

Package ‘AutoPlots’

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Title AutoPlots

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Description R package for generating plots in a simple way

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

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

Depends R (>= 4.0.0)

Imports bit64, data.table, lubridate, ggplot2, plotly, echarts4r

Suggests knitr, rmarkdown

VignetteBuilder knitr

Contact Adrian Antico

Encoding UTF-8

Language en-US

LazyData true

NeedsCompilation no

RoxygenNote 7.2.1

Author Adrian Antico [aut, cre]

R topics documented:

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| | |
|-------------|--------------------|
| BuildBinary | <i>BuildBinary</i> |
|-------------|--------------------|

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 | <i>Install</i> |
|---------|----------------|

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 | <i>Plot.Area</i> |
|-----------|------------------|

Description

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

Usage

```
Plot.Area(  
  dt = NULL,  
  AggMethod = "mean",  
  PreAgg = TRUE,  
  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,
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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |

| | |
|------------------|---|
| Title | "Title" |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| EchartsTheme | Provide an "Echarts" theme |
| X_Scroll | logical |
| Y_Scroll | logical |
| TimeLine | Logical |
| Alpha | 0 to 1 for setting transparency |
| Smooth | = TRUE |
| ShowSymbol | = FALSE |
| BackgroundColor | color outside of plot window. Rcolors and hex |
| ChartColor | color |
| FillColor | color |
| FillColorReverse | character |
| GridColor | color |
| TextColor | "Not Implemented" |
| ZeroLineColor | color |
| ZeroLineWidth | 1 |
| Debug | Debugging purposes |
| Area | logical |

Author(s)

Adrian Antico

See Also

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

Plot.Bar

*Plot.Bar***Description**

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

Usage

```

Plot.Bar(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  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 = "fffff",
  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 |

| | |
|------------------|---|
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| AggMethod | Choose from 'mean', 'sum', 'sd', and 'median' |
| Height | = NULL, |
| Width | = NULL, |
| Title | title |
| ShowLabels | logical |
| Title.YAxis | NULL. If NULL, YVar name will be used |
| Title.XAxis | NULL. If NULL, XVar name will be used |
| 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", "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 | 'lightsteelblue' |
| FillColor | 'gray' |
| FillColorReverse | character |
| GridColor | 'white' |
| TextColor | 'darkblue' |
| ZeroLineColor | = '#ffff' |
| 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\(\)](#)

Plot.BarPlot3D

Plot.BarPlot3D

Description

Build a 3D Bar Plot

Usage

```
Plot.BarPlot3D(
  dt,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_Y = 33,
  NumLevels_X = 33,
  Height = NULL,
  Width = NULL,
  Title = "3D Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  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
```


)

Arguments

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

Author(s)

Adrian Antico

See Also

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

| | |
|--------------------|---------------------------|
| Plot.BinaryMetrics | <i>Plot.BinaryMetrics</i> |
|--------------------|---------------------------|

Description

Line plot of evaluation metrics across thresholds

Usage

```
Plot.BinaryMetrics(
  dt = NULL,
  PreAgg = FALSE,
  AggMethod = "mean",
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  Metrics = c("Utility", "MCC", "Accuracy", "F1_Score", "F2_Score", "F0.5_Score",
    "ThreatScore", "TPR", "TNR", "FNR", "FPR", "FDR", "FOR"),
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  CostMatrixWeights = c(0, 1, 1, 0),
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Binary Metrics",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  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 |
| AggMethod | character |
| SampleSize | numeric |
| XVar | X-Axis variable name |
| YVar | Y-Axis variable name |
| ZVar | character |
| Metrics | Multiple selection "Utility", "MCC", "Accuracy", "F1_Score", "F2_Score", "F0.5_Score", "ThreatScore" |
| GroupVar | Character variable |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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", " |
| 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 | hex character |
| GridColor | hex character |
| TextColor | hex character |
| ZeroLineColor | hex character |
| 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 | <i>Plot.Box</i> |
|----------|-----------------|

Description

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

Usage

