Package 'AutoPlots'

March 15, 2023

Water 13, 2023
Title AutoPlots
Version 1.0.0
Date 2023-03-15
Maintainer Adrian Antico <adrianantico@gmail.com></adrianantico@gmail.com>
Description R package for generating plots in a simple way
<pre>URL https://github.com/AdrianAntico/AutoPlots</pre>
BugReports https://github.com/AdrianAntico/AutoPlots/issues
Depends R (>= $4.0.0$)
Imports bit64, data.table, lubridate, ggplot2, plotly, echarts4r
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:
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Plot.Calibration.Box
Plot.Calibration.Line
Plot.ConfusionMatrix

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Builo	dBinary 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()

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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

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

Plot.Area

```
Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "macarons",
 X_Scroll = FALSE,
 Y_Scroll = FALSE,
 TimeLine = TRUE,
 Alpha = 0.5,
  Smooth = TRUE,
  ShowSymbol = FALSE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

Engine "Echarts" or "Plotly"

XVar X-Axis variable name

YVar Y-Axis variable name

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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.

 $\label{eq:height} \begin{array}{ll} \mbox{Height} & = \mbox{NULL}, \\ \mbox{Width} & = \mbox{NULL}, \end{array}$

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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

BackGroundColor

color outside of plot window. Rcolors and hex

ChartColor color FillColor color FillColorReverse

character

GridColor color

TextColor "Not Implemented"

ZeroLineColor color ZeroLineWidth 1

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.Violin()

Plot.Bar Plot.Bar

Description

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

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Usage

```
Plot.Bar(
  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,
  Engine = "Echarts",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

Plot.Bar 7

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**YVarTrans** ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans**

ize", "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.

Choose from 'mean', 'sum', 'sd', and 'median' AggMethod

= NULL,Height 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

'Plotly' or "Echarts" Engine

"auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" EchartsTheme

#' "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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

'lightsteelblue' ChartColor

FillColor 'gray' FillColorReverse

character

GridColor 'white' TextColor 'darkblue' = '#ffff' ZeroLineColor

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.Violin()
```

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Plot.BarPlot3D

Plot.BarPlot3D

Description

Build a 3D Bar Plot

```
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,
  Engine = "Plotly",
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  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,
  Debug = FALSE
```

Plot.BarPlot3D

)

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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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.

 $\begin{array}{lll} \mbox{NumberBins} & = 21 \\ \mbox{NumLevels_Y} & = 20 \\ \mbox{NumLevels_X} & = 20 \\ \mbox{Height} & = \mbox{NULL}, \\ \mbox{Width} & = \mbox{NULL}, \end{array}$

Title "Heatmap"
ShowLabels character
Title.YAxis character
Title.XAxis character

Engine "plotly", "echarts4r"

EchartsTheme "dark-blue"

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor = '#001534' FillColor = "#0066ff"

FillColorReverse

character
GridColor = '#ffffff'

Debugging purposes

Author(s)

Adrian Antico

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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.Violin()
```

Plot.BinaryMetrics

Plot.BinaryMetrics

Description

Line plot of evaluation metrics across thresholds

```
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,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
```

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```
TextColor = "white",
ZeroLineColor = "#ffff",
ZeroLineWidth = 1.25,
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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "

EchartsLabels character

TimeLine logical X_Scroll logical Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

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```
ChartColor
                 hex character
FillColor
                 hex character
FillColorReverse
                 hex character
GridColor
                 hex character
TextColor
                 hex character
                 hex character
ZeroLineColor
ZeroLineWidth
                 numeric
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.

```
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,
  Engine = "Plotly",
  EchartsTheme = "macarons",
```

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```
TimeLine = TimeLine,
 X_Scroll = TRUE,
 Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white"
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

source data.table dt

SampleSize numeric

X-Axis variable name XVar Y-Axis variable name YVar Character variable

GroupVar

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**YVarTrans**

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a FacetRows

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

"Echarts" or "Plotly" Engine

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EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "

