Package 'texreg'

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Title Conversion of R Regression Output to LaTeX or HTML Tables

Description Converts coefficients, standard errors, significance stars, and goodness-of-fit statistics of statistical models into LaTeX tables or HTML tables/MS Word documents or to nicely formatted screen output for the R console for easy model comparison. A list of several models can be combined in a single table. The output is highly customizable. New model types can be easily implemented. Details can be found in Leifeld (2013), JStatSoft <doi:10.18637/jss.v055.i08>. (If the Zelig package, which this package enhances, cannot be found on CRAN, you can find it at <https://github.com/IQSS/Zelig>. If the mnlogit package, which this package enhances, cannot be found on CRAN, you can find an old version in the CRAN Archive at <https://cran.r-project.org/src/contrib/Archive/mnlogit/>.)

URL https://github.com/leifeld/texreg/

BugReports https://github.com/leifeld/texreg/issues/

Suggests broom (>= 0.4.2), coda (>= 0.19.2), ggplot2 (>= 3.1.0), huxtable (>= 4.2.0), knitr (>= 1.22), rmarkdown (>= 1.12.3), sandwich (>= 2.3-1), testthat (>= 2.0.0), lmtest (>= 0.9-34)

Depends R (>= 3.5)

Imports methods, stats, httr

Enhances AER, alpaca, betareg, Bergm, bife, biglm, brglm, brms (>= 2.8.8), btergm, dynlm, eha (>= 2.9.0), erer, ergm (>= 4.1.2), feisr (>= 1.0.1), fGarch, fixest (>= 0.10.5), forecast, gamlss, gamlss.inf, gee, glmmTMB, gmm, gnm, h2o, latentnet, lfe, lme4, lqmm, maxLik (>= 1.4.8), metaSEM (>= 1.2.5.1), mfx, mhurdle, miceadds, mlogit, mnlogit, MuMIn, nlme, nnet, oglmx, ordinal, pglm, plm (>= 2.4.1), relevent, rms, robust, simex, spatialreg (>= 1.2.1), spdep (>= 1.2.2), speedglm, survival, truncreg (>= 0.2.5), VGAM, Zelig

SystemRequirements pandoc (>= 1.12.3) suggested for using wordreg function; LaTeX packages tikz, booktabs, dcolumn, rotating, thumbpdf, longtable, paralist for the vignette

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`texreg-package` *Conversion of* R *Regression Output to LaTeX or HTML Tables*

Description

texreg converts coefficients, standard errors, uncertainty measures, and goodness-of-fit statistics of statistical models into LaTeX or HTML tables or into nicely formatted screen output for the R console. A list of several models can be combined in a single table. The output is customizable. New model types can be easily implemented. Confidence intervals can be used instead of standard errors and p-values.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

`extract` `texreg`

`createTexreg` *Constructor for texreg objects*

Description

Constructor for texreg objects.

Usage

```
createTexreg(
  coef.names,
  coef,
  se = numeric(0),
  pvalues = numeric(0),
  ci.low = numeric(0),
  ci.up = numeric(0),
  gof.names = character(0),
  gof = numeric(0),
  gof.decimal = logical(0),
  model.name = character(0)
)
```

Arguments

coef.names	The names for the covariates in a model as a character vector (= row names).
coef	The coefficients as a numeric vector. Can have length zero.
se	The standard errors as a numeric vector. Can have length zero.
pvalues	The p-values as a numeric vector. Can have length zero.
ci.low	The lower bounds of the confidence intervals as a numeric vector. Can have length zero.
ci.up	The upper bounds of the confidence intervals as a numeric vector. Can have length zero.
gof.names	Names of the goodness-of-fit statistics as a character vector. Can have length zero.
gof	Goodness-of-fit statistics as a numeric vector. Can have length zero.
gof.decimal	A logical vector with as many elements as the gof argument, indicating whether the respective GOF statistic is a double (TRUE) or integer (FALSE) number or whether it is a character entry (NA).
model.name	A name for the statistical model. Can be a character vector of length zero if there is no model name.

Details

This function creates a texreg object. A texreg object contains information about coefficients, standard errors, p-values (optional), and about goodness-of-fit statistics. Instead of standard errors and p-values, a texreg object may also contain upper and lower bounds of a confidence interval. texreg objects are used by the texreg function to create LaTeX tables and other representations of the model results.

Value

A texreg object representing the statistical model.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

extract

Examples

```
library("nlme")  # load library for fitting linear mixed effects models
model <- lme(distance ~ age, data = Orthodont, random = ~ 1)  # estimate
coefficient.names <- rownames(summary(model)$tTable)  # extract coef names
coefficients <- summary(model)$tTable[, 1]  # extract coefficient values
standard.errors <- summary(model)$tTable[, 2]  # extract standard errors
significance <- summary(model)$tTable[, 5]  #extract p-values

lik <- summary(model)$logLik  # extract log likelihood
aic <- summary(model)$AIC  # extract AIC
bic <- summary(model)$BIC  # extract BIC
n <- nobs(model)  # extract number of observations
gof <- c(aic, bic, lik, n)  # create a vector of GOF statistics
gof.names <- c("AIC", "BIC", "Log Likelihood", "Num. obs.")  # names of GOFs
decimal.places <- c(TRUE, TRUE, TRUE, FALSE)  # last one is a count variable

# create the texreg object
tr <- createTexreg(coef.names = coefficient.names,
                   coef = coefficients,
                   se = standard.errors,
                   pvalues = significance,
                   gof.names = gof.names,
                   gof = gof,
                   gof.decimal = decimal.places)
```

`extract` *Extract details from statistical models for table construction*

Description

Extract details from statistical models for table construction. The function has methods for a range of statistical models.

Usage

```
extract(model, ...)
```

Arguments

`model`	A statistical model object.
`...`	Custom parameters, which are handed over to subroutines. The arguments are usually passed to the `summary` function, but in some cases to other functions.

Details

The extract function serves to retrieve coefficients, standard errors, p-values, confidence intervals, and goodness-of-fit statistics from statistical models in R. More than 100 extract methods ("extensions") for various statistical models are available. The function returns a texreg object.

extract is a generic function, which extracts coefficients and GOF measures from statistical model objects. extract methods for the specific model types are called by the generic extract function if it encounters a model known to be handled by the specific method. The output is a texreg object, which is subsequently used by the texreg function and related functions.

To list the model classes for which extract methods exist, type `showMethods("extract")` or `methods("extract")`. To show the method definition (i.e., the function body) of a specific extract method, use the `getMethod` function, for example `getMethod("extract", "lm")` for linear models. To get help on a specific extract method, type something like `?\`extract,lm-method\`` (or something similar for other models, where `"lm"` needs to be replaced by the class name of the respective model). You can also list the available methods by displaying the texreg package help index.

Users can contribute their own extensions for additional statistical models. Examples are contained in the article in the Journal of Statistical Software referenced below. Suggestions can be submitted as pull requests at https://github.com/leifeld/texreg/pulls or through the issue tracker at https://github.com/leifeld/texreg/issues.

Value

The function returns a texreg object.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

createTexreg, matrixreg, screenreg, texreg

---

extract,aftreg-method *extract method for aftreg objects*

Description

extract method for aftreg objects created by the aftreg function in the **eha** package.

Usage

```
## S4 method for signature 'aftreg'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.lr = TRUE,
  include.nobs = TRUE,
  include.events = TRUE,
  include.trisk = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.lr	Report likelihood ratio test?
include.nobs	Report the number of observations in the GOF block?
include.events	Report the number of events in the GOF block?
include.trisk	Report the total time at risk (in event-history models)?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,ANY-method `extract` *method for* broom *objects*

Description

`extract` method for broom objects created by the `broom` function in the **broom** package.

Usage

```
## S4 method for signature 'ANY'
extract(model, ...)
```

Arguments

model	A statistical model object.
...	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,Arima-method` `extract` *method for* `Arima` *objects*

Description

`extract` method for `Arima` objects created by the `arima` function in the **stats** package.

Usage

```
## S4 method for signature 'Arima'
extract(
  model,
  include.pvalues = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.pvalues`	Report p-values?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,averaging-method`
`extract` *method for* `averaging` *objects*

Description

`extract` method for `averaging` objects created by the `model.avg` function in the **MuMIn** package.

Usage

```
## S4 method for signature 'averaging'
extract(model, use.ci = FALSE, adjusted.se = FALSE, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
use.ci	Report confidence intervals in the GOF block?
adjusted.se	Report adjusted standard error in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,bam-method *extract method for* bam *objects*

Description

extract method for bam objects created by the bam function in the **mgcv** package.

Usage

```
## S4 method for signature 'bam'
extract(
  model,
  include.smooth = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.dev.expl = TRUE,
  include.dispersion = TRUE,
  include.rsquared = TRUE,
  include.gcv = TRUE,
  include.nobs = TRUE,
  include.nsmooth = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.smooth	Report the smooth terms of a GAM? If they are reported, the EDF value is reported as the coefficient, and DF is included in parentheses (not standard errors because a chi-square test is used for the smooth terms).
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?

include.dev.expl
: Report the deviance explained?

include.dispersion
: Report the dispersion parameter?

include.rsquared
: Report R^2 in the GOF block?

include.gcv
: Report the GCV score?

include.nobs
: Report the number of observations in the GOF block?

include.nsmooth
: Report the number of smooth terms?

...
: Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,bergm-method *extract method for* bergm *objects*

Description

extract method for bergm objects created by the bergm function in the **Bergm** package.

Usage

```
## S4 method for signature 'bergm'
extract(model, posterior.median = FALSE, level = 0.95, ...)
```

Arguments

model
: A statistical model object.

posterior.median
: Report the posterior median instead of the default posterior mean as coefficients?

level
: Confidence level, i.e., the proportion of the posterior distribution to be included in the credible interval.

...
: Custom parameters, which are handed over to subroutines. Currently not in use.

extract,betamfx-method

extract *method for* betamfx *objects*

Description

extract method for betamfx objects created by the betamfx function in the **mfx** package.

Usage

```
## S4 method for signature 'betamfx'
extract(
  model,
  include.pseudors = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.pseudors	Report pseudo R^2 in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

extract,betaor-method extract *method for* betaor *objects*

Description

extract method for betaor objects created by the betaor function in the **mfx** package.

Usage

```
## S4 method for signature 'betaor'
extract(
  model,
  include.pseudors = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.pseudors	Report pseudo R^2 in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,betareg-method

extract method for betareg objects

Description

extract method for betareg objects created by the betareg function in the **betareg** package.

Usage

```
## S4 method for signature 'betareg'
extract(
  model,
  include.precision = TRUE,
  include.pseudors = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.precision	Report precision in the GOF block?
include.pseudors	Report pseudo R^2 in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,bife-method *extract method for* bife *objects*

Description

extract method for bife objects created by the bife function in the **bife** package.

Usage

```
## S4 method for signature 'bife'
extract(
  model,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the residual deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Philip Leifeld, Christoph Riedl, Claudia Zucca

extract,biglm-method *extract method for* biglm *objects*

Description

extract method for biglm objects created by the biglm function in the **biglm** package.

Usage

```
## S4 method for signature 'biglm'
extract(model, include.nobs = TRUE, include.aic = TRUE, use.ci = FALSE, ...)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
use.ci	Report confidence intervals in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Claudia Zucca, Philip Leifeld

---

extract,brglm-method extract *method for* brglm *objects*

Description

extract method for brglm objects created by the brglm function in the **brglm** package.

Usage

```
## S4 method for signature 'brglm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,brmsfit-method

extract *method for* brmsfit *objects*

Description

extract method for brmsfit objects created by the brm function in the **brms** package.

Usage

```
## S4 method for signature 'brmsfit'
extract(
  model,
  use.HDI = TRUE,
  level = 0.9,
  include.random = TRUE,
  include.rsquared = TRUE,
  include.nobs = TRUE,
  include.loo.ic = TRUE,
  reloo = FALSE,
  include.waic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
use.HDI	Report highest posterior density (HPD) intervals (HDI) using the HPDinterval function in the **coda** package, with the probability given in the level argument, instead of the default 95 percent posterior quantiles?
level	Significance level (1 - alpha) for HPDs (in combination with the use.HDI argument).
include.random	Include random effects (standard deviations) in the GOF block of the table?
include.rsquared	Report R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.loo.ic	Report Leave-One-Out Information Criterion?
reloo	Recompute exact cross-validation for problematic observations for which approximate leave-one-out cross-validation may return incorrect results? This is done using the reloo.brmsfit function and may take some time to compute.
include.waic	Report Widely Applicable Information Criterion (WAIC)?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

Author(s)

Hyunjin (Jin) Song, Philip Leifeld

---

extract,btergm-method `extract` *method for* btergm *objects*

Description

`extract` method for btergm objects created by the `btergm` function in the **btergm** package.

Usage

```
## S4 method for signature 'btergm'
extract(model, level = 0.95, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,censReg-method `extract` *method for* censReg *objects*

Description

`extract` method for censReg objects created by the censReg function in the **censReg** package.

Usage

```
## S4 method for signature 'censReg'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,clm-method *extract method for* clm *objects*

Description

extract method for clm objects created by the clm function in the **ordinal** package.

Usage

```
## S4 method for signature 'clm'
extract(
  model,
  include.thresholds = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.thresholds	Report thresholds in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,clmm-method` `extract` *method for* `clmm` *objects*

Description

`extract` method for `clmm` objects created by the `clmm` function in the **ordinal** package.

Usage

```
## S4 method for signature 'clmm'
extract(
  model,
  include.thresholds = TRUE,
  include.loglik = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.thresholds`	Report thresholds in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`include.groups`	Report the number of groups?
`include.variance`	Report group variances?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

extract,clogit-method `extract` *method for* `clogit` *objects*

Description

`extract` method for `clogit` objects created by the `clogit` function in the **survival** package.

Usage

```
## S4 method for signature 'clogit'
extract(
  model,
  include.aic = TRUE,
  include.rsquared = TRUE,
  include.maxrs = TRUE,
  include.events = TRUE,
  include.nobs = TRUE,
  include.missings = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.rsquared`	Report R^2 in the GOF block?
`include.maxrs`	Report maximal R^2 in the GOF block?
`include.events`	Report the number of events in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`include.missings`	Report number of missing data points in the GOF block?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

extract,coeftest-method `extract` *method for* `coeftest` *objects*

Description

`extract` method for `coeftest` objects created by the `coeftest` function in the **lmtest** package.

Usage

```
## S4 method for signature 'coeftest'
extract(model, ...)
```

Arguments

model	A statistical model object.
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,coxph-method *extract method for* coxph *objects*

Description

extract method for coxph objects created by the coxph function in the **survival** package.

Usage

```
## S4 method for signature 'coxph'
extract(
  model,
  include.aic = TRUE,
  include.rsquared = TRUE,
  include.maxrs = TRUE,
  include.events = TRUE,
  include.nobs = TRUE,
  include.missings = TRUE,
  include.zph = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.rsquared	Report R^2 in the GOF block?
include.maxrs	Report maximal R^2 in the GOF block?
include.events	Report the number of events in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.missings	Report number of missing data points in the GOF block?
include.zph	Report proportional hazard test in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,coxph.penal-method
extract *method for* coxph.penal *objects*

Description

extract method for coxph.penal objects created by the coxph function in the **survival** package.

Usage

```
## S4 method for signature 'coxph.penal'
extract(
  model,
  include.aic = TRUE,
  include.rsquared = TRUE,
  include.maxrs = TRUE,
  include.events = TRUE,
  include.nobs = TRUE,
  include.missings = TRUE,
  include.zph = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.rsquared	Report R^2 in the GOF block?
include.maxrs	Report maximal R^2 in the GOF block?
include.events	Report the number of events in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.missings	Report number of missing data points in the GOF block?
include.zph	Report proportional hazard test in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,coxreg-method *extract method for* coxreg *objects*

Description

extract method for coxreg objects created by the coxreg function in the **eha** package.