```
Plot.Box(  
  dt = NULL,  
  SampleSize = 100000L,  
  XVar = NULL,  
  YVar = NULL,  
  GroupVar = NULL,  
  YVarTrans = "Identity",  
  XVarTrans = "Identity",  
  FacetRows = 1,  
  FacetCols = 1,  
  FacetLevels = NULL,  
  Height = NULL,  
  Width = NULL,  
  Title = "Box Plot",  
  ShowLabels = FALSE,  
  Title.YAxis = NULL,  
  Title.XAxis = NULL,  
  Engine = "Plotly",  
  EchartsTheme = "macarons",
```

```

    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

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

Author(s)

Adrian Antico

See Also

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

Usage

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

```

XVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
NumberBins = 21,
Height = NULL,
Width = NULL,
Title = "Calibration 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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |

| | |
|------------------|---|
| Title.XAxis | character |
| 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 |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

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

Description

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

Usage

```

Plot.Calibration.Line(
  dt = NULL,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  Height = NULL,
  Width = NULL,
  Title = "Calibration 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 |
| AggMethod | character |
| XVar | X-Axis variable name |
| YVar | Y-Axis variable name |
| GroupVar | Character variable |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |

| | |
|------------------|--|
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 |
| Debug | Debugging purposes |
| SampleSize | numeric |

Author(s)

Adrian Antico

See Also

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

Plot.ConfusionMatrix *Plot.ConfusionMatrix*

Description

Generate variable importance plots

Usage

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

| | |
|------------------|---|
| PreAgg | FALSE |
| XVar | Column name of X-Axis variable. If NULL then ignored |
| YVar | Column name of Y-Axis variable. If NULL then ignored |
| ZVar | = "N" |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | = 21, |
| NumLevels_X | = NumLevels_Y, |
| NumLevels_Y | = NumLevels_X, |
| Title | title |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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", "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 | 'lightsteelblue' |
| FillColor | 'gray' |
| FillColorReverse | character hex |
| GridColor | 'white' |
| TextColor | 'darkblue' |
| ZeroLineColor | = '#ffff' |
| AggMethod | Choose from 'mean', 'sum', 'sd', and 'median' |
| GroupVar | = NULL |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

Plot.Copula

*Plot.Copula***Description**

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

Usage

```
Plot.Copula(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Copula Plot",
  ShowLabels = FALSE,
  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,
```

```

    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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | 'Copula Plot' |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| Engine | = "Plotly", |
| 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 |

```

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 | <i>Plot.Copula3D</i> |
|---------------|----------------------|

Description

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

Usage

```

Plot.Copula3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  GroupVar = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Copula 3D",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "dark-blue",
  TimeLine = FALSE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",

```

```

FillColor = "#0066ff",
FillColorReverse = "#97ff00",
GridColor = "white",
TextColor = "white",
ZeroLineColor = "fffff",
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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| GroupVar | Requires an XVar and YVar already be defined |
| Height | = NULL, |
| Width | = NULL, |
| Title | 'Copula3D Plot' |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| Engine | = "Plotly" |
| EchartsTheme | = "dark-blue" |

| | |
|------------------|---|
| 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, |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

| | |
|-----------------|------------------------|
| Plot.CorrMatrix | <i>Plot.CorrMatrix</i> |
|-----------------|------------------------|

Description

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

Usage

```
Plot.CorrMatrix(  
  dt = NULL,  
  CorrVars = NULL,  
  CorrVarTrans = "Identity",  
  FacetRows = 1,  
  FacetCols = 1,  
  FacetLevels = NULL,  
  Method = "spearman",  
  PreAgg = FALSE,  
  Height = NULL,  
  Width = NULL,  
  Title = "Correlation Matrix",  
  ShowLabels = FALSE,  
  Title.YAxis = NULL,  
  Title.XAxis = NULL,
```