TimeLine Logical X_Scroll logical Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex FillColor character hex

FillColorReverse

character hex
GridColor character hex
TextColor character hex
ZeroLineColor character hex

Debugging purposes

numeric

Author(s)

Adrian Antico

ZeroLineWidth

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.Violin()
```

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

```
Plot.Calibration.Box(
  dt = NULL,
  SampleSize = 100000L,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
```

Plot.Calibration.Box 15

```
XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 NumberBins = 21,
 Height = NULL,
 Width = NULL,
 Title = "Calibration Plot",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 Engine = "Echarts",
 EchartsTheme = "macarons",
 TimeLine = FALSE,
 X_Scroll = TRUE,
  Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white",
 ZeroLineColor = "#ffff",
 ZeroLineWidth = 1.25,
 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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

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Title.XAxis character

Engine "Echarts" or "Plotly"

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex FillColor character hex

FillColorReverse

character hex

GridColor character hex

TextColor "Not Implemented"

ZeroLineColor character hex

ZeroLineWidth numeric

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

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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 Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Echarts",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white"
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  Debug = FALSE
)
```

source data.table

Arguments dt

FacetCols

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

a numeric value for the number of output grid columns

Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

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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

Engine "Echarts" or "Plotly"

3

"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

BackGroundColor

EchartsTheme

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex
FillColor character hex

FillColorReverse

character hex

GridColor character hex

TextColor "Not Implemented"

ZeroLineColor character hex

ZeroLineWidth numeric

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 19

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,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  AggMethod = "count",
  GroupVar = NULL,
  Debug = FALSE
)
```

Arguments

dt source data.table

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PreAgg **FALSE**

XVar Column name of X-Axis variable. If NULL then ignored YVar Column name of Y-Axis variable. If NULL then ignored

7Var

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans**

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply FacetCols

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

'Plotly' or "Echarts" Engine

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 "bazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","

TimeLine logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

'gray' FillColor

FillColorReverse

character hex

GridColor 'white' TextColor 'darkblue' = '#ffff' ZeroLineColor

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

GroupVar = NULL

Debug Debugging purposes Plot.Copula 21

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()
```

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.

```
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,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white"
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  yaxis.fontSize = 14,
```

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

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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 = "Plotly", Engine EchartsTheme = "dark-blue",

TimeLine Logical X_Scroll logical Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray' FillColorReverse

character

Plot.Copula3D 23

```
GridColor 'white'
TextColor 'darkblue'
ZeroLineColor = '#ffff',
ZeroLineWidth = 2,
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.Violin()
```

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.

```
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,
  Engine = "Plotly",
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
```

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```
FillColor = "#0066ff",
FillColorReverse = "#97ff00".
GridColor = "white",
TextColor = "white",
ZeroLineColor = "#ffff",
ZeroLineWidth = 1.25,
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,
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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

 $\label{eq:height} \begin{array}{ll} \mbox{Height} & = \mbox{NULL}, \\ \mbox{Width} & = \mbox{NULL}, \end{array}$

Title 'Copula3D Plot'

ShowLabels character
Title.YAxis character
Title.XAxis character
Engine = "Plotly"
EchartsTheme = "dark-blue"

Plot.CorrMatrix 25

```
TimeLine Logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character
```

ChartColor 'lightsteelblue'
FillColor 'gray'

FillColorReverse

character

GridColor 'white'
TextColor 'darkblue'
ZeroLineColor = '#ffff',
ZeroLineWidth = 2,

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.Violin()
```

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.

```
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,
```

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```
Engine = "Plotly",
 EchartsTheme = "macarons",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
  ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
  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

Engine "Echarts" or "Plotly"

 $\label{thm:condition} \textbf{EchartsTheme} \qquad \textbf{``auritus'', ``azul'', ``bee-inspired'', ``blue'', ``caravan'', ``carp'', ``chalk'', ``cool'', ``dark-bold'', ``dark'', ``eduardo'''} \\$

"" "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 logicalY_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character

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```
ChartColor character hex

