Package 'AutoPlots'

June 5, 2023

Title AutoPlots

Version 1.0.0

Date 2023-03-15

Maintainer Adrian Antico <adrianantico@gmail.com>

Description R package for generating plots in a simple way

URL https://github.com/AdrianAntico/AutoPlots

BugReports https://github.com/AdrianAntico/AutoPlots/issues

Depends R (>= 4.0.0)

Imports bit64, data.table, echarts4r, dplyr

Suggests knitr, rmarkdown

VignetteBuilder knitr

Contact Adrian Antico

Encoding UTF-8

Language en-US

LazyData true

NeedsCompilation no

RoxygenNote 7.2.1

Author Adrian Antico [aut, cre]

R topics documented:

`BuildBinary` *BuildBinary*

Description

Build package binary

Usage

```
BuildBinary(Root = NULL)
```

Arguments

`Root`	NULL will setwd to project root as defined in function

Author(s)

Adrian Antico

See Also

Other Utilities: `Install()`, `UpdateDocs()`

FakeDataGenerator *FakeDataGenerator*

Description

Create fake data for examples

Usage

```
FakeDataGenerator(
  Correlation = 0.7,
  N = 1000L,
  ID = 5L,
  FactorCount = 2L,
  AddDate = TRUE,
  AddComment = FALSE,
  AddWeightsColumn = FALSE,
  ZIP = 5L,
  TimeSeries = FALSE,
  TimeSeriesTimeAgg = "day",
  ChainLadderData = FALSE,
  Classification = FALSE,
  MultiClass = FALSE
)
```

Arguments

Correlation	Set the correlation value for simulated data
N	Number of records
ID	Number of IDcols to include
FactorCount	Number of factor type columns to create
AddDate	Set to TRUE to include a date column
AddComment	Set to TRUE to add a comment column
ZIP	Zero Inflation Model target variable creation. Select from 0 to 5 to create that number of distinctly distributed data, stratifed from small to large
TimeSeries	For testing AutoBanditSarima
TimeSeriesTimeAgg	Choose from "1min", "5min", "10min", "15min", "30min", "hour", "day", "week", "month", "quarter", "year",
ChainLadderData	Set to TRUE to return Chain Ladder Data for using AutoMLChainLadderTrainer
Classification	Set to TRUE to build classification data
MultiClass	Set to TRUE to build MultiClass data

Author(s)

Adrian Antico

Install *Install*

Description

To install the package

Usage

```
Install(Root = NULL)
```

Arguments

Root	NULL will setwd to project root as defined in function

Author(s)

Adrian Antico

See Also

Other Utilities: `BuildBinary()`, `UpdateDocs()`

Plot.Area *Plot.Area*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Area(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Line Plot",
```

```
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  X_Scroll = FALSE,
  Y_Scroll = FALSE,
  TimeLine = TRUE,
  Alpha = 0.5,
  Smooth = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name. You can supply multiple YVars
DualYVar	Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one variable is allowed and when this is set only one YVar is allowed. An error will be thrown if those conditions are not met
GroupVar	One Grouping Variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,

Width	= NULL,
Title	"Title"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	Provide an "Echarts" theme
X_Scroll	logical
Y_Scroll	logical
TimeLine	Logical
Alpha	0 to 1 for setting transparency
Smooth	= TRUE
ShowSymbol	= FALSE
TextColor	"Not Implemented"
Debug	Debugging purposes
Area	logical

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Bar *Plot.Bar*

Description

Build a bar plot by simply passing arguments to a single function

Usage

```
Plot.Bar(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  LabelValues = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
```

```
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
LabelValues	A vector of values. Requires PreAgg to be set to TRUE and you'll need to ensure LabelValues are ordered the same as dt. If NULL and ShowLabels is TRUE, then bar values will be displayed
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Height	= NULL,
Width	= NULL,

Title	title
ShowLabels	logical
Title.YAxis	NULL. If NULL, YVar name will be used
Title.XAxis	NULL. If NULL, XVar name will be used
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.BarPlot3D *Plot.BarPlot3D*

Description

Build a 3D Bar Plot

Usage

```
Plot.BarPlot3D(
  dt,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_Y = 33,
  NumLevels_X = 33,
```

```
  Height = NULL,
  Width = NULL,
  Title = "3D Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  zaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	'mean', 'median', 'sum', 'sd', 'coeffvar', 'count'
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 21
NumLevels_Y	= 20
NumLevels_X	= 20
Height	= NULL,