Usage

```
## S4 method for signature 'coxreg'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.lr = TRUE,
  include.nobs = TRUE,
  include.events = TRUE,
  include.trisk = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.lr	Report likelihood ratio test?
include.nobs	Report the number of observations in the GOF block?
include.events	Report the number of events in the GOF block?
include.trisk	Report the total time at risk (in event-history models)?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

extract,dynlm-method *extract method for* dynlm *objects*

Description

extract method for dynlm objects created by the dynlm function in the **dynlm** package.

Usage

```
## S4 method for signature 'dynlm'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,ergm-method *extract method for ergm objects*

Description

extract method for ergm objects created by the ergm function in the **ergm** package.

Usage

```
## S4 method for signature 'ergm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,ergmm-method *extract method for* ergmm *objects*

Description

extract method for ergmm objects created by the ergmm function in the **latentnet** package.

Usage

```
## S4 method for signature 'ergmm'
extract(model, include.bic = TRUE, ...)
```

Arguments

model	A statistical model object.
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,ets-method *extract method for* ets *objects*

Description

extract method for ets objects created by the ets function in the **forecast** package.

Usage

```
## S4 method for signature 'ets'
extract(
  model,
  include.pvalues = FALSE,
  include.aic = TRUE,
  include.aicc = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.pvalues	Report p-values?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.aicc	Report AICC in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,feglm-method *extract method for feglm objects*

Description

extract method for feglm objects created by the feglm function in the **alpaca** package.

Usage

```
## S4 method for signature 'feglm'
extract(
  model,
  include.deviance = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

Author(s)

Christoph Riedl, Oliver Reiter, Philip Leifeld

`extract,feis-method` `extract` *method for* `feis` *objects*

Description

`extract` method for `feis` objects created by the `feis` function in the **feisr** package.

Usage

```
## S4 method for signature 'feis'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.rmse = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.rsquared`	Report R^2 in the GOF block?
`include.adjrs`	Report adjusted R^2 in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`include.groups`	Report the number of groups?
`include.rmse`	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

Author(s)

Tobias Rüttenauer, Philip Leifeld

`extract,felm-method` *extract method for* `felm` *objects*

Description

`extract` method for `felm` objects created by the `felm` function in the **lfe** package.

Usage

```
## S4 method for signature 'felm'
extract(
  model,
  include.nobs = TRUE,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.fstatistic = FALSE,
  include.proj.stats = TRUE,
  include.groups = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.rsquared`	Report R^2 in the GOF block?
`include.adjrs`	Report adjusted R^2 in the GOF block?
`include.fstatistic`	Report the F-statistic in the GOF block?
`include.proj.stats`	Include statistics for projected model in the GOF block?
`include.groups`	Report the number of groups?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

Author(s)

Christoph Riedl, Claudia Zucca, Oliver Reiter, Philip Leifeld

---

`extract,fGARCH-method` `extract` *method for* `fGARCH` *objects*

Description

`extract` method for `fGARCH` objects created by the `garchFit` function in the **fGarch** package.

Usage

```
## S4 method for signature 'fGARCH'
extract(
  model,
  include.nobs = TRUE,
  include.aic = TRUE,
  include.loglik = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,fixest-method` `extract` *method for* `fixest` *objects*

Description

`extract` method for `fixest` objects created by the model fitting functions in the **fixest** package. The method can deal with OLS (fitted by `feols`) and GLM/MLE models (fitted by `feglm` and other functions).

Usage

```
## S4 method for signature 'fixest'
extract(
  model,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
```

```
  include.proj.stats = TRUE,
  include.deviance = TRUE,
  include.loglik = TRUE,
  include.pseudors = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations?
include.groups	Report the number of groups?
include.rsquared	Report R^2? (OLS only)
include.adjrs	Report adjusted R^2? (OLS only)
include.proj.stats	Include statistics for projected model? (OLS only)
include.deviance	Report the deviance? (GLM/MLE only)
include.loglik	Report the log likelihood? (GLM/MLE only)
include.pseudors	Report Pseudo-R^2? (GLM/MLE only)
...	Custom parameters, which are handed over to the coeftable method for the fixest object.

Author(s)

Christopher Poliquin, Philip Leifeld

---

extract,forecast-method

extract method for forecast objects

Description

extract method for forecast objects created by the forecast and holt functions in the **forecast** package.

Usage

```
## S4 method for signature 'forecast'
extract(model, ...)
```

Arguments

model	A statistical model object.
...	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,forecast_ARIMA-method`
`extract` *method for* `forecast_ARIMA` *objects*

Description

`extract` method for `forecast_ARIMA` objects created by the `Arima` function in the **forecast** package.

Usage

```
## S4 method for signature 'forecast_ARIMA'
extract(
  model,
  include.pvalues = TRUE,
  include.aic = TRUE,
  include.aicc = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.pvalues`	Report p-values?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.aicc`	Report AICC in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,gam-method` `extract` *method for* `gam` *objects*

Description

`extract` method for `gam` objects created by the `gam` function in the **mgcv** package.

Usage

```
## S4 method for signature 'gam'
extract(
  model,
  include.smooth = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.dev.expl = TRUE,
  include.dispersion = TRUE,
  include.rsquared = TRUE,
  include.gcv = TRUE,
  include.nobs = TRUE,
  include.nsmooth = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.smooth`	Report the smooth terms of a GAM? If they are reported, the EDF value is reported as the coefficient, and DF is included in parentheses (not standard errors because a chi-square test is used for the smooth terms).
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.dev.expl`	Report the deviance explained?
`include.dispersion`	Report the dispersion parameter?
`include.rsquared`	Report R^2 in the GOF block?
`include.gcv`	Report the GCV score?
`include.nobs`	Report the number of observations in the GOF block?
`include.nsmooth`	Report the number of smooth terms?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

extract,gamlss-method extract *method for* gamlss *objects*

Description

extract method for gamlss objects created by the gamlss function in the **gamlss** package.

Usage

```
## S4 method for signature 'gamlss'
extract(
  model,
  robust = FALSE,
  include.nobs = TRUE,
  include.nagelkerke = TRUE,
  include.gaic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
robust	If TRUE computes robust standard errors in the variance-covariance matrix.
include.nobs	Report the number of observations in the GOF block?
include.nagelkerke	Report Nagelkerke R^2 in the GOF block?
include.gaic	Report Generalized Akaike's Information Criterion (AIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the vcov method for the object.

extract,gamlssZadj-method extract *method for* gamlssZadj *objects*

Description

extract method for gamlssZadj objects created by the gamlssZadj function in the **gamlss.inf** package.

Usage

```
## S4 method for signature 'gamlssZadj'
extract(
  model,
  type = c("qr", "vcov"),
  include.nobs = TRUE,
  include.gaic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
type	The type.
include.nobs	Report the number of observations in the GOF block?
include.gaic	Report Generalized Akaike's Information Criterion (AIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the vcov method for the object.

Author(s)

Ricardo Graiff Garcia, Philip Leifeld

---

extract,gee-method *extract method for gee objects*

Description

extract method for gee objects created by the gee function in the **gee** package.

Usage

```
## S4 method for signature 'gee'
extract(model, robust = TRUE, include.scale = TRUE, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
robust	If TRUE computes robust standard errors in the variance-covariance matrix.
include.scale	Report the dispersion or scale parameter?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,geeglm-method `extract` *method for* `geeglm` *objects*

Description

`extract` method for `geeglm` objects created by the `geeglm` function in the **geepack** package.

Usage

```
## S4 method for signature 'geeglm'
extract(
  model,
  include.scale = TRUE,
  include.correlation = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.scale`	Report the dispersion or scale parameter?
`include.correlation`	Report the correlation parameter alpha and its standard error?
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

extract,gel-method `extract` *method for* `gel` *objects*

Description

`extract` method for `gel` objects created by the `gel` function in the **gmm** package.

Usage

```
## S4 method for signature 'gel'
extract(
  model,
  include.obj.fcn = TRUE,
  include.overidentification = FALSE,
  include.nobs = TRUE,
  overIdentTest = c("LR", "LM", "J "),
  ...
)
```

Arguments

model	A statistical model object.
include.obj.fcn	Report the value of the objective function (= criterion function)? More precisely, this returns E(g)var(g)^{-1}E(g).
include.overidentification	Report the J-test for overidentification?
include.nobs	Report the number of observations in the GOF block?
overIdentTest	Which test statistics should be included in an overidentification test?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,glm-method *extract method for* glm *objects*

Description

extract method for glm objects created by the glm function in the **stats** package.

Usage

```
## S4 method for signature 'glm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,glm.cluster-method`
`extract` *method for* `glm.cluster` *objects*

Description

`extract` method for `glm.cluster` objects created by the `glm.cluster` function in the **miceadds** package.

Usage

```
## S4 method for signature 'glm.cluster'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Alexander Staudt, Philip Leifeld

extract,glmerMod-method

extract *method for* glmerMod *objects*

Description

extract method for glmerMod objects created by the glmer function in the **lme4** package.

Usage

```
## S4 method for signature 'glmerMod'
extract(
  model,
  method = c("naive", "profile", "boot", "Wald"),
  level = 0.95,
  nsim = 1000,
  include.aic = TRUE,
  include.bic = TRUE,
  include.dic = FALSE,
  include.deviance = FALSE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
method	The method used to compute confidence intervals or p-values. The default value "naive" computes naive p-values while the other methods compute confidence intervals using the confint function. See confint.merMod.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
nsim	The MCMC sample size or number of bootstrapping replications on the basis of which confidence intervals are computed (only if the method argument does not specify "naive", which is the default behavior). Note: large values may take considerable computing time.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.dic	Report the deviance information criterion (DIC)?
include.deviance	Report the deviance?
include.loglik	Report the log likelihood in the GOF block?

include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Arguments to be passed to the fixef function in the **lme4** package.

---

extract,glmmadmb-method

extract *method for* glmmadmb *objects*

Description

extract method for glmmadmb objects created by the glmmadmb function in the **glmmADMB** package.

Usage

```
## S4 method for signature 'glmmadmb'
extract(
  model,
  include.variance = TRUE,
  include.dispersion = TRUE,
  include.zero = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.variance	Report group variances?
include.dispersion	Report the dispersion parameter?
include.zero	Should the binary part of a zero-inflated regression model or hurdle model be included in the coefficients block (after the count model)?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,glmmPQL-method

extract *method for* glmmPQL *objects*

Description

extract method for glmmPQL objects created by the glmmPQL function in the **MASS** package.

Usage

```
## S4 method for signature 'glmmPQL'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,glmmTMB-method

extract *method for* glmmTMB *objects*

Description

extract method for glmmTMB objects created by the glmmTMB function in the **glmmTMB** package.

Usage

```
## S4 method for signature 'glmmTMB'
extract(
  model,
  beside = FALSE,
  include.count = TRUE,
  include.zero = TRUE,
  include.aic = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
beside	Arrange the model terms below each other or beside each other? The binary model parameters and the count parameters can be displayed in two separate columns of the table.
include.count	Report the count parameters in the coefficients block (before the binary part for the zeros)?
include.zero	Should the binary part of the model be included in the coefficients block (after the count parameters)?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

Author(s)

Ricardo Graiff Garcia, Philip Leifeld

extract,glmrob-method `extract` *method for* `glmrob` *objects*

Description

`extract` method for `glmrob` objects created by the `glmrob` function in the **robustbase** package.

Usage

```
## S4 method for signature 'glmrob'
extract(model, include.nobs = TRUE, ...)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

extract,gls-method `extract` *method for* `gls` *objects*

Description

`extract` method for `gls` objects created by the `gls` function in the **nlme** package.

Usage

```
## S4 method for signature 'gls'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?

include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,gmm-method *extract method for* gmm *objects*

Description

extract method for gmm objects created by the gmm function in the **gmm** package.

Usage

```
## S4 method for signature 'gmm'
extract(
  model,
  include.obj.fcn = TRUE,
  include.overidentification = FALSE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.obj.fcn	Report the value of the objective function (= criterion function)? More precisely, this returns E(g)var(g)^{-1}E(g).
include.overidentification	Report the J-test for overidentification?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,gnls-method *extract method for* gnls *objects*

Description

extract method for gnls objects created by the gnls function in the **nlme** package.

Usage

```
## S4 method for signature 'gnls'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,gnm-method *extract method for gnm objects*

Description

extract method for gnm objects created by the gnm function in the **gnm** package.

Usage

```
## S4 method for signature 'gnm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  include.df = FALSE,
  include.chisq = FALSE,
  include.delta = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
include.df	Report the degrees of freedom?
include.chisq	Report the chi squared statistic?
include.delta	Report the delta statistic?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,H2OBinomialModel-method

extract method for H2OBinomialModel *objects*

Description

extract method for H2OBinomialModel objects created by the h2o.glm function in the **h2o** package.

Usage

```
## S4 method for signature 'H2OBinomialModel'
extract(
  model,
  standardized = FALSE,
  include.mse = TRUE,
  include.rsquared = TRUE,
  include.logloss = TRUE,
  include.meanerror = TRUE,
  include.auc = TRUE,
  include.gini = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
standardized	Report standardized coefficients instead of raw coefficients?
include.mse	Report the mean squared error in the GOF block?
include.rsquared	Report R^2 in the GOF block?
include.logloss	Report the log loss?
include.meanerror	Report the mean per-class error?
include.auc	Report the area under the curve (AUC)?
include.gini	Report the Gini coefficient?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,hurdle-method *extract method for* hurdle *objects*

Description

extract method for hurdle objects created by the hurdle function in the **pscl** package.

Usage

```
## S4 method for signature 'hurdle'
extract(
  model,
  beside = FALSE,
  include.count = TRUE,
  include.zero = TRUE,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
beside	Arrange the model terms below each other or beside each other? The binary model parameters and the count parameters can be displayed in two separate columns of the table.

include.count	Report the count parameters in the coefficients block (before the binary part for the zeros)?
include.zero	Should the binary part of the model be included in the coefficients block (after the count parameters)?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,ivreg-method *extract method for ivreg objects*

Description

extract method for ivreg objects created by the ivreg function in the **AER** package.

Usage

```
## S4 method for signature 'ivreg'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,lm-method *extract method for* lm *objects*

Description

extract method for lm objects created by the lm function in the **stats** package.

Usage

```
## S4 method for signature 'lm'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,lm.cluster-method *extract method for* lm.cluster *objects*

Description

extract method for lm.cluster objects created by the lm.cluster function in the **miceadds** package.

Usage

```
## S4 method for signature 'lm.cluster'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Alexander Staudt, Philip Leifeld

---

extract,lme-method *extract method for* lme *objects*

Description

extract method for lme objects created by the lme function in the **nlme** package.

Usage

```
## S4 method for signature 'lme'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
```

```
  include.groups = TRUE,
  include.variance = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,lme4-method *extract method for* lme4 *objects*

Description

extract method for lme4 objects created by the **lme4** package.

Usage

```
## S4 method for signature 'lme4'
extract(
  model,
  method = c("naive", "profile", "boot", "Wald"),
  level = 0.95,
  nsim = 1000,
  include.aic = TRUE,
  include.bic = TRUE,
  include.dic = FALSE,
  include.deviance = FALSE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
method	The method used to compute confidence intervals or p-values. The default value "naive" computes naive p-values while the other methods compute confidence intervals using the confint function. See confint.merMod.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
nsim	The MCMC sample size or number of bootstrapping replications on the basis of which confidence intervals are computed (only if the method argument does not specify "naive", which is the default behavior). Note: large values may take considerable computing time.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.dic	Report the deviance information criterion (DIC)?
include.deviance	Report the deviance?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Arguments to be passed to the fixef function in the **lme4** package.

---

extract,lmerMod-method

extract method for lmerMod objects

Description

extract method for lmerMod objects created by the lmer function in the **lme4** package.

Usage

```
## S4 method for signature 'lmerMod'
extract(
  model,
  method = c("naive", "profile", "boot", "Wald"),
  level = 0.95,
  nsim = 1000,
  include.aic = TRUE,
  include.bic = TRUE,
  include.dic = FALSE,
  include.deviance = FALSE,
  include.loglik = TRUE,
```

```
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
method	The method used to compute confidence intervals or p-values. The default value "naive" computes naive p-values while the other methods compute confidence intervals using the confint function. See confint.merMod.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
nsim	The MCMC sample size or number of bootstrapping replications on the basis of which confidence intervals are computed (only if the method argument does not specify "naive", which is the default behavior). Note: large values may take considerable computing time.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.dic	Report the deviance information criterion (DIC)?
include.deviance	Report the deviance?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Arguments to be passed to the fixef function in the **lme4** package.