```

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" |
| EchartsTheme | "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", # "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspire", # "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-velvet", "red", "roma", "royal", # "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", " |
| X_Scroll | logical |
| Y_Scroll | logical |
| 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 |
| 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 | <i>Plot.Density</i> |
|--------------|---------------------|

Description

Density plots, by groups, with transparent continuous plots

Usage

```
Plot.Density(  
  dt = NULL,  
  SampleSize = 100000L,  
  YVar = NULL,  
  XVar = NULL,  
  GroupVar = NULL,  
  YVarTrans = "Identity",  
  XVarTrans = "Identity",  
  FacetRows = 1,  
  FacetCols = 1,  
  FacetLevels = NULL,  
  Height = NULL,  
  Width = NULL,  
  Title = "Density Plot",  
  ShowLabels = FALSE,  
  Title.YAxis = NULL,  
  Title.XAxis = NULL,  
  Engine = "Plotly",  
  EchartsTheme = "macarons",  
  TimeLine = FALSE,  
  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,
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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | = "Density Plot" |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 | "#001534", |
| FillColor | "#0066ff", |
| FillColorReverse | "#97ff00", |
| GridColor | "white", |
| 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 | <i>Plot.Gains</i> |
|------------|-------------------|

Description

Create a cumulative gains chart

Usage

```
Plot.Gains(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Gains Plot",
  ShowLabels = FALSE,
  Title.YAxis = 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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 |
| 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 | <i>Plot.HeatMap</i> |
|--------------|---------------------|

Description

Create heat maps with numeric or categorical dt

Usage

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

```

    NumLevels_X = 33,
    Height = NULL,
    Width = NULL,
    Title = "Heatmap",
    ShowLabels = FALSE,
    Title.YAxis = NULL,
    Title.XAxis = NULL,
    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
)

```

Arguments

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


```

NumLevels_X      = 20
Height           = NULL,
Width            = NULL,
Title            "Heatmap"
ShowLabels       character
Title.YAxis      character
Title.XAxis      character
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'

```

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.

Usage

```

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

```

```

FacetLevels = NULL,
NumberBins = 30,
Height = NULL,
Width = NULL,
Title = "Histogram",
ShowLabels = FALSE,
Title.YAxis = NULL,
Title.XAxis = NULL,
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. |

| | |
|------------------|---|
| NumberBins | = 30 |
| Height | = NULL, |
| Width | = NULL, |
| 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", |
| 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.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

Usage

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

```

YVarTrans = "Identity",
XVarTrans = "Identity",
ZVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
NumberBins = 20,
Height = NULL,
Width = NULL,
Title = "Confusion Matrix",
ShowLabels = FALSE,
Title.YAxis = 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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |

| | |
|------------------|---|
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

| | |
|-----------|------------------|
| Plot.Line | <i>Plot.Line</i> |
|-----------|------------------|

Description

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

Usage

```

Plot.Line(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  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 |

| | |
|------------------|--|
| 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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | "Title" |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| EchartsTheme | Provide an "Echarts" theme |
| X_Scroll | logical |
| Y_Scroll | logical |
| TimeLine | Logical |
| Area | logical |
| Alpha | 0 to 1 for setting transparency |
| Smooth | = TRUE |
| ShowSymbol | = FALSE |
| 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 |
| 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.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

Usage

```
Plot.PartialDependence.Box(
  dt = NULL,
  PreAgg = FALSE,
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| AggMethod | character |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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", " |
| 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 | hex character |
| GridColor | hex character |
| TextColor | hex character |
| ZeroLineColor | hex character |
| 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.Gains\(\)](#), [Plot.Lift\(\)](#), [Plot.PartialDependence.HeatMap\(\)](#), [Plot.PartialDependence.Line\(\)](#), [Plot.ROC\(\)](#), [Plot.Residuals.Histogram\(\)](#), [Plot.Residuals.Scatter\(\)](#), [Plot.ShapImportance\(\)](#), [Plot.VariableImportance\(\)](#)