Width	= NULL,
Title	"Heatmap"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"dark-blue"
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.BinaryMetrics *Plot.BinaryMetrics*

Description

Line plot of evaluation metrics across thresholds

Usage

```
Plot.BinaryMetrics(
  dt = NULL,
  PreAgg = FALSE,
  AggMethod = "mean",
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  Metrics = c("Utility", "MCC", "Accuracy", "F1_Score", "F2_Score", "F0.5_Score",
    "ThreatScore", "TPR", "TNR", "FNR", "FPR", "FDR", "FOR"),
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  CostMatrixWeights = c(0, 1, 1, 0),
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Binary Metrics",
```

```
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = FALSE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
AggMethod	character
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
Metrics	Multiple selection "Utility","MCC","Accuracy","F1_Score","F2_Score","F0.5_Score","ThreatScore"
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	numeric
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
EchartsLabels	character
TimeLine	logical

X_Scroll	logical
Y_Scroll	logical
TextColor	hex character
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.Box *Plot.Box*

Description

Build a box plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Box(
  dt = NULL,
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Box Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TimeLine,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
```

```
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	Logical
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

`Plot.Calibration.Box` *Plot.Calibration.Box*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Calibration.Box(
  dt = NULL,
  SampleSize = 100000L,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  Height = NULL,
  Width = NULL,
  Title = "Calibration Box",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	numeric
AggMethod	character
XVar	X-Axis variable name
YVar	Y-Axis variable name

`GroupVar`	Character variable
`YVarTrans`	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
`XVarTrans`	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
`FacetRows`	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
`FacetCols`	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
`FacetLevels`	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
`NumberBins`	numeric
`Title`	character
`ShowLabels`	character
`Title.YAxis`	character
`Title.XAxis`	character
`EchartsTheme`	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
`TimeLine`	logical
`X_Scroll`	logical
`Y_Scroll`	logical
`TextColor`	"Not Implemented"
`Debug`	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: `Plot.BinaryMetrics()`, `Plot.Calibration.Line()`, `Plot.ConfusionMatrix()`, `Plot.Gains()`, `Plot.Lift()`, `Plot.PartialDependence.Box()`, `Plot.PartialDependence.HeatMap()`, `Plot.PartialDependence.Line()`, `Plot.ROC()`, `Plot.Residuals.Histogram()`, `Plot.Residuals.Scatter()`, `Plot.ShapImportance()`, `Plot.VariableImportance()`

`Plot.Calibration.Line` *Plot.Calibration.Line*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Calibration.Line(
  dt = NULL,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  Height = NULL,
  Width = NULL,
  Title = "Calibration Line",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	numeric
Title	character
ShowLabels	character
Title.YAxis	character

Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	"Not Implemented"
Debug	Debugging purposes
SampleSize	numeric

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.ConfusionMatrix *Plot.ConfusionMatrix*

Description

Generate variable importance plots

Usage

```
Plot.ConfusionMatrix(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_X = 50,
  NumLevels_Y = 50,
  Height = NULL,
  Width = NULL,
```

```
  Title = "Confusion Matrix",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  AggMethod = "count",
  GroupVar = NULL,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	FALSE
XVar	Column name of X-Axis variable. If NULL then ignored
YVar	Column name of Y-Axis variable. If NULL then ignored
ZVar	= "N"
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 21,
NumLevels_X	= NumLevels_Y,
NumLevels_Y	= NumLevels_X,
Title	title
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""

TimeLine	logical
TextColor	'darkblue'
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
GroupVar	= NULL
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Examples

```
## Not run:

# Debugging
dt <- data.table::fread(file.choose())
XVar <- c("Brand", "Category")
YVar <- "ClassTarget"
ZVar <- "p1"
YVarTrans <- "Identity"
XVarTrans <- "Identity"
ZVarTrans <- "Identity"
FacetRows <- 1
FacetCols <- 1
FacetLevels <- NULL
Height <- NULL
Width <- NULL
Title <- NULL
ShowLabels <- FALSE
Title.YAxis <- NULL
Title.XAxis <- NULL
EchartsTheme <- "macarons"
TimeLine <- FALSE
TextColor <- "white"
AggMethod <- "mean"
Debug <- FALSE


## End(Not run)
```

Plot.Copula *Plot.Copula*

Description

Build a copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Copula(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Copula Plot",
  ShowLabels = FALSE,
  AddGLM = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table