---

extract,lmrob-method *extract method for* lmrob *objects*

Description

extract method for lmrob objects created by the lmrob function in the **robustbase** package.

extract method for lmRob objects created by the lmRob function in the **robust** package.

Usage

```
## S4 method for signature 'lmrob'
extract(model, include.nobs = TRUE, ...)

## S4 method for signature 'lmRob'
extract(
  model,
  include.rsquared = TRUE,
  include.nobs = TRUE,
  include.rmse = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.
include.rsquared	Report R^2 in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?

---

extract,lnam-method *extract method for* lnam *objects*

Description

extract method for lnam objects created by the lnam function in the **sna** package.

Usage

```
## S4 method for signature 'lnam'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the coef method for the object.

---

extract,logitmfx-method

extract method for logitmfx objects

Description

extract method for logitmfx objects created by the logitmfx function in the **mfx** package.

Usage

```
## S4 method for signature 'logitmfx'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,logitor-method` `extract` *method for* `logitor` *objects*

Description

`extract` method for `logitor` objects created by the `logitor` function in the **mfx** package.

Usage

```
## S4 method for signature 'logitor'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,lqmm-method` `extract` *method for* `lqmm` *objects*

Description

`extract` method for `lqmm` objects created by the `lqmm` function in the **lqmm** package.

Usage

```
## S4 method for signature 'lqmm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.tau = FALSE,
  use.ci = FALSE,
  beside = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.tau	Report tau?
use.ci	Report confidence intervals in the GOF block?
beside	Arrange the model terms below each other or beside each other?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,lrm-method *extract method for* lrm *objects*

Description

extract method for lrm objects created by the lrm function in the **rms** package.

Usage

```
## S4 method for signature 'lrm'
extract(
  model,
  include.pseudors = TRUE,
  include.lr = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.pseudors	Report pseudo R^2 in the GOF block?
include.lr	Report likelihood ratio test?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Fabrice Le Lec

---

extract,maBina-method *extract method for* maBina *objects*

Description

extract method for maBina objects created by the maBina function in the **erer** package.

Usage

```
## S4 method for signature 'maBina'
extract(model, ...)
```

Arguments

model	A statistical model object.
...	Custom parameters, which are handed over to subroutines.

---

extract,maxLik-method *extract method for* maxLik *objects*

Description

extract method for maxLik objects created by the maxLik function in the **maxLik** package.

Usage

```
## S4 method for signature 'maxLik'
extract(model, include.loglik = TRUE, include.aic = TRUE, ...)
```

Arguments

model	A statistical model object.
include.loglik	Report the log likelihood in the GOF block?
include.aic	Report the AIC in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,merMod-method *extract method for merMod objects*

Description

extract method for merMod objects created by the **lme4** package.

Usage

```
## S4 method for signature 'merMod'
extract(
  model,
  method = c("naive", "profile", "boot", "Wald"),
  level = 0.95,
  nsim = 1000,
  include.aic = TRUE,
  include.bic = TRUE,
  include.dic = FALSE,
  include.deviance = FALSE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
method	The method used to compute confidence intervals or p-values. The default value "naive" computes naive p-values while the other methods compute confidence intervals using the confint function. See confint.merMod.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
nsim	The MCMC sample size or number of bootstrapping replications on the basis of which confidence intervals are computed (only if the method argument does not specify "naive", which is the default behavior). Note: large values may take considerable computing time.

include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.dic	Report the deviance information criterion (DIC)?
include.deviance	Report the deviance?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Arguments to be passed to the fixef function in the **lme4** package.

---

extract,mhurdle-method

extract *method for* mhurdle *objects*

Description

extract method for mhurdle objects created by the mhurdle function in the **mhurdle** package.

Usage

```
## S4 method for signature 'mhurdle'
extract(model, include.nobs = TRUE, include.loglik = TRUE, ...)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,mlogit-method` `extract` *method for* `mlogit` *objects*

Description

`extract` method for `mlogit` objects created by the `mlogit` function in the **mlogit** package.

Usage

```
## S4 method for signature 'mlogit'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.order = FALSE,
  include.iterations = FALSE,
  beside = FALSE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`include.groups`	Report the number of groups?
`include.order`	Report coefficient names in alphabetical order?
`include.iterations`	Report the number of iterations?
`beside`	Arrange the model terms below each other or beside each other?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

`extract,mnlogit-method`

`extract` *method for* `mnlogit` *objects*

Description

`extract` method for `mnlogit` objects created by the `mnlogit` function in the **mnlogit** package.

Usage

```
## S4 method for signature 'mnlogit'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.iterations = FALSE,
  beside = FALSE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.nobs`	Report the number of observations in the GOF block?
`include.groups`	Report the number of groups?
`include.iterations`	Report the number of iterations?
`beside`	Arrange the model terms below each other or beside each other?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

`extract,model.selection-method`

`extract` *method for* `model.selection` *objects*

Description

`extract` method for `model.selection` objects created by the `model.sel` and `dredge` functions in the **MuMIn** package.

Usage

```
## S4 method for signature 'model.selection'
extract(
  model,
  include.loglik = TRUE,
  include.aicc = TRUE,
  include.delta = TRUE,
  include.weight = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.loglik	Report the log likelihood in the GOF block?
include.aicc	Report AICC in the GOF block?
include.delta	Report the delta statistic?
include.weight	Report Akaike weights?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,mtergm-method *extract method for* mtergm *objects*

Description

extract method for mtergm objects created by the mtergm function in the **btergm** package.

Usage

```
## S4 method for signature 'mtergm'
extract(
  model,
  include.nobs = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,multinom-method

extract method for multinom objects

Description

extract method for multinom objects created by the multinom function in the **nnet** package.

Usage

```
## S4 method for signature 'multinom'
extract(
  model,
  include.pvalues = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  levels = model$lev,
  beside = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.pvalues	Report p-values?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?

include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
levels	The names of the levels of a multinomial model that should be included in the table. Should be provided as a vector of character strings.
beside	Arrange the model terms below each other or beside each other?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,negbin-method *extract method for* negbin *objects*

Description

extract method for negbin objects created by the glm.nb function in the **MASS** package.

Usage

```
## S4 method for signature 'negbin'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,negbinirr-method`

`extract` *method for* `negbinirr` *objects*

Description

`extract` method for `negbinirr` objects created by the `negbinirr` function in the **mfx** package.

Usage

```
## S4 method for signature 'negbinirr'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,negbinmfx-method`

`extract` *method for* `negbinmfx` *objects*

Description

`extract` method for `negbinmfx` objects created by the `negbinmfx` function in the **mfx** package.

Usage

```
## S4 method for signature 'negbinmfx'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,netlogit-method

extract method for netlogit objects

Description

extract method for netlogit objects created by the netlogit function in the **sna** package.

Usage

```
## S4 method for signature 'netlogit'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,nlme-method *extract method for* nlme *objects*

Description

extract method for nlme objects created by the nlme function in the **nlme** package.

Usage

```
## S4 method for signature 'nlme'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,nlmerMod-method

extract *method for* nlmerMod *objects*

Description

extract method for nlmerMod objects created by the nlmer function in the **lme4** package.

Usage

```
## S4 method for signature 'nlmerMod'
extract(
  model,
  method = c("naive", "profile", "boot", "Wald"),
  level = 0.95,
  nsim = 1000,
  include.aic = TRUE,
  include.bic = TRUE,
  include.dic = FALSE,
  include.deviance = FALSE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.groups = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
method	The method used to compute confidence intervals or p-values. The default value "naive" computes naive p-values while the other methods compute confidence intervals using the confint function. See confint.merMod.
level	Significance or confidence level (1 - alpha) for computing confidence intervals.
nsim	The MCMC sample size or number of bootstrapping replications on the basis of which confidence intervals are computed (only if the method argument does not specify "naive", which is the default behavior). Note: large values may take considerable computing time.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.dic	Report the deviance information criterion (DIC)?
include.deviance	Report the deviance?
include.loglik	Report the log likelihood in the GOF block?

include.nobs	Report the number of observations in the GOF block?
include.groups	Report the number of groups?
include.variance	Report group variances?
...	Arguments to be passed to the fixef function in the **lme4** package.

---

extract,oglmx-method *extract method for* oglmx *objects*

Description

extract method for oglmx objects created by the oglmx function in the **oglmx** package.

Usage

```
## S4 method for signature 'oglmx'
extract(
  model,
  include.aic = TRUE,
  include.iterations = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  include.rsquared = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.iterations	Report the number of iterations?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.rsquared	Report R^2 in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,ols-method *extract method for* ols *objects*

Description

extract method for ols objects created by the ols function in the **rms** package.

Usage

```
## S4 method for signature 'ols'
extract(
  model,
  include.nobs = TRUE,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.fstatistic = FALSE,
  include.lr = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.lr	Report likelihood ratio test?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

extract,pcce-method *extract method for* pcce *objects*

Description

extract method for pcce objects created by the pcce function in the **plm** package.

Usage

```
## S4 method for signature 'pcce'
extract(
  model,
  include.r.squared = TRUE,
  include.sumsquares = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.r.squared	Report the HPY R-squared statistic in the GOF block?
include.sumsquares	Report the total and residual sum of squares in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,pglm-method extract *method for* pglm *objects*

Description

extract method for pglm objects created by the pglm function in the **pglm** package.

Usage

```
## S4 method for signature 'pglm'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?

...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,pgmm-method` *extract method for* `pgmm` *objects*

Description

`extract` method for `pgmm` objects created by the `pgmm` function in the **plm** package.

Usage

```
## S4 method for signature 'pgmm'
extract(
  model,
  include.nobs = TRUE,
  include.sargan = TRUE,
  include.wald = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.sargan	Report the Sargan test?
include.wald	Report the Wald statistic?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,phreg-method` *extract method for* `phreg` *objects*

Description

`extract` method for `phreg` objects created by the `phreg` function in the **eha** package.

Usage

```
## S4 method for signature 'phreg'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.lr = TRUE,
  include.nobs = TRUE,
  include.events = TRUE,
  include.trisk = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.lr	Report likelihood ratio test?
include.nobs	Report the number of observations in the GOF block?
include.events	Report the number of events in the GOF block?
include.trisk	Report the total time at risk (in event-history models)?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,plm-method *extract method for* plm *objects*

Description

extract method for plm objects created by the plm function in the **plm** package.

Usage

```
## S4 method for signature 'plm'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.variance = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.variance	Report group variances?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,pmg-method *extract method for* pmg *objects*

Description

extract method for pmg objects created by the pmg function in the **plm** package.

Usage

```
## S4 method for signature 'pmg'
extract(model, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,poissonirr-method *extract method for* poissonirr *objects*

Description

extract method for poissonirr objects created by the poissonirr function in the **mfx** package.

Usage

```
## S4 method for signature 'poissonirr'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,poissonmfx-method

extract method for poissonmfx *objects*

Description

extract method for poissonmfx objects created by the poissonmfx function in the **mfx** package.

Usage

```
## S4 method for signature 'poissonmfx'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,polr-method *extract method for* polr *objects*

Description

extract method for polr objects created by the polr function in the **MASS** package.

Usage

```
## S4 method for signature 'polr'
extract(
  model,
  include.thresholds = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.thresholds	Report thresholds in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,probitmfx-method

extract *method for* probitmfx *objects*

Description

extract method for probitmfx objects created by the probitmfx function in the **mfx** package.

Usage

```
## S4 method for signature 'probitmfx'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,rem.dyad-method

extract *method for* rem.dyad *objects*

Description

extract method for rem.dyad objects created by the rem.dyad function in the **relevent** package.

Usage

```
## S4 method for signature 'rem.dyad'
extract(
  model,
  include.nvertices = TRUE,
  include.events = TRUE,
  include.aic = TRUE,
  include.aicc = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nvertices	Report the number of vertices in a STERGM?
include.events	Report the number of events in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.aicc	Report AICC in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,rlm-method *extract method for* rlm *objects*

Description

extract method for rlm objects created by the rlm function in the **MASS** package.

Usage

```
## S4 method for signature 'rlm'
extract(model, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,rq-method` `extract` *method for* `rq` *objects*

Description

`extract` method for `rq` objects created by the `rq` function in the **quantreg** package.

Usage

```
## S4 method for signature 'rq'
extract(model, include.nobs = TRUE, include.percentile = TRUE, ...)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.percentile`	Report the percentile (tau)?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

`extract,Sarlm-method` `extract` *method for* `Sarlm` *objects*

Description

`extract` method for `Sarlm` objects created by the `lagsarlm` function in the **spatialreg** package.

Usage

```
## S4 method for signature 'Sarlm'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.aic = TRUE,
  include.lr = TRUE,
  include.wald = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.nobs	Report the number of observations in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.lr	Report likelihood ratio test?
include.wald	Report the Wald statistic?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,sclm-method *extract method for* sclm *objects*

Description

extract method for sclm objects created by the clm function in the **ordinal** package.

Usage

```
## S4 method for signature 'sclm'
extract(
  model,
  include.thresholds = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.thresholds	Report thresholds in the GOF block?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,selection-method`

`extract` *method for* `selection` *objects*

Description

`extract` method for `selection` objects created by the `selection` function in the **sampleSelection** package.

Usage

```
## S4 method for signature 'selection'
extract(
  model,
  prefix = TRUE,
  include.selection = TRUE,
  include.outcome = TRUE,
  include.errors = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`prefix`	Include prefix before the label of the coefficient in order to identify the current model component?
`include.selection`	Report the selection component of a sample selection model?
`include.outcome`	Report the outcome component of a sample selection model?
`include.errors`	Report the error terms of a sample selection model?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.rsquared`	Report R^2 in the GOF block?
`include.adjrs`	Report adjusted R^2 in the GOF block?
`include.nobs`	Report the number of observations in the GOF block? block?

...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,sienaFit-method`

`extract` *method for* `sienaFit` *objects*

Description

`extract` method for `sienaFit` objects created by the `siena07` function in the **RSiena** package.

Usage

```
## S4 method for signature 'sienaFit'
extract(model, include.iterations = TRUE, ...)
```

Arguments

model	A statistical model object.
include.iterations	Report the number of iterations?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,simex-method` `extract` *method for* `simex` *objects*

Description

`extract` method for `simex` objects created by the `simex` function in the **simex** package.

Usage

```
## S4 method for signature 'simex'
extract(model, jackknife = TRUE, include.nobs = TRUE, ...)
```

Arguments

model	A statistical model object.
jackknife	Use Jackknife variance instead of asymptotic variance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

`extract,speedglm-method`

`extract` *method for* `speedglm` *objects*

Description

`extract` method for `speedglm` objects created by the `speedglm` function in the **speedglm** package.

Usage

```
## S4 method for signature 'speedglm'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.nobs`	Report the number of observations in the GOF block?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

`extract,speedlm-method`

`extract` *method for* `speedlm` *objects*

Description

`extract` method for `speedlm` objects created by the `speedlm` function in the **speedglm** package.