Plot.PartialDependence.HeatMap

Plot.PartialDependence.HeatMap

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.HeatMap(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  AggMethod = "mean",
  Height = NULL,
```

```

Width = NULL,
Title = "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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| AggMethod | character |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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", |
| 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 |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

Plot.PartialDependence.Line

Plot.PartialDependence.Line

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.Line(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
```

```

XVarTrans = "Identity",
ZVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
GroupVar = NULL,
NumberBins = 20,
AggMethod = "mean",
Height = NULL,
Width = NULL,
Title = "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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| GroupVar | Character variable |

| | |
|------------------|---|
| NumberBins | numeric |
| AggMethod | character |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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", |
| 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 |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

`Plot.Pie`*Plot.Pie*

Description

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

Usage

```
Plot.Pie(  
  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  
)
```

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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| AggMethod | Choose from 'mean', 'sum', 'sd', and 'median' |
| Height | = NULL, |
| Width | = NULL, |
| Title | title |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| EchartsTheme | "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "passion", "red-velvet", "red", "roma", "royal", "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "v" |
| TimeLine | logical |
| X_Scroll | logical |
| Y_Scroll | logical |
| 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' |
| 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.River\(\)](#), [Plot.Scatter3D\(\)](#), [Plot.Scatter\(\)](#), [Plot.StackedBar\(\)](#), [Plot.Step\(\)](#), [Plot.Violin\(\)](#)

Plot.Residuals.Histogram

Plot.Residuals.Histogram

Description

Residuals Plot

Usage

```
Plot.Residuals.Histogram(
  dt = NULL,
  AggMethod = "mean",
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumberBins | numeric |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

| |
|-------------------------------|
| Plot.Residuals.Scatter |
| <i>Plot.Residuals.Scatter</i> |

Description

Residuals_2 Plot

Usage

```
Plot.Residuals.Scatter(  
  dt = NULL,  
  AggMethod = "mean",  
  SampleSize = 1e+05,  
  XVar = NULL,  
  YVar = NULL,  
  GroupVar = NULL,  
  YVarTrans = "Identity",  
  XVarTrans = "Identity",  
  FacetRows = 1,  
  FacetCols = 1,  
  FacetLevels = NULL,  
  Height = NULL,  
  Width = NULL,  
  Title = "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 |
| AggMethod | character |
| SampleSize | numeric |
| XVar | X-Axis variable name |
| YVar | Y-Axis variable name |
| GroupVar | Character variable |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 |
| Debug | Debugging purposes |
| NumberBins | numeric |

Author(s)

Adrian Antico

See Also

Other Model Evaluation: [Plot.BinaryMetrics\(\)](#), [Plot.Calibration.Box\(\)](#), [Plot.Calibration.Line\(\)](#), [Plot.ConfusionMatrix\(\)](#), [Plot.Gains\(\)](#), [Plot.Lift\(\)](#), [Plot.PartialDependence.Box\(\)](#), [Plot.PartialDependence.Line\(\)](#), [Plot.ROC\(\)](#), [Plot.Residuals.Histogram\(\)](#), [Plot.ShapImportance\(\)](#), [Plot.VariableImportance\(\)](#)

| | |
|------------|-------------------|
| Plot.River | <i>Plot.River</i> |
|------------|-------------------|

Description

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

Usage

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

```

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

| | |
|-------------|--|
| 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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | "Title" |

| | |
|------------------|---|
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| EchartsTheme | Provide an "Echarts" theme |
| X_Scroll | logical |
| Y_Scroll | logical |
| TimeLine | Logical |
| ShowSymbol | = FALSE |
| BackgroundColor | color outside of plot window. Rcolors and hex |
| ChartColor | color |
| FillColor | 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 | <i>Plot.ROC</i> |
|----------|-----------------|

Description

ROC Plot

Usage

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

