fit.model)

## Error in diag(from, names = FALSE): object 'dgeMatrix_getDiag' not found
vcov(fit.model)

## Error in diag(from, names = FALSE): object 'dgeMatrix_getDiag' not found
# gives the following error message
# Error in diag(from, names = FALSE) : object 'dgeMatrix_getDiag' not found

traceback()

## No traceback available
sessionInfo()

## R version 4.2.1 (2022-06-23)
## Platform: aarch64-apple-darwin20 (64-bit)
## Running under: macOS Monterey 12.6
##
## Matrix products: default
## BLAS: /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRblas.0.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/4.2-arm64/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_CA.UTF-8/en_CA.UTF-8/en_CA.UTF-8/C/en_CA.UTF-8/en_CA.UTF-8
##
## attached base packages:
## [1] stats graphics grDevices utils datasets methods base
##
## other attached packages:
## [1] lme4_1.1-30 Matrix_1.5-1 buildmer_2.6
##
## loaded via a namespace (and not attached):
## [1] Rcpp_1.0.9 lattice_0.20-45 digest_0.6.29 MASS_7.3-58.1
## [5] grid_4.2.1 nlme_3.1-160 magrittr_2.0.3 evaluate_0.17
## [9] rlang_1.0.6 stringi_1.7.8 cli_3.4.1 minqa_1.2.4
## [13] nloptr_2.0.3 boot_1.3-28 rmarkdown_2.17 splines_4.2.1
## [17] tools_4.2.1 stringr_1.4.1 xfun_0.33 yaml_2.3.6
## [21] fastmap_1.1.0 compiler_4.2.1 htmltools_0.5.3 knitr_1.40
# but if you detach buildmer, it now works
detach("package:buildmer", unload=TRUE)
summary(fit.model)

## Generalized linear mixed model fit by maximum likelihood (Laplace
## Approximation) [glmerMod]
## Family: binomial ( logit )
## Formula: y ~ x01 + (1 | block)
## Data: test
##
## AIC BIC logLik deviance df.resid
## 61.6 69.5 -27.8 55.6 97
##

```

```

## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -0.3267 -0.3089 -0.2902 -0.2737  3.5713
##
## Random effects:
##  Groups Name      Variance Std.Dev.
##  block (Intercept) 0          0
## Number of obs: 100, groups:  block, 3
##
## Fixed effects:
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept)  -2.6839     0.8101  -3.313 0.000923 ***
## x01           0.4489     1.3034   0.344 0.730569
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##      (Intr)
## x01 -0.890
## optimizer (Nelder_Mead) convergence code: 0 (OK)
## boundary (singular) fit: see help('isSingular')

```