Usage

```
## S4 method for signature 'speedlm'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,stergm-method extract *method for* stergm *objects*

Description

extract method for stergm objects created by the stergm function in the **tergm** package.

Usage

```
## S4 method for signature 'stergm'
extract(
  model,
  beside = FALSE,
  include.formation = TRUE,
  include.dissolution = TRUE,
  include.nvertices = TRUE,
  include.aic = FALSE,
  include.bic = FALSE,
  include.loglik = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
beside	Arrange the model terms below each other or beside each other? In a stergm model, the formation and dissolution coefficients can be arranged in two columns of the table.
include.formation	Report the coefficients for the formation process in a STERGM?
include.dissolution	Report the coefficients for the dissolution process in a STERGM?
include.nvertices	Report the number of vertices in a STERGM?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,summary.lm-method

extract method for summary.lm objects

Description

extract method for summary.lm objects created by the summary method for lm objects, defined in the **stats** package (see summary.lm).

Usage

```
## S4 method for signature 'summary.lm'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  include.fstatistic = FALSE,
  include.rmse = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?

include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
include.rmse	Report the root mean square error (RMSE; = residual standard deviation) in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

---

extract,survreg-method

extract *method for* survreg *objects*

Description

extract method for survreg objects created by the survreg function in the **survival** package.

Usage

```
## S4 method for signature 'survreg'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,survreg.penal-method

extract *method for* survreg.penal *objects*

Description

extract method for survreg.penal objects created by the survreg function in the **survival** package.

Usage

```
## S4 method for signature 'survreg.penal'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

extract,svyglm-method extract *method for* svyglm *objects*

Description

extract method for svyglm objects created by the svyglm function in the **survey** package.

Usage

```
## S4 method for signature 'svyglm'
extract(
  model,
  include.aic = FALSE,
  include.bic = FALSE,
  include.loglik = FALSE,
  include.deviance = TRUE,
  include.dispersion = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.dispersion	Report the dispersion parameter?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,systemfit-method

extract *method for* systemfit *objects*

Description

extract method for systemfit objects created by the systemfit function in the **systemfit** package.

Usage

```
## S4 method for signature 'systemfit'
extract(
  model,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.nobs = TRUE,
  beside = FALSE,
```

```
  include.suffix = FALSE,
  ...
)
```

Arguments

model	A statistical model object.
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.nobs	Report the number of observations in the GOF block?
beside	Arrange the model terms below each other or beside each other, in separate columns?
include.suffix	Report the name of the current model in parentheses after each model term (instead of before the model term)?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

extract,texreg-method *extract method for texreg objects*

Description

extract method for texreg objects created by the extract function in the **texreg** package.

Usage

```
## S4 method for signature 'texreg'
extract(model, ...)
```

Arguments

model	A statistical model object.
...	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,tobit-method` `extract` *method for* `tobit` *objects*

Description

`extract` method for `tobit` objects created by the `tobit` function in the **AER** package.

Usage

```
## S4 method for signature 'tobit'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = FALSE,
  include.censnobs = TRUE,
  include.wald = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.deviance`	Report the deviance?
`include.nobs`	Report the number of observations in the GOF block?
`include.censnobs`	Report the total, right-censored, left-censored, and uncensored number of observations?
`include.wald`	Report the Wald statistic?
`...`	Custom parameters, which are handed over to subroutines, in this case to the `summary` method for the object.

`extract,truncreg-method`
`extract` *method for* `truncreg` *objects*

Description

`extract` method for `truncreg` objects created by the `truncreg` function in the **truncreg** package.

Usage

```
## S4 method for signature 'truncreg'
extract(
  model,
  include.nobs = TRUE,
  include.loglik = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

`model`	A statistical model object.
`include.nobs`	Report the number of observations in the GOF block?
`include.loglik`	Report the log likelihood in the GOF block?
`include.aic`	Report Akaike's Information Criterion (AIC) in the GOF block?
`include.bic`	Report the Bayesian Information Criterion (BIC) in the GOF block?
`...`	Custom parameters, which are handed over to subroutines. Currently not in use.

`extract,vglm-method` `extract` *method for* `vglm` *objects*

Description

`extract` method for `vglm` objects created by the `vglm` function in the **VGAM** package.

Usage

```
## S4 method for signature 'vglm'
extract(
  model,
  include.loglik = TRUE,
  include.df = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.loglik	Report the log likelihood in the GOF block?
include.df	Report the degrees of freedom?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Christoph Riedl <c.riedl@neu.edu>

---

extract,weibreg-method

extract method for weibreg objects

Description

extract method for weibreg objects created by the weibreg function in the **eha** package.

Usage

```
## S4 method for signature 'weibreg'
extract(
  model,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.lr = TRUE,
  include.nobs = TRUE,
  include.events = TRUE,
  include.trisk = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.lr	Report likelihood ratio test?
include.nobs	Report the number of observations in the GOF block?
include.events	Report the number of events in the GOF block?
include.trisk	Report the total time at risk (in event-history models)?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

extract,wls-method *extract method for* wls *objects*

Description

extract method for wls objects created by the wls function in the **metaSEM** package.

Usage

```
## S4 method for signature 'wls'
extract(
  model,
  include.statistics = TRUE,
  include.nobs = TRUE,
  include.aic = TRUE,
  include.bic = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
include.statistics	Report RMSEA and other GOF statistics?
include.nobs	Report the number of observations in the GOF block?
include.aic	Report AIC?
include.bic	Report BIC?
...	Custom parameters, which are handed over to subroutines. Currently not in use.

Author(s)

Christoph Riedl <c.riedl@neu.edu>

Philip Leifeld

extract,zelig-method *extract method for* zelig *objects*

Description

extract method for zelig objects created by the zelig function in the **Zelig** package (version < 5.0).

extract method for Zelig objects created by the zelig function in the **Zelig** package (version >= 5.0).

Usage

```
## S4 method for signature 'zelig'
extract(
  model,
  include.aic = TRUE,
  include.bic = TRUE,
  include.loglik = TRUE,
  include.deviance = TRUE,
  include.nobs = TRUE,
  include.rsquared = TRUE,
  include.adjrs = TRUE,
  include.fstatistic = TRUE,
  ...
)

## S4 method for signature 'Zelig'
extract(model, include.nobs = TRUE, include.nimp = TRUE, ...)
```

Arguments

model	A statistical model object.
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.bic	Report the Bayesian Information Criterion (BIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.deviance	Report the deviance?
include.nobs	Report the number of observations in the GOF block?
include.rsquared	Report R^2 in the GOF block?
include.adjrs	Report adjusted R^2 in the GOF block?
include.fstatistic	Report the F-statistic in the GOF block?
...	Custom parameters, which are handed over to subroutines. Currently not in use.
include.nimp	Report the number of multiple imputations (in Zelig models with imputed data)?

---

extract,zeroinfl-method

extract method for zeroinfl objects

Description

extract method for zeroinfl objects created by the zeroinfl function in the **pscl** package.

Usage

```
## S4 method for signature 'zeroinfl'
extract(
  model,
  beside = FALSE,
  include.count = TRUE,
  include.zero = TRUE,
  include.aic = TRUE,
  include.loglik = TRUE,
  include.nobs = TRUE,
  ...
)
```

Arguments

model	A statistical model object.
beside	Arrange the model terms below each other or beside each other? The binary model parameters and the count parameters can be displayed in two separate columns of the table.
include.count	Report the count parameters in the coefficients block (before the binary part for the zeros)?
include.zero	Should the binary part of the model be included in the coefficients block (after the count parameters)?
include.aic	Report Akaike's Information Criterion (AIC) in the GOF block?
include.loglik	Report the log likelihood in the GOF block?
include.nobs	Report the number of observations in the GOF block?
...	Custom parameters, which are handed over to subroutines, in this case to the summary method for the object.

---

htmlreg *Convert regression output to a HTML table*

Description

Conversion of R regression output to a HTML table.

Usage

```
htmlreg(
  l,
  file = NULL,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
  custom.header = NULL,
```

```
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  custom.note = NULL,
  digits = 2,
  leading.zero = TRUE,
  star.symbol = "&#42;",
  symbol = "&middot;",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  bold = 0,
  center = TRUE,
  caption = "Statistical models",
  caption.above = FALSE,
  inline.css = TRUE,
  doctype = FALSE,
  html.tag = FALSE,
  head.tag = FALSE,
  body.tag = FALSE,
  indentation = "",
  margin = 10,
  padding = 5,
  color = "#000000",
  outer.rules = 2,
  inner.rules = 1,
  ...
)
```

Arguments

`l`	A statistical model or a list of statistical models. Lists of models can be specified as `l = list(model.1, model.2, ...)`. Different object types can also be mixed.
`file`	Using this argument, the resulting table is written to a file rather than to the R

prompt. The file name can be specified as a character string. Writing a table to a file can be useful for working with MS Office or LibreOffice. For example, using the htmlreg function, an HTML table can be written to a file with the extension .doc and opened with MS Word. The table can then be simply copied into any Word document, retaining the formatting of the table. Note that LibreOffice can import only plain HTML; CSS decorations are not supported; the resulting tables do not retain the full formatting in LibreOffice.

single.row — By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If single.row = TRUE is activated, however, both coefficient and standard error are placed in a single table cell in the same line.

stars — The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, stars = numeric(0) will not print any stars and will not print any note about significance levels below the table. stars = 0.05 will attach one single star to all coefficients where the p value is below 0.05. stars = c(0.001, 0.01, 0.05, 0.1) will print one, two, or three stars, or a symbol as specified by the symbol argument depending on the p-values.

custom.header — An optional named list of multi-column headers that are placed above the model names. For example, custom.header = list("abc" = 1:3, "ef" = 4:5) will add the label "abc" to the first three models and "ef" to the fourth and fifth model. The column with coefficient names and any custom columns added by the "custom.columns" argument are not counted towards these positions. If booktabs = TRUE, \cmidrule rules are added below the respective labels; otherwise \cline lines are used.

custom.model.names — A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying model.names = c("My name 1", "My name 2") etc. overrides the default behavior.

custom.coef.names — By default, **texreg** uses the coefficient names which are stored in the models. The custom.coef.names argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument custom.coef.names = c("Intercept", "variable 1", "variable 2") will replace their names in this order.

Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model.

See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.

custom.coef.map

The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients.

Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map,

1. coefficients will be presented in order: "x", "y", "z".
2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable".
3. all variables not named "x", "y", or "z" will be omitted from the table.

custom.gof.names

A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows

A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

custom.note

With this argument, a replacement text for the significance note below the table can be provided. If an empty character object is provided (custom.note = ""), the note will be omitted completely. If some character string is provided (e.g., custom.note = "My note"), the significance legend is replaced by My note. The original significance legend can be included by inserting the %stars wildcard. For example, a custom note can be added right after the significance legend by providing custom.note = "%stars. My note.".

If the threeparttable argument is used, any note should be preceded by "\\item", for example "\\item %stars. \\item Second note. \\item Third note.", and it is possible to create line breaks in the formatted table by including "\\\\" and line breaks in the LaTeX code by including "\n", for example "\n\\item %stars.\\\\\n\\item Second line.\n".

digits

Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

leading.zero

Most journals require leading zeros of coefficients and standard errors (for example, 0.35). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, .35). This can be achieved by setting leading.zero = FALSE.

star.symbol

Alternative characters for the significance stars can be specified. This is useful if **knitr** and Markdown are used for HTML report generation. In Markdown,

asterisks or stars are interpreted as special characters, so they have to be escaped. To make a HTML table compatible with Markdown, specify `star.symbol = "&#42;"`. Note that some other modifications are recommended for usage with **knitr** in combination with Markdown or HTML (see the `inline.css`, `doctype`, `html.tag`, `head.tag`, and `body.tag` arguments in the `htmlreg` function).

`symbol` If four threshold values are handed over to the `stars` argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is `"\\cdot"` for the LaTeX dot, `"&middot;"` for the HTML dot, or simply `"."` for the ASCII dot. If the `texreg` function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example `symbol = "\\circ"` for a small circle (note that backslashes must be escaped). If the `htmlreg` function is used, any other HTML character or symbol can be used. For the `screenreg` function, only plain text characters can be used.

`override.coef` Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as `override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.coef = c(0.05, 0.06, 0.07)`.

`override.se` Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: `override.se = c(0.05, 0.06, 0.07)`. Overriding standard errors can be useful for the implementation of robust SEs, for example.

`override.pvalues`
Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

`override.ci.low`
Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.up` argument, the standard errors and p-values as well as the `ci.force` argument are ignored.

`override.ci.up` Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in

the override.ci.low argument, the standard errors and p values as well as the ci.force argument are ignored.

omit.coef — A character string which is used as a regular expression to remove coefficient rows from the table. For example, omit.coef = "group" deletes all coefficient rows from the table where the name of the coefficient contains the character sequence "group". More complex regular expressions can be used to filter out several kinds of model terms, for example omit.coef = "(thresh)|(ranef)" to remove all model terms matching either "thresh" or "ranef". The omit.coef argument is processed after the custom.coef.names argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the extract function.

reorder.coef — Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, reorder.coef = c(3, 2, 1) will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the custom.coef.names and omit.coef arguments should follow the original order.

reorder.gof — Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, reorder.gof = c(3, 2, 1) will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the custom.gof.names and custom.gof.rows arguments should follow the original order, and the reorder.gof argument should contain values for any rows that are added through the custom.gof.rows argument.

ci.force — Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the ci.force argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (ci.force = TRUE for all and ci.force = FALSE for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., ci.force = c(FALSE, TRUE, FALSE)). Confidence intervals are computed using the standard normal distribution (z-values based on the qnorm function). The t-distribution is currently not supported because this would require each extract method to have an additional argument for the degrees of freedom.

ci.force.level — If the ci.force argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, 0.95 is used (i.e., an alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will attach a significance star to coefficients if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, `ci.test = NA` can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`groups` This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: `groups = list("first group" = 1:4, "second group" = 7:8)`.

`custom.columns` An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, `custom.columns = list(type = c("a", "b", "c"), 1:3)` will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to `character` objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

`custom.col.pos` An optional integer vector of positions for the columns given in the `custom.columns` argument. For example, if there are three custom columns, `custom.col.pos = c(1, 3, 3)` will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

`bold` The p-value threshold below which the coefficient shall be formatted in a bold font. For example, `bold = 0.05` will cause all coefficients that are significant at the 95% level to be formatted in bold. Note that this is not compatible with the `dcolumn` or `siunitx` arguments in the `texreg` function. If both `bold` and `dcolumn` or `siunitx` are `TRUE`, `dcolumn` and `siunitx` are switched off, and a warning message appears. Note also that it is advisable to use `stars = FALSE` together with the `bold` argument because having both bolded coefficients and significance stars usually does not make any sense.

`center` Should the table be horizontally aligned at the center of the page?

`caption` Set the caption of the table.

`caption.above` Should the caption of the table be placed above the table? By default, it is placed below the table.

`inline.css` Should the CSS stylesheets be embedded directly in the code of the table (`inline.css = TRUE`), or should the CSS stylesheets be enclosed in the <head> tag, that is,

separated from the table code (`inline.css = FALSE`)? Having inline CSS code makes the code of the table more complex, but sometimes it may be helpful when only the table shall be printed, without the head of the HTML file (for example when the table is embedded in a **knitr** report). As a rule of thumb: use inline CSS if the table is not saved to a file.

`doctype` Should the first line of the HTML code contain the DOCTYPE definition? If `TRUE`, the HTML 4 TRANSITIONAL version is used. If `FALSE`, no DOCTYPE will be included. Omitting the DOCTYPE can be helpful when the **knitr** package is used to generate HTML code because **knitr** requires only the plain table, not the whole HTML document including the document type declaration. Including the DOCTYPE can be helpful when the code is saved to a file, for example as an MS Word document.

`html.tag` Should the table code (and possibly the <body> and <head> tags) be enclosed in an <html> tag? Suppressing this tag is recommended when **knitr** is used for dynamic HTML or Markdown report generation. Including this tag is recommended when the code is saved to a file, for example as an MS Word document.

`head.tag` Should the <head> tag (including CSS definitions and title/caption) be included in the HTML code? Suppressing this tag is recommended when **knitr** is used for dynamic HTML or Markdown report generation. Including this tag is recommended when the code is saved to a file, for example as an MS Word document.

`body.tag` Should the table code be enclosed in a <body> HTML tag? Suppressing this tag is recommended when **knitr** is used for dynamic HTML or Markdown report generation. Including this tag is recommended when the code is saved to a file, for example as an MS Word document.

`indentation` Characters used for indentation of the HTML code. By default, `indentation = ""` uses no indentation. Any number of spaces or characters can be used instead. For example, `indentation = " "` uses two spaces of (additional) indentation for each subelement.

`margin` The margin around the table in pixels. This determines how much space there is around the table. To remove all space around the table, set `table.margin = 0`.

`padding` The space on the left and right of each table cell in pixels.

`color` The color of the table, including text and rules or lines. This can be provided as a hex RGB value or as a color string that is valid in HTML (e.g., `"black"`).

`outer.rules` The line width at the top and bottom of the table in pixels. Can be `outer.rules = 0` to omit outer lines.

`inner.rules` The horizontal line width before and after the coefficient block of the table in pixels. Can be `outer.rules = 0` to omit inner lines.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `htmlreg` function creates HTML code. Tables in HTML format can be saved with a ".html" extension and displayed in a web browser. Alternatively, they can be saved with a ".doc" extension

and opened in MS Word for inclusion in office documents. htmlreg also works with **knitr** and HTML or Markdown. Note that the inline.css, doctype, html.tag, head.tag, body.tag, and star.symbol arguments must be adjusted for the different purposes (see the description of the arguments).

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

texreg-package extract

Other texreg: huxtablereg(), knitreg(), matrixreg(), plotreg(), screenreg(), texreg, wordreg()

Examples