FillColor character hex

FillColorReverse character

GridColor character hex

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.Violin()
```

Plot.Density

Plot.Density

Description

Density plots, by groups, with transparent continuous plots

```
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,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
```

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```
Y_Scroll = TRUE,
BackGroundColor = "#6a6969",
ChartColor = "#001534",
FillColor = "#0066ff",
FillColorReverse = "#97ff00",
GridColor = "white",
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 = 100000L

YVar Y-Axis variable name
XVar X-Axis variable name
GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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

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```
X_Scroll
                  logical
                  logical
Y_Scroll
BackGroundColor
                  color outside of plot window. Rcolors and hex outside of plot window. Rcolors
                  and hex character
                  "#001534",
ChartColor
FillColor
                  "#0066ff",
FillColorReverse
                  "#97ff00",
                  "white",
{\tt GridColor}
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.Violin()
```

Plot.Gains

Plot.Gains

Description

Create a cumulative gains chart

```
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 = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
```

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```
EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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

Plot.HeatMap 31

```
Y_Scroll logical BackGroundColor
```

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex
FillColor character hex

FillColorReverse

character hex
GridColor character hex
TextColor character hex
ZeroLineColor character hex
ZeroLineWidth numeric

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

```
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,
```

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```
NumLevels_X = 33,
 Height = NULL,
 Width = NULL,
 Title = "Heatmap",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 Engine = "Plotly",
 EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
  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
)
```

source data.table

Arguments dt

NumberBins

NumLevels_Y

= 21

= 20

'mean', 'median', 'sum', 'sd', 'coeffvar', 'count' AggMethod XVar X-Axis variable name Y-Axis variable name YVar ZVar Z-Axis variable name "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**YVarTrans** ize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans** ize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**ZVarTrans** ize", "BoxCox", "YeoJohnson" Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a FacetRows 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.

Plot.Histogram 33

```
NumLevels_X
                 = 20
                 = NULL,
Height
Width
                 = NULL,
Title
                 "Heatmap"
ShowLabels
                 character
Title.YAxis
                 character
Title.XAxis
                 character
                  "plotly", "echarts4r"
Engine
                 "dark-blue"
EchartsTheme
BackGroundColor
                 color outside of plot window. Rcolors and hex outside of plot window. Rcolors
                 and hex character
                 = '#001534'
ChartColor
FillColor
                 = "#0066ff"
FillColorReverse
                 character
{\sf GridColor}
                 = '#ffffff'
```

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.Violin()
```

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.

```
Plot.Histogram(
  dt = NULL,
   SampleSize = 30000L,
   XVar = NULL,
   YVar = NULL,
   GroupVar = NULL,
   YVarTrans = "Identity",
   XVarTrans = "Identity",
   FacetRows = 1,
   FacetCols = 1,
```

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```
FacetLevels = NULL,
 NumberBins = 30,
 Height = NULL,
 Width = NULL,
 Title = "Histogram",
 ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 Engine = "Plotly",
 EchartsTheme = "macarons",
 TimeLine = FALSE,
 X_Scroll = TRUE,
 Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white",
 ZeroLineWidth = 1.25,
 ZeroLineColor = "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.

Plot.Lift 35

 $\label{eq:NumberBins} \begin{array}{ll} \mbox{NumberBins} & = 30 \\ \mbox{Height} & = \mbox{NULL}, \\ \mbox{Width} & = \mbox{NULL}, \end{array}$

Engine "Echarts" or "Plotly"
EchartsTheme = EchartsTheme,

TimeLine logical X_Scroll logical Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray' FillColorReverse

character

GridColor 'white'
TextColor 'darkblue'
ZeroLineWidth = 1.25,
ZeroLineColor = "white",

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.Line(), Plot.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.Violin()

Plot.Lift

Plot.Lift

Description

Create a cumulative gains chart

```
Plot.Lift(
dt = NULL,
PreAgg = FALSE,
XVar = NULL,
YVar = NULL,
ZVar = "N",
GroupVar = NULL,
```