SampleSize	An integer for the number of rows to use. Sampled data is randomized. If NULL then ignored
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Requires an XVar and YVar already be defined
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	'Copula Plot'
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	= "dark-blue",
TimeLine	Logical
X_Scroll	logical
Y_Scroll	logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

`Plot.Copula3D` *Plot.Copula3D*

Description

Build a 3D-copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Copula3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  GroupVar = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Copula 3D",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  zaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  zaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

`dt`	source data.table

SampleSize	An integer for the number of rows to use. Sampled data is randomized. If NULL then ignored
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
GroupVar	Requires an XVar and YVar already be defined
Height	= NULL,
Width	= NULL,
Title	'Copula3D Plot'
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	= "dark-blue"
TimeLine	Logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.CorrMatrix *Plot.CorrMatrix*

Description

Build a violin plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.CorrMatrix(
  dt = NULL,
  CorrVars = NULL,
  CorrVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Method = "spearman",
  PreAgg = FALSE,
  Height = NULL,
  Width = NULL,
  Title = "Correlation Matrix",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
CorrVars	vector of variable names
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.

Method	character
PreAgg	logical
Height	= NULL,
Width	= NULL,
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes
CorrVarsTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Density *Plot.Density*

Description

Density plots, by groups, with transparent continuous plots

Usage

```
Plot.Density(
  dt = NULL,
  SampleSize = 100000L,
  YVar = NULL,
  XVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
```

```
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Density Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	= 100000L
YVar	Y-Axis variable name
XVar	X-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	= "Density Plot"
ShowLabels	character
Title.YAxis	character

Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	"white",
Debug	Debugging purposes

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Gains *Plot.Gains*

Description

Create a cumulative gains chart

Usage

```
Plot.Gains(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Gains Plot",
  ShowLabels = FALSE,
  Title.YAxis = "Gain",
  Title.XAxis = "Population",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
```

```
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	numeric
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap() Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.HeatMap *Plot.HeatMap*

Description

Create heat maps with numeric or categorical dt

Usage

```
Plot.HeatMap(
  dt,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_Y = 33,
  NumLevels_X = 33,
  Height = NULL,
  Width = NULL,
  Title = "Heatmap",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
```

```
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	'mean', 'median', 'sum', 'sd', 'coeffvar', 'count'
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 21
NumLevels_Y	= 20
NumLevels_X	= 20
Height	= NULL,
Width	= NULL,
Title	"Heatmap"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"dark-blue"

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Histogram *Plot.Histogram*

Description

Build a histogram plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Histogram(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 30,
  Height = NULL,
  Width = NULL,
  Title = "Histogram",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	An integer for the number of rows to use. Sampled data is randomized. If NULL then ignored
XVar	X-Axis variable name

YVar	Y-Axis variable name
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 30
Height	= NULL,
Width	= NULL,
EchartsTheme	= EchartsTheme,
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
Debug	Debugging purposes
BackGroundColor	color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Lift *Plot.Lift*

Description

Create a cumulative gains chart

Usage

```
Plot.Lift(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Confusion Matrix",
  ShowLabels = FALSE,
  Title.YAxis = "Lift",
  Title.XAxis = "Population",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.

NumberBins	numeric
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.Line *Plot.Line*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Line(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
```

```
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Line Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  X_Scroll = FALSE,
  Y_Scroll = FALSE,
  TimeLine = TRUE,
  Area = FALSE,
  Alpha = 0.5,
  Smooth = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  DarkMode = FALSE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name. You can supply multiple YVars
DualYVar	Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one variable is allowed and when this is set only one YVar is allowed. An error will be thrown if those conditions are not met
GroupVar	One Grouping Variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows

FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	"Title"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	Provide an "Echarts" theme
X_Scroll	logical
Y_Scroll	logical
TimeLine	Logical
Area	logical
Alpha	0 to 1 for setting transparency
Smooth	= TRUE
ShowSymbol	= FALSE
TextColor	"Not Implemented"
DarkMode	FALSE
Debug	Debugging purposes
BackGroundColor	color outside of plot window. Rcolors and hex