```
library("nlme")
model.1 <- lme(distance ~ age, data = Orthodont, random = ~ 1)
model.2 <- lme(distance ~ age + Sex, data = Orthodont, random = ~ 1)
htmlreg(list(model.1, model.2),
        file = "texreg.doc",
        inline.css = FALSE,
        doctype = TRUE,
        html.tag = TRUE,
        head.tag = TRUE,
        body.tag = TRUE)
unlink("texreg.doc")
```

---

huxtablereg *Create a huxtable object from multiple statistical models*

Description

Create a huxtable object from multiple statistical models.

Usage

```
huxtablereg(
  l,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
```

```
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  digits = 2,
  leading.zero = TRUE,
  star.symbol = "*",
  symbol = "+",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  ...
)
```

Arguments

`l`	A statistical model or a list of statistical models. Lists of models can be specified as `l = list(model.1, model.2, ...)`. Different object types can also be mixed.
`single.row`	By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If `single.row = TRUE` is activated, however, both coefficient and standard error are placed in a single table cell in the same line.
`stars`	The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, `stars = numeric(0)` will not print any stars and will not print any note about significance levels below the table. `stars = 0.05` will attach one single star to all coefficients where the p value is below 0.05. `stars = c(0.001, 0.01, 0.05, 0.1)` will print one, two, or three stars, or a symbol as specified by the `symbol` argument depending on the p-values.
`custom.model.names`	A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying `model.names = c("My name 1", "My name 2")` etc. overrides the default behavior.

custom.coef.names

By default, **texreg** uses the coefficient names which are stored in the models. The custom.coef.names argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument custom.coef.names = c("Intercept", "variable 1", "variable 2") will replace their names in this order.

Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model.

See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.

custom.coef.map

The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients.

Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map,

1. coefficients will be presented in order: "x", "y", "z".
2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable".
3. all variables not named "x", "y", or "z" will be omitted from the table.

custom.gof.names

A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows

A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

digits

Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

`leading.zero` Most journals require leading zeros of coefficients and standard errors (for example, `0.35`). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, `.35`). This can be achieved by setting `leading.zero = FALSE`.

`star.symbol` Alternative characters for the significance stars can be specified. This is useful if **knitr** and Markdown are used for HTML report generation. In Markdown, asterisks or stars are interpreted as special characters, so they have to be escaped. To make a HTML table compatible with Markdown, specify `star.symbol = "&#42;"`. Note that some other modifications are recommended for usage with **knitr** in combination with Markdown or HTML (see the `inline.css`, `doctype`, `html.tag`, `head.tag`, and `body.tag` arguments in the `htmlreg` function).

`symbol` If four threshold values are handed over to the `stars` argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is `"\\cdot"` for the LaTeX dot, `"&middot;"` for the HTML dot, or simply `"."` for the ASCII dot. If the `texreg` function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example `symbol = "\\circ"` for a small circle (note that backslashes must be escaped). If the `htmlreg` function is used, any other HTML character or symbol can be used. For the `screenreg` function, only plain text characters can be used.

`override.coef` Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as `override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.coef = c(0.05, 0.06, 0.07)`.

`override.se` Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: `override.se = c(0.05, 0.06, 0.07)`. Overriding standard errors can be useful for the implementation of robust SEs, for example.

`override.pvalues` Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

`override.ci.low` Set custom lower confidence interval bounds. This works like the other override

arguments, with one exception: if confidence intervals are provided here and in the override.ci.up argument, the standard errors and p-values as well as the ci.force argument are ignored.

override.ci.up Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the override.ci.low argument, the standard errors and p values as well as the ci.force argument are ignored.

omit.coef A character string which is used as a regular expression to remove coefficient rows from the table. For example, omit.coef = "group" deletes all coefficient rows from the table where the name of the coefficient contains the character sequence "group". More complex regular expressions can be used to filter out several kinds of model terms, for example omit.coef = "(thresh)|(ranef)" to remove all model terms matching either "thresh" or "ranef". The omit.coef argument is processed after the custom.coef.names argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the extract function.

reorder.coef Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, reorder.coef = c(3, 2, 1) will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the custom.coef.names and omit.coef arguments should follow the original order.

reorder.gof Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, reorder.gof = c(3, 2, 1) will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the custom.gof.names and custom.gof.rows arguments should follow the original order, and the reorder.gof argument should contain values for any rows that are added through the custom.gof.rows argument.

ci.force Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the ci.force argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (ci.force = TRUE for all and ci.force = FALSE for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., ci.force = c(FALSE, TRUE, FALSE)). Confidence intervals are computed using the standard normal distribution (z-values based on the qnorm function). The t-distribution is currently not supported because this would require each extract method to have an additional argument for the degrees of freedom.

`ci.force.level` If the `ci.force` argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, `0.95` is used (i.e., an alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will attach a significance star to coefficients if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, `ci.test = NA` can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`groups` This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: `groups = list("first group" = 1:4, "second group" = 7:8)`.

`custom.columns` An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, `custom.columns = list(type = c("a", "b", "c"), 1:3)` will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to `character` objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

`custom.col.pos` An optional integer vector of positions for the columns given in the `custom.columns` argument. For example, if there are three custom columns, `custom.col.pos = c(1, 3, 3)` will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `huxtablereg` function creates a `huxtable` object using the **huxtable** package. This allows output to HTML, LaTeX, Word, Excel, Powerpoint, and RTF. The object can be formatted using **huxtable** package functions. See also `huxreg`.

Author(s)

David Hugh-Jones

See Also

texreg-package extract

Other texreg: htmlreg(), knitreg(), matrixreg(), plotreg(), screenreg(), texreg, wordreg()

Examples

```
library("nlme")
model.1 <- lme(distance ~ age, data = Orthodont, random = ~ 1)
model.2 <- lme(distance ~ age + Sex, data = Orthodont, random = ~ 1)
if (requireNamespace("huxtable")) {
  hr <- huxtablereg(list(model.1, model.2))
  hr <- huxtable::set_bottom_border(hr, 1, -1, 0.4)
  hr <- huxtable::set_bold(hr, 1:nrow(hr), 1, TRUE)
  hr <- huxtable::set_bold(hr, 1, -1, TRUE)
  hr <- huxtable::set_all_borders(hr, 4, 2, 0.4)
  hr <- huxtable::set_all_border_colors(hr, 4, 2, "red")
  hr
  ## Not run:
  huxtable::quick_pdf(hr)
  huxtable::quick_docx(hr)
  # or use in a knitr document

## End(Not run)
}
```

---

knitreg *Flexibly choose the right table output format for use with* **knitr**

Description

Flexibly choose the right table output format for use with **knitr**.

Usage

```
knitreg(...)
```

Arguments

...	Arguments to be handed over to the texreg, htmlreg, screenreg, or matrixreg function. See the respective help page for details.

Details

This function automatically selects the right function (texreg, screenreg, htmlreg, or matrixreg) with the right set of arguments for use with the **knitr** package, for example in RStudio. The advantage of using this function with **knitr** is that the user does not need to replace the texreg, htmlreg etc. function call in the document when a different output format is selected.

knitreg works with...

- R HTML documents (.Rhtml extension)
- R Sweave documents (.Rnw extension) for PDF output via LaTeX, rendered using...
  - the **knitr** package
  - the **Sweave** package
- R Markdown documents (.Rmd extension), rendered as...
  - HTML documents
  - PDF documents
  - Word documents
  - Powerpoint presentations
  - Presentations (.Rpres extension, not .Rmd)
- R Notebooks, including preview

If Markdown and HTML rendering are selected, htmlreg arguments doctype = FALSE and star.symbol = "*" are set to enable compatibility with Markdown. With R HTML documents (but not Markdown) or presentations (.Rpres extension), only doctype = FALSE is set.

For PDF/LaTeX documents, the texreg argument use.packages = FALSE is set to suppress any package loading instructions in the preamble. The user must load any packages manually in the preamble of the document.

The **knitr** and **rmarkdown** packages must be installed for this function to work.

Value

A table as a character string in the respective output format.

Author(s)

Philip Leifeld, with input from David Hugh-Jones

See Also

texreg-package extract

Other texreg: htmlreg(), huxtablereg(), matrixreg(), plotreg(), screenreg(), texreg, wordreg()

Examples

```
require("nlme")
model.1 <- lme(distance ~ age, data = Orthodont, random = ~ 1)
model.2 <- lme(distance ~ age + Sex, data = Orthodont, random = ~ 1)
knitreg(list(model.1, model.2), center = FALSE, caption = "", table = FALSE)
```

matrixreg *Convert regression output to a* character *matrix*

Description

Conversion of R regression output to a character matrix.

Usage

```
matrixreg(
  l,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  digits = 2,
  leading.zero = TRUE,
  star.symbol = "*",
  symbol = ".",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  bold = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  dcolumn = TRUE,
  siunitx = FALSE,
  output.type = c("ascii", "latex", "html"),
  include.attributes = FALSE,
  trim = FALSE,
  ...
)
```

Arguments

`l` A statistical model or a list of statistical models. Lists of models can be specified as `l = list(model.1, model.2, ...)`. Different object types can also be mixed.

`single.row` By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If `single.row = TRUE` is activated, however, both coefficient and standard error are placed in a single table cell in the same line.

`stars` The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, `stars = numeric(0)` will not print any stars and will not print any note about significance levels below the table. `stars = 0.05` will attach one single star to all coefficients where the p value is below 0.05. `stars = c(0.001, 0.01, 0.05, 0.1)` will print one, two, or three stars, or a symbol as specified by the `symbol` argument depending on the p-values.

`custom.model.names`

A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying `model.names = c("My name 1", "My name 2")` etc. overrides the default behavior.

`custom.coef.names`

By default, **texreg** uses the coefficient names which are stored in the models. The `custom.coef.names` argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument `custom.coef.names = c("Intercept", "variable 1", "variable 2")` will replace their names in this order.

Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

Where the argument contains an `NA` value, the original name of the coefficient is kept. For example, `custom.coef.names = c(NA, "age", NA)` will only replace the second coefficient name and leave the first and third name as they are in the original model.

See also `custom.coef.map` for an easier and more comprehensive way to rename, omit, and reorder coefficients.

`custom.coef.map`

The `custom.coef.map` argument can be used to select, omit, rename, and reorder coefficients.

Users must supply a named list of this form: `list("x" = "First variable", "y" = NA, "z" = "Third variable")`. With that particular example of `custom.coef.map`,

1. coefficients will be presented in order: `"x"`, `"y"`, `"z"`.
2. variable `"x"` will appear as `"First variable"`, variable `"y"` will appear as `"y"`, and variable `"z"` will appear as "Third variable".
3. all variables not named `"x"`, `"y"`, or `"z"` will be omitted from the table.

custom.gof.names
: A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows
: A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

digits
: Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

leading.zero
: Most journals require leading zeros of coefficients and standard errors (for example, 0.35). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, .35). This can be achieved by setting leading.zero = FALSE.

star.symbol
: Alternative characters for the significance stars can be specified. This is useful if **knitr** and Markdown are used for HTML report generation. In Markdown, asterisks or stars are interpreted as special characters, so they have to be escaped. To make a HTML table compatible with Markdown, specify star.symbol = "*". Note that some other modifications are recommended for usage with **knitr** in combination with Markdown or HTML (see the inline.css, doctype, html.tag, head.tag, and body.tag arguments in the htmlreg function).

symbol
: If four threshold values are handed over to the stars argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is "\\cdot" for the LaTeX dot, "·" for the HTML dot, or simply "." for the ASCII dot. If the texreg function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example symbol = "\\circ" for a small circle (note that backslashes must be escaped). If the htmlreg function is used, any other HTML character or symbol can be used. For the screenreg function, only plain text characters can be used.

override.coef
: Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: override.coef = c(0.05, 0.06, 0.07).

override.se Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: `override.se = c(0.05, 0.06, 0.07)`. Overriding standard errors can be useful for the implementation of robust SEs, for example.

override.pvalues
Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

override.ci.low
Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.up` argument, the standard errors and p-values as well as the `ci.force` argument are ignored.

override.ci.up Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.low` argument, the standard errors and p values as well as the `ci.force` argument are ignored.

omit.coef A character string which is used as a regular expression to remove coefficient rows from the table. For example, `omit.coef = "group"` deletes all coefficient rows from the table where the name of the coefficient contains the character sequence `"group"`. More complex regular expressions can be used to filter out several kinds of model terms, for example `omit.coef = "(thresh)|(ranef)"` to remove all model terms matching either `"thresh"` or `"ranef"`. The `omit.coef` argument is processed after the `custom.coef.names` argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the `extract` function.

reorder.coef Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, `reorder.coef = c(3, 2, 1)` will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the `custom.coef.names` and `omit.coef` arguments should follow the original order.

`reorder.gof` Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, `reorder.gof = c(3, 2, 1)` will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the `custom.gof.names` and `custom.gof.rows` arguments should follow the original order, and the `reorder.gof` argument should contain values for any rows that are added through the `custom.gof.rows` argument.

`ci.force` Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the `ci.force` argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (`ci.force = TRUE` for all and `ci.force = FALSE` for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., `ci.force = c(FALSE, TRUE, FALSE)`). Confidence intervals are computed using the standard normal distribution (z-values based on the `qnorm` function). The t-distribution is currently not supported because this would require each `extract` method to have an additional argument for the degrees of freedom.

`ci.force.level` If the `ci.force` argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, `0.95` is used (i.e., an alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will attach a significance star to coefficients if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, `ci.test = NA` can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`bold` The p-value threshold below which the coefficient shall be formatted in a bold font. For example, `bold = 0.05` will cause all coefficients that are significant at the 95% level to be formatted in bold. Note that this is not compatible with the `dcolumn` or `siunitx` arguments in the `texreg` function. If both `bold` and `dcolumn` or `siunitx` are `TRUE`, `dcolumn` and `siunitx` are switched off, and a warning message appears. Note also that it is advisable to use `stars = FALSE` together with the `bold` argument because having both bolded coefficients and significance stars usually does not make any sense.

`groups` This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: `groups = list("first group" = 1:4, "second group" = 7:8)`.

`custom.columns` An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, `custom.columns = list(type = c("a", "b", "c"), 1:3)` will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to `character` objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

`custom.col.pos` An optional integer vector of positions for the columns given in the `custom.columns` argument. For example, if there are three custom columns, `custom.col.pos = c(1, 3, 3)` will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

`dcolumn` Use the **dcolumn** LaTeX package to get a nice alignment of the coefficients at the decimal separator (recommended for use with the `texreg` function). Note that only one of the three arguments `bold`, `dcolumn`, and `siunitx` can be used at a time as they are mutually incompatible.

`siunitx` Use the **siunitx** LaTeX package to get a nice alignment of the coefficients at the decimal separator (recommended for use with the `texreg` function). Note that only one of the three arguments `bold`, `dcolumn`, and `siunitx` can be used at a time as they are mutually incompatible.

`output.type` Which type of output should be produced? Valid values are `"ascii"` (for plain text tables), `"latex"` (for LaTeX markup) in the resulting table), and `"html"` (for HTML markup in the resulting table).

`include.attributes` Add some attributes to the return object for confidence intervals, coefficient names, GOF statistic names, and model names? These are used by `texreg` and other functions for table construction.

`trim` Trim leading and trailing white space in the table cells? If `FALSE`, the values in each column will be aligned at the decimal point, and spaces are used to make all cells equally long. This is useful for on-screen output.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `matrixreg` function creates a `character` matrix with the row names for the coefficients and goodness-of-fit statistics in the first column. The function is used under the hood by other functions like `screenreg` or `texreg` but can also be called directly.

Value

A `character` matrix with the coefficients and goodness-of-fit statistics and their column names.

Author(s)

Philip Leifeld

See Also

texreg-package extract texreg

Other texreg: htmlreg(), huxtablereg(), knitreg(), plotreg(), screenreg(), texreg, wordreg()

---

plotreg *Create coefficient plots from statistical model output using* **ggplot2**.

Description

Create coefficient plots of R regression output using **ggplot2**.

Usage

