

# Package ‘nomogramEx’

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**Type** Package

**Title** Extract Equations from a Nomogram

**Version** 3.0

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**Description** A nomogram can not be easily applied, because it is difficult to calculate the points or even the survival probability. The package, including a function of `nomogramEx()`, is to extract the polynomial equations to calculate the points of each variable, and the survival probability corresponding to the total points.

**License** GPL-3

**Imports** pracma, rms

**LazyData** TRUE

**NeedsCompilation** no

**Repository** CRAN

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nomogramEx *Extract Equations from a Nomogram*

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## Description

A nomogram can not be easily applied, because it is difficult to calculate the points or even the survival probability. The package, including a function of `nomogramEx()`, is to extract the polynomial equations to calculate the points of each variable, and the survival probability corresponding to the total points.

**Usage**

```
nomogramEx(nomo, np, digit)
```

**Arguments**

nomo	a object of nomogram()
np	the number of predicitions in your nomogram, for example: if you predicted 3- and 6- month, np=2, default is 2
digit	the number of decimal digits, default is 9

**Value**

list	the result is a list including polynomial equations to calculate the points of each variable, and the polynomial equations to calculate the probability of points
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**Note**

The polynomial equations extracted by this package are equal and less than cubic function.

Update:

Version 1.0: 1.the order of variables in the polynomial equations is opposite. 2.the number of the demical digits can not be controled.

Version 2.0: 1.the argument 'lp' from the 'nomogram' function can not be recognized.

**Author(s)**

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**See Also**

nothing

**Examples**

```
if(require("rms")){
  n <- 1000
  age <- rnorm(n, 50, 10)
  sex <- factor(sample(c('female', 'male'), n, TRUE))
  sex <- as.numeric(sex)
  ddist <- datadist(age, sex)
  options(datadist='ddist')
  cens <- 15*runif(n)
  time <- -log(runif(n))/0.02*exp(.04*(age-50)+.8*(sex=='Female'))
  death <- ifelse(time <= cens, 1, 0)
  time <- pmin(time, cens)
  units(time) = "month"
  f <- cph(formula(Surv(time, death)~sex+age), x=TRUE, y=TRUE, surv=TRUE, time.inc=3)
  surv <- Survival(f)
  nomo <- nomogram(f, fun=list(function(x) surv(3,x), function(x) surv(6,x)),
    lp=TRUE, funlabel=c("3-Month Survival Prob", "6-Month Survival Prob"))
}
```

```
nomogramEx(nomo=nomo,np=2,digit=9)  
}
```

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\* **nomogram, survival probability**

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