36 Plot.Lift

```
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 = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white"
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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.

Plot.Line 37

NumberBins numeric
Title character
ShowLabels character
Title.YAxis character
Title.XAxis character

Engine "Echarts" or "Plotly"

EchartsTheme "auritus"."azul"."bee

"auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" #', "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "inspired", "inspired", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" #', "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "caravan", "carp", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" #', "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "caravan", "ca

#' "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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex FillColor character hex

FillColorReverse

character hex

GridColor character hex
TextColor character hex
ZeroLineColor character hex
ZeroLineWidth numeric

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

38 Plot.Line

Usage

```
Plot.Line(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  Engine = "Echarts",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "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,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  DarkMode = FALSE,
  Debug = FALSE
)
```

Arguments

```
dt source data.table
AggMethod character
```

Plot.Line 39

PreAgg logical

Engine "Echarts" or "Plotly"

XVar X-Axis variable name

YVar Y-Axis variable name

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

BackGroundColor

color outside of plot window. Rcolors and hex

ChartColor color FillColor color FillColorReverse

character

GridColor color

TextColor "Not Implemented"

ZeroLineColor color
ZeroLineWidth 1
DarkMode FALSE

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.Pie(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.Violin()
```

```
Plot.PartialDependence.Box
```

Plot.PartialDependence.Box

Description

This function automatically builds partial dependence calibration plots

```
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 = "Gains Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
```

```
FillColorReverse = "#97ff00",
GridColor = "white",
TextColor = "white",
ZeroLineColor = "#ffff",
ZeroLineWidth = 1.25,
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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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

 $\verb|#","| jazz"," london"," dark"," macarons"," macarons 2"," mint"," purple-passion"," red-passion"," red-passion"," london"," dark"," macarons 2"," mint"," purple-passion"," red-passion"," red-passio$

velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","

EchartsLabels character
TimeLine logical
X_Scroll logical
Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor hex character
FillColor hex character
FillColorReverse

TITCOTORREVERSE

hex character
GridColor hex character
TextColor hex character
ZeroLineColor hex character
ZeroLineWidth numeric

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

```
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 = "Gains Plot",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
  Title.XAxis = NULL,
 Engine = "Plotly",
 EchartsTheme = "macarons",
 EchartsLabels = FALSE,
 TimeLine = TRUE,
 X_Scroll = TRUE,
  Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white"
 TextColor = "white",
 ZeroLineColor = "#ffff",
 ZeroLineWidth = 1.25,
 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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

"auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo" EchartsTheme #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspire #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "redvelvet","red","roma","royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", " EchartsLabels character logical TimeLine = TRUE, X_Scroll Y_Scroll = TRUE, BackGroundColor color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character ChartColor hex character FillColor hex character FillColorReverse hex character GridColor hex character TextColor hex character ZeroLineColor hex character

Author(s)

Debug

Adrian Antico

ZeroLineWidth

numeric

Debugging purposes

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.Box(), 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

```
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 = "Gains Plot",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 Engine = "Plotly",
 EchartsTheme = "macarons",
 EchartsLabels = FALSE,
 TimeLine = TRUE,
 X_Scroll = TRUE,
 Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
 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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

EchartsTheme "auritus"."azul"."bee-inspired"."blue"."carayan"."carp"

"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,

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor hex character
FillColor hex character

FillColorReverse

hex character

GridColor hex character
TextColor hex character
ZeroLineColor hex character

ZeroLineWidth numeric

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 47

Plot.Pie

Plot.Pie

Description

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

```
Plot.Pie(
  Engine = "Plotly",
  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,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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
```

48 Plot.Pie

Arguments

Engine 'Plotly' or "Echarts" 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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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'

 $\label{eq:height} \begin{array}{ll} \mbox{Height} & = \mbox{NULL}, \\ \mbox{Width} & = \mbox{NULL}, \\ \mbox{Title} & \mbox{title} \end{array}$

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "a

"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", "vintage", "walden", "wef", "walden", "walden", "walden", "walden", "walden", "wef", "walden", "

TimeLine logical X_Scroll logical Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray'
FillColorReverse

character

GridColor 'white'

TextColor 'darkblue'

ZeroLineColor = '#ffff'

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.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.Violin()
```