```
plotreg(
  l,
  file = NULL,
  custom.model.names = NULL,
  custom.title = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.note = NULL,
  override.coef = 0,
  override.se = 0,
  override.pval = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  override.pvalues = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  ci.level = 0.95,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  type = "facet",
  theme = NULL,
  signif.light = "#FBC9B9",
  signif.medium = "#F7523A",
  signif.dark = "#BD0017",
  insignif.light = "#C5DBE9",
  insignif.medium = "#5A9ECC",
  insignif.dark = "#1C5BA6",
  ...
)
```

Arguments

l	A statistical model or a list of statistical models. Lists of models can be specified as l = list(model.1, model.2, ...). Different object types can also be mixed.
file	Using this argument, the resulting table is written to a file rather than to the R prompt. The file name can be specified as a character string. Writing a table to a file can be useful for working with MS Office or LibreOffice. For example, using the htmlreg function, an HTML table can be written to a file with the extension .doc and opened with MS Word. The table can then be simply copied into any Word document, retaining the formatting of the table. Note that LibreOffice can import only plain HTML; CSS decorations are not supported; the resulting tables do not retain the full formatting in LibreOffice.
custom.model.names	A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying model.names = c("My name 1", "My name 2") etc. overrides the default behavior.
custom.title	With this argument, a replacement text for the ggtitle, which provides a title above the diagram, can be provided. If an empty character object is provided (custom.title = ""), the title will be omitted completely.
custom.coef.names	By default, **texreg** uses the coefficient names which are stored in the models. The custom.coef.names argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument custom.coef.names = c("Intercept", "variable 1", "variable 2") will replace their names in this order. Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column. Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model. See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.
custom.coef.map	The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients. Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map, 1. coefficients will be presented in order: "x", "y", "z". 2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable". 3. all variables not named "x", "y", or "z" will be omitted from the table.

`custom.note` With this argument, a replacement text for the significance note below the table can be provided. If an empty `character` object is provided (`custom.note = ""`), the note will be omitted completely. If some character string is provided (e.g., `custom.note = "My note"`), the significance legend is replaced by `My note`. The original significance legend can be included by inserting the `%stars` wildcard. For example, a custom note can be added right after the significance legend by providing `custom.note = "%stars. My note."`.

If the `threeparttable` argument is used, any note should be preceded by `"\\item"`, for example `"\\item %stars. \\item Second note. \\item Third note."`, and it is possible to create line breaks in the formatted table by including `"\\\\"` and line breaks in the LaTeX code by including `"\n"`, for example `"\n\\item %stars.\\\\\n\\item Second line.\n"`.

`override.coef` Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as `override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.coef = c(0.05, 0.06, 0.07)`.

`override.se` Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: `override.se = c(0.05, 0.06, 0.07)`. Overriding standard errors can be useful for the implementation of robust SEs, for example.

`override.pval` Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

`override.ci.low`

Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.up` argument, the standard errors and p-values as well as the `ci.force` argument are ignored.

`override.ci.up` Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.low` argument, the standard errors and p values as well as the `ci.force` argument are ignored.

override.pvalues
: Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

omit.coef
: A character string which is used as a regular expression to remove coefficient rows from the table. For example, `omit.coef = "group"` deletes all coefficient rows from the table where the name of the coefficient contains the character sequence `"group"`. More complex regular expressions can be used to filter out several kinds of model terms, for example `omit.coef = "(thresh)|(ranef)"` to remove all model terms matching either `"thresh"` or `"ranef"`. The `omit.coef` argument is processed after the `custom.coef.names` argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the `extract` function.

reorder.coef
: Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, `reorder.coef = c(3, 2, 1)` will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the `custom.coef.names` and `omit.coef` arguments should follow the original order.

ci.level
: If standard errors are converted to confidence intervals (because a model does not natively support CIs), what confidence level should be used for the outer confidence interval? By default, `0.95` is used (i.e., an alpha value of 0.05).

ci.force
: Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the `ci.force` argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (`ci.force = TRUE` for all and `ci.force = FALSE` for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., `ci.force = c(FALSE, TRUE, FALSE)`). Confidence intervals are computed using the standard normal distribution (z-values based on the `qnorm` function). The t-distribution is currently not supported because this would require each `extract` method to have an additional argument for the degrees of freedom.

ci.force.level
: If the `ci.force` argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, `0.95` is used (i.e., an

alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will display coefficients with a round circle and the red color if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. It is possible to provide a single value for all models or a vector with a separate value for each model (even if it would make the plot hard to read). The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`type` The default option is `type = "facet"`. If only one model is specified, it will print one forest plot applied to point estimates and confidence intervals. If more than one model is specified, it will print as many facets as the number of models in a column of plots. Alternatively, if `type = "forest"` is specified, coefficients from one or more models will be grouped together and displayed as a single forest plot.

`theme` The `theme` argument can be used to customize the appearance of the plot. The default theme is `theme_bw`. It can be replaced by any other **ggplot2** theme. See `ggtheme` for details.

`signif.light` Color of outer confidence intervals for significant model terms.

`signif.medium` Color of inner confidence intervals for significant model terms.

`signif.dark` Color of point estimates and labels for significant model terms.

`insignif.light` Color of outer confidence intervals for insignificant model terms.

`insignif.medium` Color of inner confidence intervals for insignificant model terms.

`insignif.dark` Color of point estimates and labels for insignificant model terms.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `plotreg` function produces coefficient plots (i.e., forest plots applied to point estimates and confidence intervals) and works much like the `screenreg`, `texreg`, `htmlreg`, `matrixreg` and `wordreg` functions. It accepts a single model or multiple statistical models as input and internally extracts the relevant data from the models. If confidence intervals are not defined in the extract method of a statistical model (see extract), the default standard errors are converted to confidence intervals. Most of the arguments work like in the `screenreg`, `texreg`, and `htmlreg` `matrixreg`, and `wordreg` functions. It is possible to display the plots in two ways: using the `type = "facet"` argument, one forest plot applied to point estimates and confidence intervals will be visualized in case there is only one model. If there is more than one model, each one will be plotted next to the other as a separate facet; using the `type = "forest"` argument, coefficients from one or more models will be grouped together and displayed as a single forest plot.

Value

Coefficient plot as a **ggplot2** gg object if `file = FALSE`. `NULL` otherwise.

Author(s)

Claudia Zucca, Philip Leifeld

See Also

texreg-package extract texreg matrixreg

Other texreg: htmlreg(), huxtablereg(), knitreg(), matrixreg(), screenreg(), texreg, wordreg()

Examples

```
## Not run:
# example from the 'lm' help file:
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
lm.D90 <- lm(weight ~ group - 1)
plotreg(lm.D9) # plot model output as a diagram

# customize theme and title and save as a PDF file.
plotreg(lm.D9,
        theme = theme_dark(),
        ggtitle = "my title",
        file = "myplot.pdf")
unlink("myplot.pdf")

# group coefficients from multiple models
plotreg(list(lm.D9, lm.D90), type = "forest")

## End(Not run)
```

---

praise *Publish praise about* **texreg**

Description

Publish praise about **texreg** to help the developers demonstrate impact.

Usage

```
praise(
  academic_user,
  organization,
  name = NULL,
  general_praise = NULL,
```

```
  increase_productivity = NULL,
  increase_quality = NULL,
  start_using = NULL,
  where_learn = NULL,
  contact_details = NULL,
  models = NULL,
  num_users = NULL,
  return.response = FALSE
)

praise_interactive()
```

Arguments

academic_user	Should be TRUE if you are at a university or public research institute. Should be FALSE if you are a private user, for example you are using **texreg** in your work for a firm, NGO, association, government department, as an individual user etc. We particularly need praise from non-academic users to demonstrate societal impact, but we can also make the case for academic usage to generate impact indirectly.
organization	Please tell us the name of the organization for which you are using **texreg**. If we can show that the package is being employed in a number of different settings, this will help us demonstrate impact.
name	(Optional) We would be delighted to to know who you are. After all, we can quote you much more effectively if we can tell the funders and employers who provided this praise! If possible, include your title.
general_praise	Use this argument to provide general praise, for example about the way it was designed, the user support you have received, or just how much you enjoy using it. While this is useful, however, we would be even more interested in receiving statements in how **texreg** makes you more productive (in the increase_productivity argument) or how it increases the quality of your work or your reports (through the increase_quality argument). Note: you need to provide at least one of these three free-form text arguments.
increase_productivity	This is one of the fields we are most interested in. Please use this field to tell us how **texreg** is making you more productive. For example, does it speed up writing your articles or research reports? Does it enable you to skip manual work like copy and paste of your results into your reports, or to avoid fiddling with table formatting? How much time has it saved you so far? Are there any other benefits in terms of productivity you can think of? Note: you need to provide feedback using at least one of the three free-form arguments (general_praise, increase_productivity, or increase_quality).
increase_quality	This is one of the fields we are most interested in. Please use this argument to tell us how **texreg** increases the quality of your work or the quality of your reporting. For example, does the package generate tables that look more professional than the tables you used to create manually? Are you using screenreg to improve your workflow by understanding better how the results of multiple

models compare? Are you using plotreg to visualize and present your statistical results in a more effective way? Can you think of any other ways in which **texreg** is helping you? Note: you need to provide feedback using at least one of the three free-form arguments (`general_praise`, `increase_productivity`, or `increase_quality`).

`start_using` (Optional) When did you start using **texreg**? We are interested in the approximate time or year as a free-form text argument, for example `"back in 2013 when the JSS article came out"`.

`where_learn` (Optional) Where or how did you learn about the **texreg** package?

`contact_details`
(Optional) Tell us how we can contact you in case we would benefit from additional information. This might help us further down the road in compiling an impact case study or a similar report. Don't worry, this information will not be displayed on the website!

`models` (Optional) Which kinds of statistical models do you use in your work? For example, `"Mostly linear models, but also lme4 and ergm."`.

`num_users` (Optional) How many other **texreg** users do you know? In particular, if you are a non-academic user, would you mind telling us how many other non-academic users you are aware of and how many of them are in your organization? The more we know, the more convincing our evidence base will be. This argument accepts `numeric` values or more detailed responses as a `character` object.

`return.response`
If `TRUE`, a website with the submitted data will be returned as a `response` object, as defined in the **httr** package. You can load the **httr** package and use the `content` function, possibly enclosed in an `as.character` call, to inspect the output and diagnose any problems with the transmission of the data. Only use this argument if instructed by the package authors.

Details

The `praise_interactive` function asks you 11 questions interactively on the R console. You can choose to answer or skip them. Some questions are mandatory but most are optional. After collecting your answers, it will call the `praise` function to submit your praise. You can also choose to use the `praise` function directly and supply your answers as arguments. Either way is fine.

Before your praise is submitted, the functions will present an interactive menu and ask if you want to submit the praise now. So do not worry about accidentally submitting feedback.

You can use these functions to praise the **texreg** package. Funders and academic employers are increasingly interested in seeing evidence for the impact academic research generates. For software, such as **texreg**, this is very hard to accomplish because the developers are usually disconnected from the users. The consequence is that incentives for developing packages like these are diminishing the more the funders and employers require evidence of impact on society, firms, or policy makers.

The `praise` and `praise_interactive` functions are our attempt at rectifying the situation. With these functions, you can provide positive feedback to the developers. The praise is saved to a database on the web server of the package maintainer and subsequently displayed at https://www.philipleifeld.com/praise/ for other users, funders, and employers to view. This will

also enable the package authors to compile reports about how **texreg** is used by academic and non-academic users to increase their productivity and work quality, for example in the form of an impact case study for the next round of the UK Research Excellence Framework (REF).

We need many positive examples of how **texreg** has an impact on your work. We are especially interested in non-academic users, but welcome feedback from anyone. So please contribute by using the praise function! Tell us how cool this package is and how it has changed your work!

The minimal information we require from you is whether you are an academic or non-academic user, the name of your organization, and some free-form praise (of a general nature, or about how it makes you more productive, or about how it increases the quality of your work or reporting). But there are some additional fields. While we are happy with the basic information, of course we will be happier if we also know your name, how to contact you, what kinds of models you work with, and some other details. Your choice!

Please note that by using the `praise` or `praise_interactive` function you agree that the information you provide through the function, including your approximate location, is stored online in a database, displayed on the website of the package author, and used in reports to funders, employers etc. (This is the whole purpose of it.) You can contact the package maintainer any time to have your praise removed within a few days.

Value

If everything works well, no output is returned (but see the `return.response` argument to change this). If the submission of the praise to the maintainer fails, a `response` object (as defined in the **httr** package) will be returned. Should you have any problems, do feel free to e-mail your praise to the package maintainer directly.

Author(s)

Philip Leifeld

Examples

```
## Not run:
praise(academic_user = TRUE,
       organization = "University of Happy Tables",
       increase_quality = "Man, I've never seen such pretty tables!")

