

Package ‘mangoTraining’

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Description Datasets designed to be used in conjunction with Mango Solutions training materials and the book SAMS Teach Yourself R in 24 Hours (ISBN: 978-0-672-33848-9).

URL <http://www.mango-solutions.com>

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mangoTraining-package *Mango SOlutions Training Datasets*

Description

Datasets designed to be used in conjunction with Mango Solutions training materials.

Details

Datasets designed to be used in conjunction with Mango Solutions' training materials and book, SAMS Teach Yourself R in 24 Hours (ISBN: 978-0-672-33848-9). The data covers a range of applications and has been collected together from a number of sources. The airquality dataset, from the Core R datasets package is also provided in xlsx format in the extdata directory of this package.

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demoData *Demographics data*

Description

Demographics data

Usage

demoData

Format

A data frame with 33 observations on the following 7 demographic variables. This data is designed so that it can be merged with the dataset pkData.

Subject A numeric vector giving the subject identifier

Sex A factor with levels F M

Age A numeric vector giving the age of the subject

Weight A numeric vector giving weight in kg

Height A numeric vector giving height in cm

BMI A numeric vector giving the subject body mass index

Smokes A factor with levels No Yes

Source

Simulated data

dowJonesData	<i>Dow Jones Index Data</i>
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Description

Dow Jones Index Data

Usage

dowJonesData

Format

A data frame with 252 observations on the following 7 variables containing data from 2014-01-01 to 2015-01-01.

Date Date of observation in character string format "%m/%d/%Y"

DJI.Open Opening value of DJI on the specified date

DJI.High High value of the DJI on the specified date

DJI.Low Low value of the DJI on the specified date

DJI.Close Closing value of the DJI on the specified date

DJI.Volume the number of shares or contracts traded

DJI.Adj.Close Close price adjusted for dividends and splits

Source

Data obtained using yahooSeries from the fImport package.

drugs	<i>Repeated Measures Drug data</i>
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Description

Repeated Measures Drug data

Usage

drugs

Format

A data frame with 20 observations on the following 3 variables.

Subj A numeric vector, giving the subject ID

Drug A numeric vector giving the drug ID, numbered 1 to 4

Value A numeric vector, giving the observation value

Source

Generated from example data used in <http://www.stat.tutorials.com/SAS/TUTORIAL-PROC-GLM-REPEAT.htm>

emaxData	<i>Data that can be used to fit or plot Emax models</i>
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Description

Data that can be used to fit or plot Emax models

Usage

emaxData

Format

A data frame with 64 observations on the following 6 variables.

Subject a numeric vector giving the unique subject ID

Dose a numeric vector giving the dose group

E a numeric vector giving the Emax

Gender a numeric vector giving the gender

Age a numeric vector giving the age of the subject

Weight a numeric vector giving the weight

Source

Simulated data

emaxFun	<i>Function to calculate Emax</i>
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Description

Calculation used for Emax in Mango Training materials

Usage

emaxFun(Dose, E0 = 0, ED50 = 50, Emax = 100)

Arguments

Dose	The dose value
E0	Response effect when Dose is 0
ED50	Median effective dose
Emax	Maximum effective dose

Examples

emaxFun(Dose = 100)

logisticFun	<i>Function to fit logistic model</i>
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Description

Simple logistic function as used in Mango training materials

Usage

logisticFun(Dose, E0 = 0, EC50 = 50, Emax = 1, rc = 5)

Arguments

Dose	The dose value
E0	Response effect when Dose is 0
EC50	Half maximal effective concentration
Emax	Maximum effective dose
rc	rate constant

Examples

```
logisticFun(Dose = 50)
```

messyData	<i>Messy clinical trial data</i>
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Description

Messy clinical trial data

Usage

```
messyData
```

Format

A data frame with 33 observations on the following 7 variables. This data has been designed to show reshaping/tidying of data.

Subject A numeric vector giving the subject ID

Placebo.1 A numeric vector giving the subjects observed value on treatment Placebo at time 1

Placebo.2 A numeric vector giving the subjects observed value on treatment Placebo at time 2

Drug1.1 A numeric vector giving the subjects observed value on treatment Drug1 at time 1

Drug1.2 A numeric vector giving the subjects observed value on treatment Drug1 at time 2

Drug2.1 A numeric vector giving the subjects observed value on treatment Drug2 at time 1

Drug2.2 A numeric vector giving the subjects observed value on treatment Drug2 at time 2

Source

Simulated data

missingPk	<i>Clinical trial data</i>
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Description

Clinical trial data

Usage

```
missingPk
```

Format

A data frame with 165 observations on the following 4 variables.