Plot.Residuals.Histogram

Plot.Residuals.Histogram

Description

Residuals Plot

```
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 = "Calibration Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Echarts",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
```

```
ZeroLineWidth = 1.25,
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 SampleSize numeric

XVar X-Axis variable name
YVar Y-Axis variable name
GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character

Plot.Residuals.Scatter 51

```
ChartColor character hex
FillColor character hex
FillColorReverse character hex
GridColor character hex
TextColor Not Implemented
ZeroLineColor character hex
ZeroLineWidth numeric
```

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.PartialDependence.Box(), Plot.PartialDependence.Line(), Plot.Roc(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Residuals.Scatter

Plot.Residuals.Scatter

Description

Residuals_2 Plot

```
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 = "Calibration Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Echarts",
```

52 Plot.Residuals.Scatter

```
EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine "Echarts" or "Plotly"

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex character

Plot.River 53

```
ChartColor character hex
FillColor character hex
```

FillColorReverse

character hex

GridColor character hex

TextColor "Not Implemented"

ZeroLineColor character hex
ZeroLineWidth numeric

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.PartialDependence.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

```
Plot.River(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  Engine = "Echarts",
  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,
```

54 Plot.River

```
Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "macarons",
 X_Scroll = FALSE,
 Y_Scroll = FALSE,
 TimeLine = TRUE,
  ShowSymbol = FALSE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

Width

Title

= NULL,
"Title"

source data.table dt character AggMethod PreAgg logical "Echarts" or "Plotly" Engine X-Axis variable name XVar Y-Axis variable name YVar 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,

Plot.ROC 55

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme Provide an "Echarts" theme

 X_Scroll logical Y_Scroll logical Y_Scroll Logical Y_Scroll Logical Y_Scroll Y_Scroll Logical Y_Scroll

BackGroundColor

color outside of plot window. Rcolors and hex

ChartColor color FillColorReverse

character

GridColor color

TextColor "Not Implemented"

ZeroLineColor color ZeroLineWidth 1

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.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.Violin()
```

Plot.ROC

Plot.ROC

Description

ROC Plot

```
Plot.ROC(
   dt = NULL,
   SampleSize = 1e+05,
   XVar = NULL,
   YVar = NULL,
   GroupVar = NULL,
   YVarTrans = "Identity",
```

56 Plot.ROC

```
XVarTrans = "Identity",
 FacetRows = 1.
 FacetCols = 1,
 FacetLevels = NULL,
 AggMethod = "mean",
 Height = NULL,
 Width = NULL,
 Title = "Calibration Plot",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 Engine = "Echarts",
 EchartsTheme = "macarons",
 TimeLine = FALSE,
 X_Scroll = TRUE,
  Y_Scroll = TRUE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white",
 ZeroLineColor = "#ffff",
 ZeroLineWidth = 1.25,
 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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Plot.Scatter 57

Engine "Echarts" or "Plotly"

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor character hex FillColor character hex

FillColorReverse

character hex

GridColor character hex
TextColor character hex
ZeroLineColor character hex

ZeroLineWidth numeric

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.PartialDependence.Box(), 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.

58 Plot.Scatter

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,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  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

Plot.Scatter 59

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans** ize", "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. = NULL, Height Width = NULL, Title character ShowLabels character Title.YAxis character Title.XAxis character "Echarts" or "Plotly" Engine 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", "redvelvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum"," TimeLine logical X_Scroll logical Y_Scroll logical BackGroundColor color outside of plot window. Rcolors and hex outside of plot window. Rcolors and hex characterb ChartColor character hex FillColor character hex FillColorReverse character

GridColor character hex
TextColor character hex
ZeroLineColor character hex
ZeroLineWidth numeric

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.Violin()
```