## End(Not run)
```

---

print.texregTable *Prints a* `texregTable` *object.*

Description

Prints a `texregTable` object.

Usage

```
## S3 method for class 'texregTable'
print(x, ...)
```

Arguments

x	A texregTable argument, as produced by texreg and related functions.
...	Additional arguments for the cat function.

Author(s)

Philip Leifeld

---

screenreg *Convert regression output to an ASCII table*

Description

Conversion of R regression output to an ASCII table for display on screen.

Usage

```
screenreg(
  l,
  file = NULL,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
  custom.header = NULL,
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  custom.note = NULL,
  digits = 2,
  leading.zero = TRUE,
  star.symbol = "*",
  symbol = ".",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
```

```
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  column.spacing = 2,
  outer.rule = "=",
  inner.rule = "-",
  ...
)
```

Arguments

`l`	A statistical model or a list of statistical models. Lists of models can be specified as `l = list(model.1, model.2, ...)`. Different object types can also be mixed.
`file`	Using this argument, the resulting table is written to a file rather than to the R prompt. The file name can be specified as a character string. Writing a table to a file can be useful for working with MS Office or LibreOffice. For example, using the `htmlreg` function, an HTML table can be written to a file with the extension `.doc` and opened with MS Word. The table can then be simply copied into any Word document, retaining the formatting of the table. Note that LibreOffice can import only plain HTML; CSS decorations are not supported; the resulting tables do not retain the full formatting in LibreOffice.
`single.row`	By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If `single.row = TRUE` is activated, however, both coefficient and standard error are placed in a single table cell in the same line.
`stars`	The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, `stars = numeric(0)` will not print any stars and will not print any note about significance levels below the table. `stars = 0.05` will attach one single star to all coefficients where the p value is below 0.05. `stars = c(0.001, 0.01, 0.05, 0.1)` will print one, two, or three stars, or a symbol as specified by the `symbol` argument depending on the p-values.
`custom.header`	An optional named list of multi-column headers that are placed above the model names. For example, `custom.header = list("abc" = 1:3, "ef" = 4:5)` will add the label `"abc"` to the first three models and `"ef"` to the fourth and fifth model. The column with coefficient names and any custom columns added by the `"custom.columns"` argument are not counted towards these positions. If `booktabs = TRUE`, `\cmidrule` rules are added below the respective labels; otherwise `\cline` lines are used.
`custom.model.names`	A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying `model.names = c("My name 1", "My name 2")` etc. overrides the default behavior.

custom.coef.names

By default, **texreg** uses the coefficient names which are stored in the models. The custom.coef.names argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument custom.coef.names = c("Intercept", "variable 1", "variable 2") will replace their names in this order.

Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model.

See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.

custom.coef.map

The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients.

Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map,

1. coefficients will be presented in order: "x", "y", "z".
2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable".
3. all variables not named "x", "y", or "z" will be omitted from the table.

custom.gof.names

A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows

A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

custom.note

With this argument, a replacement text for the significance note below the table can be provided. If an empty character object is provided (custom.note = ""), the note will be omitted completely. If some character string is provided (e.g., custom.note = "My note"), the significance legend is replaced by

My note. The original significance legend can be included by inserting the %stars wildcard. For example, a custom note can be added right after the significance legend by providing custom.note = "%stars. My note.".

If the threeparttable argument is used, any note should be preceded by "\\item", for example "\\item %stars. \\item Second note. \\item Third note.", and it is possible to create line breaks in the formatted table by including "\\\\" and line breaks in the LaTeX code by including "\n", for example "\n\\item %stars.\\\\\n\\item Second line.\n".

digits — Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

leading.zero — Most journals require leading zeros of coefficients and standard errors (for example, 0.35). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, .35). This can be achieved by setting leading.zero = FALSE.

star.symbol — Alternative characters for the significance stars can be specified. This is useful if **knitr** and Markdown are used for HTML report generation. In Markdown, asterisks or stars are interpreted as special characters, so they have to be escaped. To make a HTML table compatible with Markdown, specify star.symbol = "*". Note that some other modifications are recommended for usage with **knitr** in combination with Markdown or HTML (see the inline.css, doctype, html.tag, head.tag, and body.tag arguments in the htmlreg function).

symbol — If four threshold values are handed over to the stars argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is "\\cdot" for the LaTeX dot, "·" for the HTML dot, or simply "." for the ASCII dot. If the texreg function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example symbol = "\\circ" for a small circle (note that backslashes must be escaped). If the htmlreg function is used, any other HTML character or symbol can be used. For the screenreg function, only plain text characters can be used.

override.coef — Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: override.coef = c(0.05, 0.06, 0.07).

override.se — Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: override.se = c(0.05, 0.06, 0.07). Overriding standard errors can be useful for the implementation of robust SEs, for example.

override.pvalues
: Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

override.ci.low
: Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.up` argument, the standard errors and p-values as well as the `ci.force` argument are ignored.

override.ci.up
: Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.low` argument, the standard errors and p values as well as the `ci.force` argument are ignored.

omit.coef
: A character string which is used as a regular expression to remove coefficient rows from the table. For example, `omit.coef = "group"` deletes all coefficient rows from the table where the name of the coefficient contains the character sequence `"group"`. More complex regular expressions can be used to filter out several kinds of model terms, for example `omit.coef = "(thresh)|(ranef)"` to remove all model terms matching either `"thresh"` or `"ranef"`. The `omit.coef` argument is processed after the `custom.coef.names` argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the `extract` function.

reorder.coef
: Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, `reorder.coef = c(3, 2, 1)` will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the `custom.coef.names` and `omit.coef` arguments should follow the original order.

reorder.gof
: Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, `reorder.gof = c(3, 2, 1)` will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the `custom.gof.names` and `custom.gof.rows` arguments should follow the original order, and the `reorder.gof` argument should contain values for any rows that are added through the `custom.gof.rows` argument.

ci.force
: Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors

and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the `ci.force` argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (`ci.force = TRUE` for all and `ci.force = FALSE` for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., `ci.force = c(FALSE, TRUE, FALSE)`). Confidence intervals are computed using the standard normal distribution (z-values based on the `qnorm` function). The t-distribution is currently not supported because this would require each `extract` method to have an additional argument for the degrees of freedom.

`ci.force.level` If the `ci.force` argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, `0.95` is used (i.e., an alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will attach a significance star to coefficients if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, `ci.test = NA` can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`groups` This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: `groups = list("first group" = 1:4, "second group" = 7:8)`.

`custom.columns` An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, `custom.columns = list(type = c("a", "b", "c"), 1:3)` will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to `character` objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

`custom.col.pos` An optional integer vector of positions for the columns given in the `custom.columns` argument. For example, if there are three custom columns, `custom.col.pos = c(1, 3, 3)` will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

`column.spacing` The amount of space between any two columns of a table. By default, two spaces are used. If the tables do not fit on a single page horizontally, the value can be set to `1` or `0`.

`outer.rule` The character which is used to draw the outer horizontal line above and below a table. If an empty character object is provided (i.e., `outer.rule = ""`), there will be no outer horizontal lines. Recommended values are `""`, `"="`, `"-"`, `"_"`, or `"#"`.

`inner.rule` The character used to draw the inner horizontal line above and below a table. If an empty `character` object is provided (i.e., `outer.rule = ""`), there will be no inner horizontal lines. Recommended values are `""`, `"-"`, or `"_"`.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `screenreg` function creates text representations of tables and prints them to the R console. This is an alternative to the `summary` function and serves easy model comparison. Moreover, once a table has been prepared in the R console, it can be later exported to LaTeX or HTML with little extra effort because the majority of arguments of the different functions are identical.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

`texreg-package` `extract`

Other texreg: `htmlreg()`, `huxtablereg()`, `knitreg()`, `matrixreg()`, `plotreg()`, `texreg`, `wordreg()`

Examples

```
# Display models from ?lm:
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
lm.D90 <- lm(weight ~ group - 1)
screenreg(list(lm.D9, lm.D90))
```

show,texreg-method *Show method for pretty output of texreg objects*

Description

Show method for pretty output of texreg objects.

Usage

```
## S4 method for signature 'texreg'
show(object)
```

Arguments

object	The texreg object to display.

Details

Print the different slots of texreg objects to the screen.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

extract, createTexreg, screenreg

texreg *Convert regression output to a LaTeX table*

Description

Conversion of R regression output to a LaTeX table.

Usage

```
texreg(
  l,
  file = NULL,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
  custom.header = NULL,
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  custom.note = NULL,
  digits = 2,
  leading.zero = TRUE,
  symbol = "\\cdot",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  bold = 0,
  center = TRUE,
  caption = "Statistical models",
  caption.above = FALSE,
  label = "table:coefficients",
  booktabs = FALSE,
  dcolumn = FALSE,
  siunitx = FALSE,
  lyx = FALSE,
  sideways = FALSE,
  longtable = FALSE,
  threeparttable = FALSE,
  use.packages = TRUE,
  table = TRUE,
  tabular = TRUE,
  no.margin = FALSE,
  fontsize = NULL,
  scalebox = NULL,
```

```
  float.pos = "",
  ...
)
```

Arguments

`l`	A statistical model or a list of statistical models. Lists of models can be specified as `l = list(model.1, model.2, ...)`. Different object types can also be mixed.
`file`	Using this argument, the resulting table is written to a file rather than to the R prompt. The file name can be specified as a character string. Writing a table to a file can be useful for working with MS Office or LibreOffice. For example, using the `htmlreg` function, an HTML table can be written to a file with the extension `.doc` and opened with MS Word. The table can then be simply copied into any Word document, retaining the formatting of the table. Note that LibreOffice can import only plain HTML; CSS decorations are not supported; the resulting tables do not retain the full formatting in LibreOffice.
`single.row`	By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If `single.row = TRUE` is activated, however, both coefficient and standard error are placed in a single table cell in the same line.
`stars`	The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, `stars = numeric(0)` will not print any stars and will not print any note about significance levels below the table. `stars = 0.05` will attach one single star to all coefficients where the p value is below 0.05. `stars = c(0.001, 0.01, 0.05, 0.1)` will print one, two, or three stars, or a symbol as specified by the `symbol` argument depending on the p-values.
`custom.header`	An optional named list of multi-column headers that are placed above the model names. For example, `custom.header = list("abc" = 1:3, "ef" = 4:5)` will add the label `"abc"` to the first three models and `"ef"` to the fourth and fifth model. The column with coefficient names and any custom columns added by the `"custom.columns"` argument are not counted towards these positions. If `booktabs = TRUE`, `\cmidrule` rules are added below the respective labels; otherwise `\cline` lines are used.
`custom.model.names`	A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying `model.names = c("My name 1", "My name 2")` etc. overrides the default behavior.
`custom.coef.names`	By default, **texreg** uses the coefficient names which are stored in the models. The `custom.coef.names` argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument `custom.coef.names = c("Intercept", "variable 1", "variable 2")` will replace their names in this order.

Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model.

See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.

custom.coef.map

The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients.

Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map,

1. coefficients will be presented in order: "x", "y", "z".
2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable".
3. all variables not named "x", "y", or "z" will be omitted from the table.

custom.gof.names

A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows

A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

custom.note

With this argument, a replacement text for the significance note below the table can be provided. If an empty character object is provided (custom.note = ""), the note will be omitted completely. If some character string is provided (e.g., custom.note = "My note"), the significance legend is replaced by My note. The original significance legend can be included by inserting the %stars wildcard. For example, a custom note can be added right after the significance legend by providing custom.note = "%stars. My note.".

If the threeparttable argument is used, any note should be preceded by "\\item", for example "\\item %stars. \\item Second note. \\item Third note.", and it is possible to create line breaks in the formatted table by including "\\\\"

and line breaks in the LaTeX code by including "\n", for example "\n\\item %stars.\\\\\n\\item Second line.\n".

digits
: Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

leading.zero
: Most journals require leading zeros of coefficients and standard errors (for example, 0.35). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, .35). This can be achieved by setting leading.zero = FALSE.

symbol
: If four threshold values are handed over to the stars argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is "\\cdot" for the LaTeX dot, "·" for the HTML dot, or simply "." for the ASCII dot. If the texreg function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example symbol = "\\circ" for a small circle (note that backslashes must be escaped). If the htmlreg function is used, any other HTML character or symbol can be used. For the screenreg function, only plain text characters can be used.

override.coef
: Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: override.coef = c(0.05, 0.06, 0.07).

override.se
: Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: override.se = c(0.05, 0.06, 0.07). Overriding standard errors can be useful for the implementation of robust SEs, for example.

override.pvalues
: Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: override.pvalues = c(0.05, 0.06, 0.07). Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

override.ci.low
: Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in

the override.ci.up argument, the standard errors and p-values as well as the ci.force argument are ignored.

override.ci.up Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the override.ci.low argument, the standard errors and p values as well as the ci.force argument are ignored.

omit.coef A character string which is used as a regular expression to remove coefficient rows from the table. For example, omit.coef = "group" deletes all coefficient rows from the table where the name of the coefficient contains the character sequence "group". More complex regular expressions can be used to filter out several kinds of model terms, for example omit.coef = "(thresh)|(ranef)" to remove all model terms matching either "thresh" or "ranef". The omit.coef argument is processed after the custom.coef.names argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the extract function.

reorder.coef Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, reorder.coef = c(3, 2, 1) will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and after omitting coefficients, so the custom.coef.names and omit.coef arguments should follow the original order.

reorder.gof Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, reorder.gof = c(3, 2, 1) will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the custom.gof.names and custom.gof.rows arguments should follow the original order, and the reorder.gof argument should contain values for any rows that are added through the custom.gof.rows argument.

ci.force Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the ci.force argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (ci.force = TRUE for all and ci.force = FALSE for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., ci.force = c(FALSE, TRUE, FALSE)). Confidence intervals are computed using the standard normal distribution (z-values based on the qnorm function). The t-distribution is currently not supported because this would require each extract method to have an additional argument for the degrees of freedom.

ci.force.level If the ci.force argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, 0.95 is used (i.e., an alpha value of 0.05).

ci.test If confidence intervals are reported, the ci.test argument specifies the reference value to establish whether a coefficient/CI is significant. The default value ci.test = 0, for example, will attach a significance star to coefficients if the confidence interval does not contain 0. A value of ci.test = 1 could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, ci.test = NA can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The ci.test argument works both for models with native support for confidence intervals and in cases where the ci.force argument is used.

groups This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: groups = list("first group" = 1:4,"second group" = 7:8).

custom.columns An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, custom.columns = list(type = c("a", "b", "c"), 1:3) will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to character objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

custom.col.pos An optional integer vector of positions for the columns given in the custom.columns argument. For example, if there are three custom columns, custom.col.pos = c(1, 3, 3) will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

bold The p-value threshold below which the coefficient shall be formatted in a bold font. For example, bold = 0.05 will cause all coefficients that are significant at the 95% level to be formatted in bold. Note that this is not compatible with the dcolumn or siunitx arguments in the texreg function. If both bold and dcolumn or siunitx are TRUE, dcolumn and siunitx are switched off, and a warning message appears. Note also that it is advisable to use stars = FALSE together with the bold argument because having both bolded coefficients and significance stars usually does not make any sense.

center Should the table be horizontally aligned at the center of the page?

caption Set the caption of the table.

caption.above Should the caption of the table be placed above the table? By default, it is placed below the table.

`label` Set the label of the `table` environment.

`booktabs` Use the **booktabs** LaTeX package to get thick horizontal rules in the output table (recommended).

`dcolumn` Use the **dcolumn** LaTeX package to get a nice alignment of the coefficients at the decimal separator (recommended for use with the `texreg` function). Note that only one of the three arguments `bold`, `dcolumn`, and `siunitx` can be used at a time as they are mutually incompatible.

`siunitx` Use the **siunitx** LaTeX package to get a nice alignment of the coefficients at the decimal separator (recommended for use with the `texreg` function). Note that only one of the three arguments `bold`, `dcolumn`, and `siunitx` can be used at a time as they are mutually incompatible.

`lyx` `logical`; if `TRUE`, each new line in the output is doubled, which facilitates transferring the output into the LyX document processor.

`sideways` If `sideways = TRUE` is set, the `table` floating environment is replaced by a `sidewaystable` float, and the `rotating` package is loaded in the preamble. The argument only has an effect if `table = TRUE` is also set.

`longtable` If `longtable = TRUE` is set, the `longtable` environment from the `longtable` LaTeX package is used to set tables across multiple pages. Note that this argument is not compatible with the `sideways` and `scalebox` arguments. These arguments will be automatically switched off when `longtable = TRUE` is set.

`threeparttable` If `threeparttable = TRUE` is set, the `threeparttable` environment will be used to enclose the `tabular` environment in the LaTeX code, and the significance note will be enclosed in a `tablenotes` environment. This permits word wrapping of long table notes and adequate spacing between multiple notes. See also the `custom.note` argument. If `longtable` is used, the `threeparttablex` LaTeX package is used instead of the `threeparttable` package.

`use.packages` If this argument is set to `TRUE` (= the default behavior), the required LaTeX packages are loaded in the beginning. If set to `FALSE`, the use package statements are omitted from the output.

`table` By default, `texreg` puts the actual `tabular` object in a `table` floating environment. To get only the `tabular` object without the whole table header, set `table = FALSE`.

`tabular` By default, the table contents are wrapped in a `tabular` environment. To get only the contents for each row without the environment, set `tabular = FALSE`. Note that if `tabular = FALSE`, the `table` argument must also be `FALSE`, otherwise a warning is printed. Switching off the tabular environment may be useful for designing one's own table more flexibly, for example using `tabular*` or `tabularx` environments in LaTeX.

`no.margin` In order to save space, inner margins of tables can be switched off.

`fontsize` The `fontsize` argument serves to change the font size used in the table. Valid values are `"tiny"`, `"scriptsize"`, `"footnotesize"`, `"small"`, `"normalsize"`, `"large"`, `"Large"`, `"LARGE"`, `"huge"`, and `"Huge"`. Note that the `scalebox` argument often achieves better results when the goal is to change the size of the table.

`scalebox` The `scalebox` argument serves to resize the table. For example, `scalebox = 1.0` is equivalent to the normal size, `scalebox = 0.5` decreases the size of the table by one half, and `scalebox = 2.0` doubles the space occupied by the table. Note that the `scalebox` argument does not work when the `longtable` argument is used.

`float.pos` This argument specifies where the table should be located on the page or in the document. By default, no floating position is specified, and LaTeX takes care of the position automatically. Possible values include `"h"` (here), `"p"` (page), `"t"` (top), `"b"` (bottom), any combination thereof, e.g., `"tb"`, or any of these values followed by an exclamation mark, e.g. `"t!"`, in order to enforce this position. The square brackets do not have to be specified.

`...` Custom options to be passed on to the `extract` function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of `extract` for more information.

Details

The `texreg` function creates LaTeX code for inclusion in a LaTeX document or for usage with **Sweave** or **knitr**, based on a list of statistical models.

Value

A `character` object with a regression table and LaTeX markup. The object has an additional `"texregTable"` class identifier, which causes the object to be formatted nicely on screen when printed.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

`texreg-package` `extract`

Other texreg: `htmlreg()`, `huxtablereg()`, `knitreg()`, `matrixreg()`, `plotreg()`, `screenreg()`, `wordreg()`

Examples