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Examples

```
## Not run:
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 1000)

# Build Line plot
AutoPlots::Plot.Line(
  dt = data,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = "DateTime",
  YVar = "Independent_Variable3",
  YVarTrans = "LogPlus1",
```

```
  DualYVar = "Independent_Variable6",
  DualYVarTrans = "LogPlus1",
  GroupVar = NULL,
  EchartsTheme = "macarons")

# Step through function
dt = data
PreAgg = FALSE
AggMethod = "mean"
XVar = "DateTime"
YVar = "Independent_Variable1"
YVarTrans = "Identity"
DualYVar = "Independent_Variable4"
DualYVarTrans = "Identity"
XVarTrans = "Identity"
GroupVar = "Factor_1"
FacetRows = 1
FacetCols = 1
FacetLevels = NULL
Height = NULL
Width = NULL
Title = 'Line Plot'
ShowLabels = FALSE
Title.YAxis = NULL
Title.XAxis = NULL
EchartsTheme = "macarons"
X_Scroll = FALSE
Y_Scroll = FALSE
TimeLine = TRUE
Area = FALSE
Alpha = 0.50
Smooth = TRUE
ShowSymbol = FALSE
TextColor =        "white"
title.fontSize = 22
title.fontWeight = "bold"
title.textShadowColor = '#63aeff'
title.textShadowBlur = 3
title.textShadowOffsetY = 1
title.textShadowOffsetX = -1
xaxis.fontSize = 14
yaxis.fontSize = 14
xaxis.rotate = 0
yaxis.rotate = 0
ContainLabel = TRUE
DarkMode = FALSE
Debug = FALSE

## End(Not run)
```

Plot.PartialDependence.Box

Plot.PartialDependence.Box

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.Box(
  dt = NULL,
  PreAgg = FALSE,
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Partial Dependence Box",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = FALSE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	numeric
AggMethod	character
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
EchartsLabels	character
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	hex character
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.PartialDependence.HeatMap

Plot.PartialDependence.HeatMap

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.HeatMap(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Partial Dependence Heatmap",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.

NumberBins	numeric
AggMethod	character
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
EchartsLabels	character
TimeLine	logical
X_Scroll	= TRUE,
Y_Scroll	= TRUE,
TextColor	hex character
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.PartialDependence.Line

Plot.PartialDependence.Line

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.Line(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
```

```
  FacetLevels = NULL,
  GroupVar = NULL,
  NumberBins = 20,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Partial Dependence Line",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
GroupVar	Character variable
NumberBins	numeric
AggMethod	character
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""

EchartsLabels	character
TimeLine	logical
X_Scroll	= TRUE,
Y_Scroll	= TRUE,
TextColor	hex character
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende
Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.Pie *Plot.Pie*

Description

Build a pie chart by simply passing arguments to a single function

Usage

```
Plot.Pie(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
```

```
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Height	= NULL,
Width	= NULL,
Title	title
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" cut","fruit","gray","green","halloween","helianthus","infographic","inspired","jazz","london","dark" passion","red-velvet","red","roma","royal","sakura","shine","tech-blue","vintage","walden","wef","v
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	'darkblue'
title.fontSize	Defaults to size 22. Numeric. This changes the size of the title.
Debug	Debugging purposes
BackGroundColor	color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.Residuals.Histogram

Plot.Residuals.Histogram

Description

Residuals Plot

Usage

```
Plot.Residuals.Histogram(
  dt = NULL,
  AggMethod = "mean",
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Residuals Histogram",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = "Target - Predicted",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
```

```
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	numeric
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	Not Implemented
Debug	Debugging purposes
ZeroLineColor	character hex
ZeroLineWidth	numeric

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende
Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

`Plot.Residuals.Scatter`

Plot.Residuals.Scatter

Description

Residuals_2 Plot

Usage

```
Plot.Residuals.Scatter(
  dt = NULL,
  AggMethod = "mean",
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Residual Scatterplot",
  ShowLabels = FALSE,
  Title.YAxis = "Target - Predicted",
  Title.XAxis = "Predicted",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name

GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	"Not Implemented"
Debug	Debugging purposes
NumberBins	numeric

Author(s)

Adrian Antico

See Also

Other Model Evaluation: `Plot.BinaryMetrics()`, `Plot.Calibration.Box()`, `Plot.Calibration.Line()`, `Plot.ConfusionMatrix()`, `Plot.Gains()`, `Plot.Lift()`, `Plot.PartialDependence.Box()`, `Plot.PartialDepende` `Plot.PartialDependence.Line()`, `Plot.ROC()`, `Plot.Residuals.Histogram()`, `Plot.ShapImportance()`, `Plot.VariableImportance()`

Plot.River *Plot.River*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.River(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "River Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  X_Scroll = FALSE,
  Y_Scroll = FALSE,
  TimeLine = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name. You can supply multiple YVars
GroupVar	One Grouping Variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows

FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	"Title"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	Provide an "Echarts" theme
X_Scroll	logical
Y_Scroll	logical
TimeLine	Logical
ShowSymbol	= FALSE
TextColor	"Not Implemented"
Debug	Debugging purposes
ZeroLineColor	color
ZeroLineWidth	1
BackGroundColor	color outside of plot window. Rcolors and hex
ChartColor	color
FillColor	color
FillColorReverse	character

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.ROC *Plot.ROC*

Description

ROC Plot

Usage