60 Plot.Scatter3D

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.

```
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,
  Engine = "Plotly",
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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,
  Debug = FALSE
```

Plot.Scatter3D 61

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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine = "Plotly"
EchartsTheme = "macaron"

TimeLine Logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray'

FillColorReverse

character

GridColor 'white'
TextColor 'darkblue'
ZeroLineColor = '#fffff',
ZeroLineWidth = 2,

Debugging purposes

62 Plot.ShapImportance

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.Violin()
```

Plot.ShapImportance

Plot.ShapImportance

Description

Plot.ShapImportance variable importance

```
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,
  Engine = "Plotly",
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  Debug = FALSE
)
```

Plot.ShapImportance 63

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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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.

 $\begin{array}{ll} \mbox{NumberBins} & = 21 \\ \mbox{NumLevels_X} & = 20 \\ \mbox{NumLevels_Y} & = 20 \end{array}$

Title "Heatmap"
ShowLabels character
Title.YAxis character
Title.XAxis character

Engine "plotly", "echarts4r"

EchartsTheme "dark-blue"

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

 $\begin{array}{ll} \text{ChartColor} &= \text{'$\#001534'} \\ \text{FillColor} &= \text{"$\#0066ff''} \end{array}$

FillColorReverse

character hex

GridColor = '#ffffff' 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.PartialDependence.Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.VariableImportance()

64 Plot.StackedBar

Plot.StackedBar

Plot.StackedBar

Description

Build a stacked bar plot vs a grouped bar plot

```
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,
  Engine = "Echarts",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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
```

Plot.StackedBar 65

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", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Engine 'Plotly' or "Echarts"

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo"

#''' essos'', "forest'', "fresh-cut'', "fruit'', "gray'', "green'', "halloween'', "helianthus'', "infographic'', "inspired by the property of the property o

#' "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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray'
FillColorReverse

character

GridColor 'white'
TextColor 'darkblue'
ZeroLineColor '#ffff'

Debugging purposes

66 Plot.StandardPlots

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.Violin()
```

Plot.StandardPlots

Plot.StandardPlots

Description

Helper for standard plots

```
Plot.StandardPlots(
  dt = NULL,
  PreAgg = FALSE,
  PlotType = "Scatter",
  SampleSize = 100000L,
  AggMethod = "mean",
  NumberBins = 30,
  YVar = NULL,
  XVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = NULL,
  XVarTrans = NULL,
  ZVarTrans = NULL,
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  PlotEngineType = "Plotly",
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  Title = NULL,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  NumLevels_Y = 75,
  NumLevels_X = 40,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
```

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```
GridColor = "white",
TextColor = "white",
FontSize = 14,
Debug = FALSE
```

Arguments

dt source data.table

FALSE PreAgg PlotType character SampleSize character AggMethod character

NumberBins For histograms

YVar Y-Axis variable name XVar X-Axis variable name Z-Axis variable name ZVar

Character variable variable GroupVar

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**YVarTrans**

ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans**

ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**ZVarTrans**

ize", "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

Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply FacetCols

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.

NULL or valid css unit Height Width NULL or valid css unit "Echarts" or "Plotly"

PlotEngineType

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

Plot.Step

```
ChartColor character
FillColor character
FillColorReverse character
GridColor 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

```
Plot.Step(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  Engine = "Echarts",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "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,
```

Plot.Step 69

```
ShowSymbol = FALSE,
 BackGroundColor = "#6a6969",
 ChartColor = "#001534",
 FillColor = "#0066ff",
 FillColorReverse = "#97ff00",
 GridColor = "white",
 TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

Engine "Echarts" or "Plotly"

XVar X-Axis variable name

YVar Y-Axis variable name

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

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 Y_Scroll logical TimeLine Logical ShowSymbol = FALSE

BackGroundColor

color outside of plot window. Rcolors and hex

ChartColor color FillColor color FillColorReverse

character

GridColor color

TextColor "Not Implemented"

ZeroLineColor color ZeroLineWidth 1

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.Violin()
```