```
# Linear mixed-effects models
library("nlme")
model.1 <- lme(distance ~ age, data = Orthodont, random = ~ 1)
model.2 <- lme(distance ~ age + Sex, data = Orthodont, random = ~ 1)
texreg(list(model.1, model.2), booktabs = TRUE, dcolumn = TRUE)
```

```
# Ordinary least squares model (example from the 'lm' help file)
ctl <- c(4.17,5.58,5.18,6.11,4.50,4.61,5.17,4.53,5.33,5.14)
trt <- c(4.81,4.17,4.41,3.59,5.87,3.83,6.03,4.89,4.32,4.69)
group <- gl(2,10,20, labels = c("Ctl","Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
table.string <- texreg(lm.D9, return.string = TRUE)
cat(table.string)
```

`texreg-class` *An S4 class to represent a statistical model as a texreg object*

Description

An S4 class to represent a statistical model as a texreg object.

Details

A texreg object stores details about a statistical model. It can be used for creating regression tables using `screenreg`, `texreg`, and similar functions.

Slots

`coef.names` The covariate names.

`coef` The coefficients.

`se` The standard errors.

`pvalues` The p-values.

`ci.low` The lower bounds of the confidence intervals.

`ci.up` The upper bounds of the confidence intervals.

`gof.names` The names of the goodness-of-fit statistics.

`gof` The goodness-of-fit statistics.

`gof.decimal` A vector describing for each GOF statistic whether it is a decimal value (`TRUE`) or an integer value (`FALSE`).

`model.name` An optional model name. Can be of length zero.

Author(s)

Philip Leifeld

References

Leifeld, Philip (2013). texreg: Conversion of Statistical Model Output in R to LaTeX and HTML Tables. Journal of Statistical Software 55(8): 1-24. doi: 10.18637/jss.v055.i08.

See Also

`extract` `createTexreg`

wordreg *Export regression output to an MS Word file*

Description

Export regression output to an MS Word file.

Usage

```
wordreg(
  l,
  file = NULL,
  single.row = FALSE,
  stars = c(0.001, 0.01, 0.05),
  custom.model.names = NULL,
  custom.coef.names = NULL,
  custom.coef.map = NULL,
  custom.gof.names = NULL,
  custom.gof.rows = NULL,
  digits = 2,
  leading.zero = TRUE,
  star.symbol = "*",
  symbol = ".",
  override.coef = 0,
  override.se = 0,
  override.pvalues = 0,
  override.ci.low = 0,
  override.ci.up = 0,
  omit.coef = NULL,
  reorder.coef = NULL,
  reorder.gof = NULL,
  ci.force = FALSE,
  ci.force.level = 0.95,
  ci.test = 0,
  groups = NULL,
  custom.columns = NULL,
  custom.col.pos = NULL,
  ...
)
```

Arguments

l	A statistical model or a list of statistical models. Lists of models can be specified as l = list(model.1, model.2, ...). Different object types can also be mixed.
file	Using this argument, the resulting table is written to a file rather than to the R prompt. The file name can be specified as a character string. Writing a table to a

file can be useful for working with MS Office or LibreOffice. For example, using the htmlreg function, an HTML table can be written to a file with the extension .doc and opened with MS Word. The table can then be simply copied into any Word document, retaining the formatting of the table. Note that LibreOffice can import only plain HTML; CSS decorations are not supported; the resulting tables do not retain the full formatting in LibreOffice.

single.row
: By default, a model parameter takes up two lines of the table: the standard error is listed in parentheses under the coefficient. This saves a lot of horizontal space on the page and is the default table format in most academic journals. If single.row = TRUE is activated, however, both coefficient and standard error are placed in a single table cell in the same line.

stars
: The significance levels to be used to draw stars. Between 0 and 4 threshold values can be provided as a numeric vector. For example, stars = numeric(0) will not print any stars and will not print any note about significance levels below the table. stars = 0.05 will attach one single star to all coefficients where the p value is below 0.05. stars = c(0.001, 0.01, 0.05, 0.1) will print one, two, or three stars, or a symbol as specified by the symbol argument depending on the p-values.

custom.model.names
: A character vector of labels for the models. By default, the models are named "Model 1", "Model 2", etc. Specifying model.names = c("My name 1", "My name 2") etc. overrides the default behavior.

custom.coef.names
: By default, **texreg** uses the coefficient names which are stored in the models. The custom.coef.names argument can be used to replace them by other character strings in the order of appearance. For example, if a table shows a total of three different coefficients (including the intercept), the argument custom.coef.names = c("Intercept", "variable 1", "variable 2") will replace their names in this order.

  Sometimes it happens that the same variable has a different name in different models. In this case, the user can use this function to assign identical names. If possible, the rows will then be merged into a single row unless both rows contain values in the same column.

  Where the argument contains an NA value, the original name of the coefficient is kept. For example, custom.coef.names = c(NA, "age", NA) will only replace the second coefficient name and leave the first and third name as they are in the original model.

  See also custom.coef.map for an easier and more comprehensive way to rename, omit, and reorder coefficients.

custom.coef.map
: The custom.coef.map argument can be used to select, omit, rename, and reorder coefficients.

  Users must supply a named list of this form: list("x" = "First variable", "y" = NA, "z" = "Third variable"). With that particular example of custom.coef.map,

  1. coefficients will be presented in order: "x", "y", "z".
  2. variable "x" will appear as "First variable", variable "y" will appear as "y", and variable "z" will appear as "Third variable".

3. all variables not named "x", "y", or "z" will be omitted from the table.

custom.gof.names
: A character vector which is used to replace the names of the goodness-of-fit statistics at the bottom of the table. The vector must have the same length as the number of GOF statistics in the final table. The argument works like the custom.coef.names argument, but for the GOF values. NA values can be included where the original GOF name should be kept.

custom.gof.rows
: A named list of vectors for new lines at the beginning of the GOF block of the table. For example, list("Random effects" = c("YES", "YES", "NO"), Observations = c(25, 25, 26)) would insert two new rows into the table, at the beginning of the GOF block (i.e., after the coefficients). The rows can contain integer, numeric, or character objects. Note that this argument is processed after the custom.gof.names argument (meaning custom.gof.names should not include any of the new GOF rows) and before the reorder.gof argument (meaning that the new GOF order specified there should contain values for the new custom GOF rows). Arguments for custom columns are not affected because they only insert columns into the coefficient block.

digits
: Set the number of decimal places for coefficients, standard errors and goodness-of-fit statistics. Do not use negative values! The argument works like the digits argument in the round function of the **base** package.

leading.zero
: Most journals require leading zeros of coefficients and standard errors (for example, 0.35). This is also the default texreg behavior. Some journals, however, require omission of leading zeros (for example, .35). This can be achieved by setting leading.zero = FALSE.

star.symbol
: Alternative characters for the significance stars can be specified. This is useful if **knitr** and Markdown are used for HTML report generation. In Markdown, asterisks or stars are interpreted as special characters, so they have to be escaped. To make a HTML table compatible with Markdown, specify star.symbol = "*". Note that some other modifications are recommended for usage with **knitr** in combination with Markdown or HTML (see the inline.css, doctype, html.tag, head.tag, and body.tag arguments in the htmlreg function).

symbol
: If four threshold values are handed over to the stars argument, p-values smaller than the largest threshold value but larger than the second-largest threshold value are denoted by this symbol. The default symbol is "\\cdot" for the LaTeX dot, "·" for the HTML dot, or simply "." for the ASCII dot. If the texreg function is used, any other mathematical LaTeX symbol or plain text symbol can be used, for example symbol = "\\circ" for a small circle (note that backslashes must be escaped). If the htmlreg function is used, any other HTML character or symbol can be used. For the screenreg function, only plain text characters can be used.

override.coef
: Set custom values for the coefficients. New coefficients are provided as a list of numeric vectors. The list contains vectors of coefficients for each model. There must be as many vectors of coefficients as there are models. For example, if there are two models with three model terms each, the argument could be specified as override.coef = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07)). If

there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.coef = c(0.05, 0.06, 0.07)`.

`override.se` Set custom values for the standard errors. New standard errors are provided as a list of numeric vectors. The list contains vectors of standard errors for each model. There must be as many vectors of standard errors as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.se = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list).For example: `override.se = c(0.05, 0.06, 0.07)`. Overriding standard errors can be useful for the implementation of robust SEs, for example.

`override.pvalues`
Set custom values for the p-values. New p-values are provided as a list of numeric vectors. The list contains vectors of p-values for each model. There must be as many vectors of p-values as there are models. For example, if there are two models with three coefficients each, the argument could be specified as `override.pvalues = list(c(0.1, 0.2, 0.3), c(0.05, 0.06, 0.07))`. If there is only one model, custom values can be provided as a plain vector (not embedded in a list). For example: `override.pvalues = c(0.05, 0.06, 0.07)`. Overriding p-values can be useful for the implementation of robust SEs and p-values, for example.

`override.ci.low`
Set custom lower confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.up` argument, the standard errors and p-values as well as the `ci.force` argument are ignored.

`override.ci.up` Set custom upper confidence interval bounds. This works like the other override arguments, with one exception: if confidence intervals are provided here and in the `override.ci.low` argument, the standard errors and p values as well as the `ci.force` argument are ignored.

`omit.coef` A character string which is used as a regular expression to remove coefficient rows from the table. For example, `omit.coef = "group"` deletes all coefficient rows from the table where the name of the coefficient contains the character sequence `"group"`. More complex regular expressions can be used to filter out several kinds of model terms, for example `omit.coef = "(thresh)|(ranef)"` to remove all model terms matching either `"thresh"` or `"ranef"`. The `omit.coef` argument is processed after the `custom.coef.names` argument, so the regular expression should refer to the custom coefficient names. To omit GOF entries instead of coefficient entries, use the custom arguments of the extract functions instead (see the help entry of the `extract` function.

`reorder.coef` Reorder the rows of the coefficient block of the resulting table in a custom way. The argument takes a vector of the same length as the number of coefficients. For example, if there are three coefficients, `reorder.coef = c(3, 2, 1)` will put the third coefficient in the first row and the first coefficient in the third row. Reordering can be sensible because interaction effects are often added to the end of the model output although they were specified earlier in the model formula. Note: Reordering takes place after processing custom coefficient names and af-

ter omitting coefficients, so the `custom.coef.names` and `omit.coef` arguments should follow the original order.

`reorder.gof` Reorder the rows of the goodness-of-fit block of the resulting table in a custom way. The argument takes a vector of the same length as the number of GOF statistics. For example, if there are three goodness-of-fit rows, `reorder.gof = c(3, 2, 1)` will exchange the first and the third row. Note: Reordering takes place after processing custom GOF names and after adding new custom GOF rows, so the `custom.gof.names` and `custom.gof.rows` arguments should follow the original order, and the `reorder.gof` argument should contain values for any rows that are added through the `custom.gof.rows` argument.

`ci.force` Should confidence intervals be used instead of the default standard errors and p-values? Most models implemented in the **texreg** package report standard errors and p-values by default while few models report confidence intervals. However, the functions in the **texreg** package can convert standard errors and into confidence intervals using z-scores if desired. To enforce confidence intervals instead of standard errors, the `ci.force` argument accepts either a logical value indicating whether all models or none of the models should be forced to report confidence intervals (`ci.force = TRUE` for all and `ci.force = FALSE` for none) or a vector of logical values indicating for each model separately whether the model should be forced to report confidence intervals (e.g., `ci.force = c(FALSE, TRUE, FALSE)`). Confidence intervals are computed using the standard normal distribution (z-values based on the `qnorm` function). The t-distribution is currently not supported because this would require each `extract` method to have an additional argument for the degrees of freedom.

`ci.force.level` If the `ci.force` argument is used to convert standard errors to confidence intervals, what confidence level should be used? By default, `0.95` is used (i.e., an alpha value of 0.05).

`ci.test` If confidence intervals are reported, the `ci.test` argument specifies the reference value to establish whether a coefficient/CI is significant. The default value `ci.test = 0`, for example, will attach a significance star to coefficients if the confidence interval does not contain `0`. A value of `ci.test = 1` could be useful if coefficients are provided on the odds-ratio scale, for example. If no star should be printed at all, `ci.test = NA` can be used. It is possible to provide a single value for all models or a vector with a separate value for each model. The `ci.test` argument works both for models with native support for confidence intervals and in cases where the `ci.force` argument is used.

`groups` This argument can be used to group the rows of the table into blocks. For example, there could be one block for hypotheses and another block for control variables. Each group has a heading, and the row labels within a group are indented. The partitions must be handed over as a list of named numeric vectors, where each number is a row index and each name is the heading of the group. Example: `groups = list("first group" = 1:4, "second group" = 7:8)`.

`custom.columns` An optional list of additional text columns to be inserted into the coefficient block of the table, for example coefficient types. The list should contain one or more character vectors with as many character or numeric elements as there are coefficients/model terms. If the vectors in the list are named, the names are used as labels in the table header. For example, `custom.columns = list(type`

= c("a", "b", "c"), 1:3) will add two columns; the first one is labeled while the second one is not. Note that the numeric elements of the second column will be converted to character objects in this example. The consequence is that decimal alignment with the **dcolumn** package is switched off in these columns. Note that this argument is processed after any arguments that affect the number of rows.

custom.col.pos An optional integer vector of positions for the columns given in the custom.columns argument. For example, if there are three custom columns, custom.col.pos = c(1, 3, 3) will insert the first custom column before the first column of the original table and the remaining two custom columns after the second column of the original table. By default, all custom columns are placed after the first column, which usually contains the coefficient names.

... Custom options to be passed on to the extract function. For example, most extract methods provide custom options for the inclusion or exclusion of specific goodness-of-fit statistics. See the help entries of extract for more information.

Details

The wordreg function creates a Microsoft Word document with the requested table.

Author(s)

Vincent Arel-Bundock

See Also

texreg-package extract

Other texreg: htmlreg(), huxtablereg(), knitreg(), matrixreg(), plotreg(), screenreg(), texreg

Examples

```
## Not run:
# Use models from ?lm:
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
lm.D90 <- lm(weight ~ group - 1)
wordreg(list(lm.D9, lm.D90), file = "testfile.doc")
unlink("testfile.doc")

## End(Not run)
```

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