```

XVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
AggMethod = "mean",
Height = NULL,
Width = NULL,
Title = "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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| AggMethod | character |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |

| | |
|------------------|--|
| 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 |
| Debug | Debugging purposes |
| NumberBins | numeric |

Author(s)

Adrian Antico

See Also

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

| | |
|--------------|---------------------|
| Plot.Scatter | <i>Plot.Scatter</i> |
|--------------|---------------------|

Description

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

Usage

```

Plot.Scatter(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Scatter Plot",
  ShowLabels = FALSE,
  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 |

| | |
|------------------|---|
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | character |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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 characterb |
| ChartColor | character hex |
| FillColor | character hex |
| FillColorReverse | character |
| GridColor | character hex |
| TextColor | character hex |
| ZeroLineColor | character hex |
| ZeroLineWidth | numeric |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

Plot.Scatter3D

Plot.Scatter3D

Description

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

Usage

```
Plot.Scatter3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "3D Scatter",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  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
)
```

Arguments

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

Description

Plot.ShapImportance variable importance

Usage

```
Plot.ShapImportance(
  dt,
  PreAgg = FALSE,
  AggMethod = "meanabs",
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_X = 33,
  NumLevels_Y = 33,
  Height = NULL,
  Width = NULL,
  Title = "Shap Importance",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  Engine = "Plotly",
  EchartsTheme = "dark",
  X_Scroll = TRUE,
  Y_Scroll = TRUE,
  BackGroundColor = "#6a6969",
  ChartColor = "#001534",
  FillColor = "#0066ff",
  FillColorReverse = "#97ff00",
  GridColor = "white",
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

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

Plot.StackedBar

Plot.StackedBar

Description

Build a stacked bar plot vs a grouped bar plot

Usage

```
Plot.StackedBar(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
  Height = NULL,
  Width = NULL,
  Title = "Stacked Bar",
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  ShowLabels = FALSE,
  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
)
```


Arguments

| | |
|------------------|--|
| dt | source data.table |
| PreAgg | logical |
| XVar | X-Axis variable name |
| YVar | Y-Axis variable name |
| GroupVar | Column name of Group Variable for distinct colored histograms by group levels |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| AggMethod | Choose from 'mean', 'sum', 'sd', and 'median' |
| Height | NULL |
| Width | NULL |
| Title | title |
| Title.YAxis | NULL. If NULL, YVar name will be used |
| Title.XAxis | NULL. If NULL, XVar name will be used |
| ShowLabels | logical |
| 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", "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 | 'lightsteelblue' |
| FillColor | 'gray' |
| FillColorReverse | character |
| GridColor | 'white' |
| TextColor | 'darkblue' |
| ZeroLineColor | '#ffff' |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

| | |
|--------------------|---------------------------|
| Plot.StandardPlots | <i>Plot.StandardPlots</i> |
|--------------------|---------------------------|

Description

Helper for standard plots

Usage

```
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",
```

```

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

```

Arguments

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

| | |
|------------------|--------------------|
| 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 | <i>Plot.Step</i> |
|-----------|------------------|

Description

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

Usage

```
Plot.Step(  
  dt = NULL,  
  AggMethod = "mean",  
  PreAgg = TRUE,  
  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,
```

```

    ShowSymbol = FALSE,
    BackGroundColor = "#6a6969",
    ChartColor = "#001534",
    FillColor = "#0066ff",
    FillColorReverse = "#97ff00",
    GridColor = "white",
    TextColor = "white",
    ZeroLineColor = "fffff",
    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", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | "Title" |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| EchartsTheme | Provide an "Echarts" theme |
| X_Scroll | logical |

| | |
|------------------|---|
| Y_Scroll | logical |
| TimeLine | Logical |
| ShowSymbol | = FALSE |
| BackgroundColor | color outside of plot window. Rcolors and hex |
| ChartColor | color |
| FillColor | 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.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/>

Usage

