

Package ‘PredictTestbench’

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Type Package

Title Test Bench for Comparison of Data Prediction Models

Version 1.1.3

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Description Provides a Testbench for comparison of prediction models. This package is inspired from 'imputeTestbench' package <<https://cran.r-project.org/package=imputeTestbench>>. It compares prediction models with reference to RMSE, MAE or MAPE parameters. It allows to add new proposed methods to test bench and to compare with other methods. The function 'prediction_append()' allows to add multiple numbers of methods to the existing methods available in test bench. One/two step ahead prediction is also possible in the testbench.

License GPL

BugReports <https://github.com/neerajdhanraj/PredictTestbench/issues>

URL <http://www.neerajbokde.com/cran/predicttestbench>

Imports ggplot2, reshape2, PSF, forecast, methods, stats,
imputeTestbench

LazyData TRUE

RoxygenNote 5.0.1

Suggests knitr, rmarkdown

NeedsCompilation no

Repository CRAN

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plot_predictions	<i>Function to plot the Error Comparison</i>
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Description

Function to plot the Error Comparison

Usage

```
plot_predictions(dataIn)
```

Arguments

dataIn as input data in list format (returned by function prediction_errors())

Value

It returns the Error comparison for different methods

Examples

```
# aa <- prediction_errors()
# bb <- plot_predictions(aa)
# bb
```

prediction_append	<i>To attach and compare new method to existing comparison study done with function 'impute_errors()'</i>
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Description

To attach and compare new method to existing comparison study done with function 'impute_errors()'

Usage

```
prediction_append(existing_method, dataIn, nextVal, errorParameter, MethodPath,
  MethodName)
```

Arguments

existing_method	as Error observations for different methods
dataIn	as input time series for testing
nextVal	as an integer to decide number of values to predict
errorParameter	as type of error calculation (RMSE, MAE or MAPE)
MethodPath	as location of function for proposed imputation method
MethodName	as name for function for proposed imputation method

Value

Returns error comparison for imputation methods

Examples

```
#Kindly, refer "Vignette" document
```

prediction_errors	<i>Function working as testbench for comparison of Prediction algorithms</i>
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Description

Function working as testbench for comparison of Prediction algorithms

Usage

```
prediction_errors(dataIn, nextVal, errorParameter, MethodPath, MethodName)
```

Arguments

dataIn	as input time series for testing
nextVal	as an integer to decide number of values to predict
errorParameter	as type of error calculation (RMSE, MAE or MAPE)
MethodPath	as location of function for the proposed imputation method
MethodName	as name for function for the proposed imputation method

Value

Returns error comparison for imputation methods

Examples

```
# aa <- prediction_errors(nextVal = 10)  
# aa
```

prediction_remove	<i>Removes unwanted method from already existing methods in Test bench</i>
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Description

Removes unwanted method from already existing methods in Test bench

Usage

```
prediction_remove(existing_method, index_number)
```

Arguments

existing_method	as Error observations for different methods
index_number	as index number of unwanted method in study

Value

it removes unwanted method from test bench and returns other method errors

step_ahead_forecast	<i>Function to calculate the step ahead forecasting for a proposed Prediction method</i>
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Description

Function to calculate the step ahead forecasting for a proposed Prediction method

Usage

```
step_ahead_forecast(dataIn, trainedData, MethodPath, errorParameter, stepSize)
```

Arguments

dataIn	as input time series for testing
trainedData	as partition point of input data 'dataIn'
MethodPath	as as location of function for the proposed imputation method
errorParameter	as type of error calculation (RMSE, MAE or MAPE)
stepSize	as interval at which step by step prediction will be done (Possible values are 1 & 2)

Value

returns the plot for one/two step ahead prediction along with error values decided by 'errorParameter'

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