```
Plot.ROC(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "ROC Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows

FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
AggMethod	character
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes
NumberBins	numeric

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende Plot.PartialDependence.Line(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

`Plot.Scatter` *Plot.Scatter*

Description

Build a copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Scatter(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
```

```
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Scatter Plot",
  ShowLabels = FALSE,
  AddGLM = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  tooltip.trigger = "axis",
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,

Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	character hex
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.StackedBar(), Plot.Step()

Plot.Scatter3D *Plot.Scatter3D*

Description

Build a 3D-copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Scatter3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
```

```
  Title = "3D Scatter",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  zaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  zaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	An integer for the number of rows to use. Sampled data is randomized. If NULL then ignored
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
GroupVar	Requires an XVar and YVar already be defined
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	'Violin Plot'
ShowLabels	character

Title.YAxis	character
Title.XAxis	character
EchartsTheme	= "macaron"
TimeLine	Logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()

Plot.ShapImportance *Plot.ShapImportance*

Description

Plot.ShapImportance variable importance

Usage

```
Plot.ShapImportance(
  dt,
  PreAgg = FALSE,
  AggMethod = "meanabs",
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_X = 33,
  NumLevels_Y = 33,
  Height = NULL,
  Width = NULL,
  Title = "Shap Importance",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
```

```
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	"mean", "median", "sum", "sd", "skewness","kurtosis", "coeffvar", "meanabs", "medianabs", "sumabs", "sdabs", "skewnessabs", "kurtosisabs", "CoeffVarabs"
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 21
NumLevels_X	= 20
NumLevels_Y	= 20
Title	"Heatmap"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"dark-blue"
Debug	= FALSE

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende
Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.VariableImportance()

`Plot.StackedBar` *Plot.StackedBar*

Description

Build a stacked bar plot vs a grouped bar plot

Usage

```
Plot.StackedBar(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Stacked Bar",
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  ShowLabels = FALSE,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

`dt`	source data.table
`PreAgg`	logical
`XVar`	X-Axis variable name

YVar	Y-Axis variable name
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Height	NULL
Width	NULL
Title	title
Title.YAxis	NULL. If NULL, YVar name will be used
Title.XAxis	NULL. If NULL, XVar name will be used
ShowLabels	logical
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.Step()

`Plot.StandardPlots` *Plot.StandardPlots*

Description

Helper for standard plots

Usage

```
Plot.StandardPlots(
  dt = NULL,
  PreAgg = FALSE,
  PlotType = "Scatter",
  SampleSize = 100000L,
  AggMethod = "mean",
  NumberBins = 30,
  YVar = NULL,
  DualYVar = NULL,
  XVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = NULL,
  DualYVarTrans = NULL,
  XVarTrans = NULL,
  ZVarTrans = NULL,
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  Title = NULL,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  NumLevels_Y = 75,
  NumLevels_X = 40,
  TextColor = "white",
  FontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	FALSE
PlotType	character
SampleSize	character
AggMethod	character

NumberBins	For histograms
YVar	Y-Axis variable name
DualYVar	Secondary Axis for Line, Step, and Area plots
XVar	X-Axis variable name
ZVar	Z-Axis variable name
GroupVar	Character variable variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	NULL or valid css unit
Width	NULL or valid css unit
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	character
Title	character
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
TextColor	character
FontSize	numeric
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Auto Plotting: `Plots.ModelEvaluation()`

Plot.Step *Plot.Step*

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Step(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Line Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  X_Scroll = FALSE,
  Y_Scroll = FALSE,
  TimeLine = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name. You can supply multiple YVars
DualYVar	Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one variable is allowed and when this is set only one YVar is allowed. An error will be thrown if those conditions are not met
GroupVar	One Grouping Variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Height	= NULL,
Width	= NULL,
Title	"Title"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	Provide an "Echarts" theme
X_Scroll	logical
Y_Scroll	logical
TimeLine	Logical
ShowSymbol	= FALSE
TextColor	"Not Implemented"
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar()

Plot.Stock *Plot.Stock*

Description

Create a candlestick plot for stocks. See https://plotly.com/r/figure-labels/

Usage