```
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,
```

```

    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() |
| Type | 'candlestick', 'ohlc' |
| PlotEngineType | = "Echarts" or "Plotly" |
| Width | = "1450px" |
| Height | = "600px" |
| EchartsTheme | = "macarons" |
| TextColor | = "white" |
| ShadowBlur | = 5. Chart boxes' shadow blur amount. This attribute should be used along with shadowColor,shadowOffsetX, shadowOffsetY to set shadow to component |
| ShadowColor | "black" |
| ShadowOffsetX | 0 |
| ShadowOffsetY | 0 |
| title.fontSize | = 22 |
| title.fontWeight | = "bold", # norma |
| title.textShadowColor | = '#63aeff' |
| title.textShadowBlur | = 3 |
| title.textShadowOffsetY | = 1 |
| title.textShadowOffsetX | = -1 |
| xaxis.fontSize | = 14 |
| yaxis.fontSize | = 14 |

Author(s)

Adrian Antico

See Also

Other Stock Plots: [StockData\(\)](#)

`Plot.VariableImportance`*Plot.VariableImportance*

Description

Generate variable importance plots

Usage

```
Plot.VariableImportance(  
  dt = NULL,  
  XVar = NULL,  
  YVar = NULL,  
  GroupVar = NULL,  
  YVarTrans = "Identity",  
  XVarTrans = "Identity",  
  FacetRows = 1,  
  FacetCols = 1,  
  FacetLevels = NULL,  
  AggMethod = "mean",  
  Height = NULL,  
  Width = NULL,  
  Title = "Variable Importance Plot",  
  ShowLabels = FALSE,  
  Title.YAxis = NULL,  
  Title.XAxis = NULL,  
  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 |
| GroupVar | Column name of Group Variable for distinct colored histograms by group levels |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| AggMethod | Choose from 'mean', 'sum', 'sd', and 'median' |
| Title | title |
| ShowLabels | character |
| Title.YAxis | character |
| Title.XAxis | character |
| 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","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 | 'lightsteelblue' |
| FillColor | 'gray' |
| FillColorReverse | character hex |
| GridColor | 'white' |
| TextColor | 'darkblue' |
| ZeroLineColor | ='#ffff' |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See Also

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

| | |
|-------------|--------------------|
| Plot.Violin | <i>Plot.Violin</i> |
|-------------|--------------------|

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", "Standardize", "BoxCox", "YeoJohnson" |

| | |
|------------------|--|
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| Height | = NULL, |
| Width | = NULL, |
| Title | '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', |
| ZeroLineWidth | = 2, |
| Debug | 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\(\)](#)

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 |

| | |
|------------------|---|
| SampleSize | 100000L |
| PlotType | character |
| YVar | Y-Axis variable name |
| ZVar | Z-Axis variable name |
| XVar | X-Axis variable name |
| GroupVar | Character variable |
| YVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| XVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| ZVarTrans | "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" |
| FacetRows | Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows |
| FacetCols | Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns |
| FacetLevels | Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. |
| NumLevels_Y | = 75 |
| NumLevels_X | = 40 |
| Height | = NULL, |
| Width | = NULL, |
| 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 |
| GridColor | hex |
| TextColor | hex |
| NumberBins | numeric |
| Debug | Debugging purposes |

Author(s)

Adrian Antico

See AlsoOther Auto Plotting: [Plot.StandardPlots\(\)](#)

StockData

StockData

Description

Create stock data for plotting using `Plot.Stock()`

Usage

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

Arguments

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

Author(s)

Adrian Antico

See Also

Other Stock Plots: [Plot.Stock\(\)](#)

`UpdateDocs`*UpdateDocs*

Description

Update help files and reference manual

Usage

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

Author(s)

Adrian Antico

See Also

Other Utilities: [BuildBinary\(\)](#), [Install\(\)](#)

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