Package 'TSTutorial'

July 21, 2025

Type Package

Title Fitting and Predict Time Series Interactive Laboratory

Version 1.2.7

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Description Interactive laboratory of Time Series based in Box-Jenkins methodology.

License GPL (>= 2.0)

Depends methods, grDevices, graphics, stats, tools, MASS

Encoding UTF-8

LazyData true

NeedsCompilation no

Repository CRAN

Date/Publication 2023-09-04 15:10:06 UTC

Contents

TSTutorial-package   *Time Series Tutorial*

Description

`TSTutorial` packages is an implementation for learning fitting and getting predictions of Time Series with the methology Box-Jenkins. This consist on an interactive laboratory showing differents menus which contain all the steps of the methodology. Furthemore, these menus, and its options, have some explanatory texts and suggestions (based in created tests) to facilitate the learning process.

Details

Package:	TSTutorial
Type:	Package
Version:	1.2.7
Date:	2023-09-04
License:	GPL (>= 2)
LazyLoad:	yes
Depends:	methods, grDevices, graphics, stats, snowfall, MASS

Overview

The use of this package is very simple, to start the tutorial only is required a time series in the method `TSTutorial`.

Moreover, the package includes three time series as data examples to use them with the function `TSTutorial`.

Author(s)

Author and maintainer: Alberto Lopez Moreno <bertolomo@gmail.com>

See Also

Overview: `TSTutorial-package`.
Methods : `TSTutorial`.

AirBcn	*Monthly Airline Passenger Numbers 1990-2009 of Barcelona*

Description

Monthly totals of international airline passengers of Barcelona, 1990 to 2009.

Usage

```
AirBcn
```

Format

A monthly time series, in thousands.

Source

Ministerio de Fomento (www.fomento.es)

Examples

```
data(AirBcn)
plot(AirBcn)
```

TSTutorial	*Interactive Laboratory of Time Series*

Description

TSTutorial is an interactive laboratory for learning fitting and getting predictions from Time Series.

It consist on an ordered collections of menus where it is explained the Box-Jenkins methodology. The principal objective of the function is to be a useful tool in the process of learning this methodology.

Howerver, if you are an expert user who knows the Box-Jenkins methodology, you can use TSTutorial to work with your time series because it avoids you to write all the code.

To know more how to use TSTtutorial you can read the vignette "Tutorial" of this package or directly read it executing the function and selecting the third option (3. Tutorial) of the first menu.

Usage

```
TSTutorial(series, student, report, contRep)
```

Arguments

`series`	Object of clase .ts (Time Series)
`student`	A logical which indicates if you want the student mode (T) or expert mode (F). See "Details".
`report`	A logical list which indicates if you want to get a report of the session after finish it, and more options. See "Details".
`contRep`	A list containing some parameters to modify parameters of the report, introduce an .tex file modified by the user, etc. See "Details" for more information.

Details

The `student` has two options:

T: the laboratory is for students. It shows help texts and suggestions to teach the Box-Jenkins method.

F: the laboratory is for expert users. Only shows the basic information avoiding all the helps and suggestions. It is an useful tool for Time Series advanced users to avoid to write their own scripts.

The `report` has three options:

`report`: a logical value indicating (with the value T) to the program to create a .pdf file with the name of the time series introduced in `TStutorial` and it is saved in the current working directory.

`comment`: a logical value inidicating (with the value T) to let to the user write comments during the session which will appear in the report. By default, and when report is F, its value is F.

`files`: a logical value inidicating (with the value T) to not delete the files which are created during the report building process. In this case, the only file created will be the .pdf file . By default, and when report is F, its value is F.

The `contRep` has three options:

`fil`: a logical value indicating (with the value T) whether the user set a new .tex file introduced in `name`. By default is F.

`name`: the name of the .tex file which the head of the report is to be read from. By default is NULL.

`maingraph`: The size of the graphics that are plotted in one column.

`twograph`: The size of the graphics that are plotted in two columns.

Value

None(invisible NULL).

Author(s)

Author and maintainer: Alberto Lopez Moreno

References

Box Jenkins

See Also

Overview: `TSTutorial-package`.
Methods : `TSTutorial`.

Examples

```
#data(AirBcn)
#TSTutorial(AirBcn)
```

Turismes	*Monthly Made Vehicles in Spain 1990-2008.*

Description

Monthly made vehicles in Spain, Genuary 1990 to August 2008.

Usage

```
Turismes
```

Format

A monthly time series, in thousands.

Source

Instituto Nacional de Estadistica (www.ine.es).

Examples

```
data(Turismes)
plot(Turismes)
```

Victimes	*Monthly Traffic Deads Number 1993-2008 of Spain.*

Description

Monthly totals of traffic deads in road and urban accidents of Spain, 1993 to 2008.

Usage

```
Victimes
```

Format

A monthly time series, in thousands.

Source

Direccion General de Trafico (www.dgt.es)

Examples

```
data(Victimes)
plot(Victimes)
```

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