```
Plot.Stock(
  StockDataOutput,
  Type = "candlestick",
  Metric = "Stock Price",
  Width = NULL,
  Height = NULL,
  EchartsTheme = "macarons",
  TextColor = "white",
  ShadowBlur = 0,
  ShadowColor = "black",
  ShadowOffsetX = 0,
  ShadowOffsetY = 0,
  title.fontSize = 14,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  Color = "green",
  Color0 = "red",
  BorderColor = "transparent",
  BorderColor0 = "transparent",
  BorderColorDoji = "transparent",
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

StockDataOutput	PolyOut returned from StockData()
Type	'candlestick', 'ohlc'
Width	= "1450px"
Height	= "600px"
EchartsTheme	= "macarons"
TextColor	= "white"
ShadowBlur	= 5. Chart boxes' shadow blur amount. This attribute should be used along with shadowColor,shadowOffsetX, shadowOffsetY to set shadow to component
ShadowColor	"black"

```
ShadowOffsetX   0
ShadowOffsetY   0
title.fontSize  = 22
title.fontWeight
                = "bold", # norma
title.textShadowColor
                = '#63aeff'
title.textShadowBlur
                = 3
title.textShadowOffsetY
                = 1
title.textShadowOffsetX
                = -1
xaxis.fontSize  = 14
yaxis.fontSize  = 14
```

Author(s)

Adrian Antico

See Also

Other Stock Plots: `StockData()`

`Plot.VariableImportance` *Plot.VariableImportance*

Description

Generate variable importance plots

Usage

```
Plot.VariableImportance(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Variable Importance Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
```

```
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt	source data.table
XVar	Column name of X-Axis variable. If NULL then ignored
YVar	Column name of Y-Axis variable. If NULL then ignored
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Title	title
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
X_Scroll	logical
Y_Scroll	logical
TextColor	'darkblue'
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDepende
Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance()

Plots.ModelEvaluation *Plots.ModelEvaluation*

Description

Plot helper for model evaluation plot types

Usage

```
Plots.ModelEvaluation(
  dt = NULL,
  AggMethod = "mean",
  SampleSize = 100000L,
  PlotType = NULL,
  YVar = NULL,
  TargetLevel = NULL,
  ZVar = NULL,
  XVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumLevels_Y = 75,
  NumLevels_X = 40,
  Height = NULL,
  Width = NULL,
  Title = NULL,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  TextColor = "white",
  FontSize = 14L,
  NumberBins = 20,
  Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
SampleSize	100000L
PlotType	character
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
XVar	X-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumLevels_Y	= 75
NumLevels_X	= 40
Height	= NULL,
Width	= NULL,
EchartsTheme	"auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo" #' "essos","forest","fresh-cut","fruit","gray","green","halloween","helianthus","infographic","inspire #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum",""
TimeLine	logical
TextColor	hex
NumberBins	numeric
Debug	Debugging purposes

Author(s)

Adrian Antico

See Also

Other Auto Plotting: `Plot.StandardPlots()`

StockData *StockData*

Description

Create stock data for plotting using Plot.Stock()

Usage

```
StockData(
  PolyOut = NULL,
  Symbol = "TSLA",
  CompanyName = "Tesla Inc. Common Stock",
  Metric = "Stock Price",
  TimeAgg = "days",
  StartDate = "2022-01-01",
  EndDate = Sys.Date(),
  APIKey = NULL,
  timeElapsed = 61,
  Debug = FALSE
)
```

Arguments

PolyOut	NULL. If NULL, data is pulled. If supplied, data is not pulled.
Symbol	ticker symbol string
CompanyName	company name if you have it. ends up in title, that is all
Metric	Stock Price, Percent Returns (use symbol for percent), Percent Log Returns (use symbol for percent), Index, Quadratic Variation
TimeAgg	= 'days', 'weeks', 'months'
StartDate	Supply a start date. E.g. '2022-01-01'
EndDate	Supply an end date. E.g. 'Sys.Date()'
APIKey	Supply your polygon API key
timeElapsed	= 60
Type	'candlestick', 'ohlc'

Author(s)

Adrian Antico

See Also

Other Stock Plots: Plot.Stock()

UpdateDocs *UpdateDocs*

Description

Update helf files and reference manual

Usage

```
UpdateDocs(BuildVignette = FALSE, Root = NULL)
```

Author(s)

Adrian Antico

See Also

Other Utilities: `BuildBinary()`, `Install()`

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