# Package 'AutoPlots'

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Water 12, 2025
Title AutoPlots
Version 1.0.0
<b>Date</b> 2023-03-12
Maintainer Adrian Antico <adrianantico@gmail.com></adrianantico@gmail.com>
<b>Description</b> R package for generating plots in a simple way
<pre>URL https://github.com/AdrianAntico/AutoPlots</pre>
BugReports https://github.com/AdrianAntico/AutoPlots/issues
<b>Depends</b> 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]
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# 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()

Install 3

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",
```

Plot.Box 13

```
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.

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

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,
```

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```
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.

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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", "forest", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "caravan", "carp", "carp", "caravan", "carp", "car

#' "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

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#### 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
```

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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
```

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#### **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",
```

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```
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

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```
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,
```

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```
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  $Y_Scroll$   $Y_Scroll$  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",
```

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```
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

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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.

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#### 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

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**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,
```

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```
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

70 Plot.Stock

 $Y_Scroll$  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 = 22,
```

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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
    )
Arguments
    StockDataOutput
                    PolyOut returned from StockData()
                    'candlestick', 'ohlc'
   Type
   PlotEngineType = "Echarts" or "Plotly"
   Width
                    = "1450px"
                    = "600px"
   Height
   EchartsTheme
                    = "macarons"
    TextColor
                    = "white"
    ShadowBlur
                    = 5. Chart boxes' shadow blur amount. This attribute should be used along with
                    shadowColor,shadowOffsetX, shadowOffsetY to set shadow to component
    ShadowColor
                    "black"
    ShadowOffsetX
    ShadowOffsetY
    title.fontSize = 22
    title.fontWeight
                    = "bold", # norma
    title.textShadowColor
                    = '#63aeff'
    title.textShadowBlur
    title.textShadowOffsetY
                    = 1
    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 StockData

## **Description**

Create stock data for plotting using Plot.Stock()

## Usage

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

#### **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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          35, 40, 49, 53, 59, 62, 66, 70, 75
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