

# Package ‘RcmdrPlugin.NMBU’

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**Type** Package

**Title** R Commander Plug-in for University Level Applied Statistics

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**Encoding** UTF-8

**URL** <https://github.com/khliland/RcmdrPlugin.NMBU/>

**BugReports** <https://github.com/khliland/RcmdrPlugin.NMBU/issues/>

**Depends** R (>= 3.0.0), mixlm (>= 1.2.3), MASS, pls, xtable, phia

**Imports** Rcmdr (>= 2.1-7), tcltk, car

**Suggests** lme4, leaps, mvtnorm, gmodels, abind, lattice, pbkrtest, vcd,  
multcomp, e1071, nnet

**Description** An R Commander “plug-in” extending functionality of linear models and providing an interface to Partial Least Squares Regression and Linear and Quadratic Discriminant analysis. Several statistical summaries are extended, predictions are offered for additional types of analyses, and extra plots, tests and mixed models are available.

**License** GPL (>= 2)

**LazyLoad** yes

**RcmdrModels** mvr, lda, qda, prcomp, mer, rsm, lmm

**RoxygenNote** 7.3.1

**NeedsCompilation** no

**Repository** CRAN

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## R topics documented:

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RcmdrPlugin.NMBU-package

*R Commander Plug-in for University Level Applied Statistics*

## Description

This package provides an Rcmdr "plug-in" extending some functions of linear models and providing new and extended interfaces to PCA, PLS, LDA, QDA, clustering of variables, tests, plots, etc.

## Details

Package: RcmdrPlugin.NMBU  
 License: GPL version 2 or newer  
 LazyLoad: yes

Run the plugin using the code `library(RcmdrPlugin.NMBU)` or `library(umb)`.

Statistical and summary functions included:

- `dummy(y)`
- `PRESS(object=NULL)` (default is current model)
- `PRESS.res(object=NULL)` (default is current model)
- `R2_pred(object=NULL)` (default is current model)
- `forward(model, alpha=0.2, full=FALSE)`
- `backward(model, alpha=0.2, full=FALSE)`
- `stepWise(model, alpha.enter=0.15, alpha.remove=0.15, full=FALSE)`
- `stepWiseBack(model, alpha.remove=0.15, alpha.enter=0.15, full=FALSE)`
- `best.subsets(model, nbest=5, nvmax)`
- `confint.mvr(object, parm, level=0.95, ...)`
- `confusion(true, predicted)`
- `DA.scores(object=NULL)` (default is current model)
- `plotDA(DAobject=NULL, regions=TRUE, contours=FALSE, resolution=100)`
- `hclust.merge(object)` (default is last clustering)
- `mixed.model(formula, random.effects=NULL, data, restrictedModel=FALSE, subset="")`

- `summary.extra(object)`
- `anova_reg(lm.object)`
- `predict_CI_PI(model, data, level)`
- `prop.test.ordinary(x, n, p = NULL, alternative = c("two.sided", "less", "greater"), conf.level = 0.95, correct = TRUE)`
- `rmsep(object)` (default is current model)

Utility functions included:

- `aovP()`
- `clustP()`
- `daP()`
- `mixP()`
- `pcaP()`
- `plsP()`
- `variablesP()`
- `DA.coef()`
- `hclust.list()`
- `listHclustSolutions(envir=.GlobalEnv, ...)`
- `make.colours(object)`
- `confint.mvr(object, parm, level=0.95, ...)`
- `dummy(y)`
- `dummify(y,n,name)`
- `Dummify(data, main.effects, response)`
- `fparse(f)`
- `if.R()`

GUI Functions included:

- `anova_reg_GUI()`
- `backwardDrop()`
- `backwardForward()`
- `bestSubsets()`
- `coefNMBU()`
- `contrastGUI()`
- `contrastGUI2()`
- `covarianceMatrix()`
- `createSequence()`
- `discriminantAnalysis()`
- `discriminantPlot()`

- dotplotGUI()
- enterTableNMBU()
- fittedLinePlot()
- wideForwardAdd()
- forwardAdd()
- forwardBackward()
- hierarchicalClusterVariable()
- linearModelANOVA()
- meanCenter()
- mixtureGUI()
- plsRegressionModel()
- postHocGUI()
- predictRegressionModel()
- PRESS.GUI()
- principalComponentPlots()
- principalComponentsStat()
- proportionTest()
- sortData()
- twoSamplesTTest()
- twoWayTableNMBU()

Graphical Functions included:

- CIplot()
- dotPlot()
- dots()
- mixture.contour()
- panel.ci.plot()
- plotDA()

### Author(s)

Kristian Hovde Liland <kristian.liland@nmbu.no>

### Examples

```
## Not run:  
## This example shows alternative ways of starting  
## package using the official plugin or an unofficial wrapper.  
library(RcmdrPlugin.NMBU) # Starts up the R Commander including this plugin.  
library(nmbu) # Simpler startup with automatic update hosted by NMBU (when available).  
  
## End(Not run)
```

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extend.colnames	<i>Extended summary from multinom</i>
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**Description**

Extended summary from multinom

**Usage**

```
extend.colnames(object, the.name)
```

**Arguments**

object	object fitted with multinom.
the.name	name to be added to column names.

**Value**

Returns object with new colnames.

**Author(s)**

Kristian Hovde Liland

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summaryMultinom	<i>Extended summary from multinom</i>
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**Description**

Extends the summary function of multinom object from nnet.

**Usage**

```
summaryMultinom(object)
```

**Arguments**

object	Object fitted by multinom.
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**Value**

Only printing is performed, nothing is returned.

**Author(s)**

Kristian Hovde Liland

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summaryOrdinal	<i>Extended summary from ordinal regression</i>
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**Description**

Extended summary from ordinal regression.

**Usage**

```
summaryOrdinal(object, digits = max(3, .Options$digits - 3), correlation = FALSE, ...)
```

**Arguments**

object	fitted ordinal regression.
digits	number of digits in output.
correlation	use correlation.
...	additional arguments to pass on.

**Value**

Only printing is performed, nothing is returned.

**Author(s)**

Kristian Hovde Liland

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