Subject a numeric vector giving the subject identifier

Dose a numeric vector giving the dose group

Time a numeric vector giving the observation times

Conc a numeric vector giving the observed concentration

Source

Simulated from `pkData`

`pkData`

Typical PK data

Description

Typical PK data

Usage

`pkData`

Format

A data frame with 165 observations on the following 4 variables.

Subject a numeric vector giving the subject identifier

Dose a numeric vector giving the dose group

Time a numeric vector giving the observation times

Conc a numeric vector giving the observed concentration

Source

Simulated data

policyData

Insurance Policy Data

Description

Insurance Policy Data

Usage

policyData

Format

A data frame with 926 observations on the following 13 variables.

Year The four digit year of the policy

PolicyNo The policy number

TotalPremium The total insurance premium

BonusMalus Discount level

WeightClass The weight class of the car

Region Region of the car owner

Age Age of the main driver

Mileage Estimated annual mileage

Usage Car usage

PremiumClass Class of the car

NoClaims Number of previous claims

GrossIncurred Claim cost

Exposure How long they have been driving

Source

Simulated based on details of how to simulate car insurance data in Modern Actuarial Risk Theory Using R 2nd Edition (Rob Kaas, Marc Goovaerts, Jan Dhaene, Michel Denuit)

qtpk2	<i>Typical PK data</i>
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Description

Typical PK data

Usage

qtpk2

Format

A data frame with 2061 observations on the following 8 variables.

subjid A numeric vector giving the subject ID

treat A factor giving the treatment

time A numeric vector giving the observation times

qt A numeric vector giving the QT interval value

qtcB A numeric vector giving corrected QT interval

hr A numeric vector giving the heart rate

rr A numeric vector giving the R-R interval

sex A factor giving the subject sex

Source

A subset of the data qtpk originally provided in the QT package

runData	<i>An example of NONMEM run data</i>
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Description

An example of NONMEM run data

Usage

runData

Format

A data frame with 73 observations on the following 10 variables.

ID a numeric vector giving the subject ID
 DAY a numeric vector giving the day of the observation
 CL a numeric vector giving the clearance value
 V a numeric vector giving the volume of distribution
 WT a numeric vector giving the weight
 DV a numeric vector giving the dependent variable
 IPRE a numeric vector giving the individual prediction
 PRED a numeric vector giving the population prediction
 RES a numeric vector giving the residual
 WRES a numeric vector giving the weighted residual

Source

Simulated Data

tubeData	<i>London Tube Performace data</i>
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Description

London Tube Performace data

Usage

tubeData

Format

A data frame with 1050 observations on the following 9 variables.

Line A factor with 10 levels, one for each London tube line
 Month A numeric vector indicating the month of the observation
 Scheduled A numeric vector giving the scheduled running time
 Excess A numeric vector giving the excess running time
 TOTAL A numeric vector giving the total running time
 Opened A numeric vector giving the year the line opened
 Length A numeric vector giving the line length
 Type A factor indicating the type of tube line
 Stations A numeric vector giving the number of stations on the line

Source

This data was taken from "<http://data.london.gov.uk/datafiles/transport/assembly-tube-performance.xls>"

xpData	<i>Typical NONMEM data</i>
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Description

Typical NONMEM data

Usage

xpData

Format

A data frame with 1061 observations on the following 23 variables.

ID a numeric vector giving the subject ID
SEX a numeric vector giving the subject sex
RACE a numeric vector giving the subject race
SMOK a numeric vector giving the subject smoking status
HCTZ a numeric vector giving the treatment status
PROP a numeric vector giving the treatment status
CON a numeric vector giving the treatment status
DV a numeric vector giving the dependent variable
PRED a numeric vector giving population prediction
RES a numeric vector giving the residual
WRES a numeric vector giving the weighted residual
AGE a numeric vector giving the subject age
HT a numeric vector giving the subject height
WT a numeric vector giving the subject weight
SECR a numeric vector giving the serum creatinine value
OCC a numeric vector giving the occasion
TIME a numeric vector giving the time of the observation time
IPRE a numeric vector giving individual prediction
IWRE a numeric vector giving the individual weighted residual
SID a numeric vector giving the site ID
CL a numeric vector giving the clearance
V a numeric vector giving the volume of distribution
KA a numeric vector giving the absorption rate constant

Source

Simulated Data

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