Plot.Stock

Plot.Stock

Description

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

```
Plot.Stock(
   StockDataOutput,
   Type = "candlestick",
   Metric = "Stock Price",
   PlotEngineType = "Echarts",
   Width = NULL,
   Height = NULL,
   EchartsTheme = "macarons",
   TextColor = "white",
   ShadowBlur = 0,
   ShadowColor = "black",
   ShadowOffsetX = 0,
   ShadowOffsetY = 0,
   title.fontSize = 14,
```

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```
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()
                    'candlestick', 'ohlc'
    Type
   PlotEngineType = "Echarts" or "Plotly"
                    = "1450px"
   Width
   Height
                    = "600px"
   EchartsTheme
                    = "macarons"
                    = "white"
    TextColor
    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
    title.fontSize = 22
    title.fontWeight
                    = "bold", # norma
    title.textShadowColor
                    = '#63aeff'
    title.textShadowBlur
    title.textShadowOffsetY
    title.textShadowOffsetX
    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

```
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,
  Engine = "Echarts",
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  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

Column name of Group Variable for distinct colored histograms by group levels GroupVar

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**YVarTrans**

ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans**

ize", "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

'Plotly' or "Echarts" Engine

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 "bazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "

TimeLine logical logical X_Scroll Y_Scroll logical

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray' FillColorReverse

character hex

GridColor 'white' TextColor 'darkblue' = '#ffff' ZeroLineColor

Debug Debugging purposes

Author(s)

Adrian Antico

74 Plot. Violin

See Also

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

Plot.Violin

Plot. Violin

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.Violin(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Violin Plot",
  SampleSize = 1e+05,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white"
  TextColor = "white",
  ZeroLineColor = "#ffff",
  ZeroLineWidth = 1.25,
  Debug = FALSE
)
```

Arguments

dt source data.table

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", "Standard-

ize", "BoxCox", "YeoJohnson"

Plot. Violin 75

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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'

SampleSize An integer for the number of rows to use. Sampled data is randomized. If NULL

then ignored

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor 'lightsteelblue'

FillColor 'gray'

FillColorReverse

character

GridColor 'white'

TextColor 'darkblue'

ZeroLineColor = '#ffff',

 ${\sf ZeroLineWidth} \quad = 2,$

Debugging purposes

ShowLabels character
Title.YAxis character
Title.XAxis 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.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()
```

76 Plots.ModelEvaluation

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,
  PlotEngineType = "Echarts",
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  FontSize = 14L,
  NumberBins = 20,
  Debug = FALSE
)
```

Arguments

```
dt source data.table
AggMethod character
```

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SampleSize 100000L PlotType character

YVar Y-Axis variable name Z-Axis variable name ZVar XVar X-Axis variable name GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-XVarTrans

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "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

Faceting rows x columns is the max number of levels allowed in a grid. If your FacetLevels

GroupVar has more you can supply the levels to display.

NumLevels_Y = 75=40NumLevels_X = NULL, Height Width = NULL,

PlotEngineType "Echarts" or "Plotly"

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

BackGroundColor

color outside of plot window. Rcolors and hex outside of plot window. Rcolors

and hex character

ChartColor hex FillColor hex FillColorReverse hex

GridColorhex TextColor hex NumberBins numeric

Debug Debugging purposes

Author(s)

Adrian Antico

See Also

Other Auto Plotting: Plot.StandardPlots()

78 StockData

StockData

Description

Create stock data for plotting using Plot.Stock()

StockData

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 79

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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          40, 47, 55, 59, 62, 66, 70, 75
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         31, 37, 42, 44, 46, 49, 53, 57, 63, 74
Plot.Residuals.Scatter, 12, 16, 18, 21, 31,
          37, 42, 44, 46, 51, 51, 57, 63, 74
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          35, 40, 49, 53, 59, 62, 66, 70, 75
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          35, 40, 49, 55, 57, 62, 66, 70, 75
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