Mesh Chart ver 1.0 for Unity

menu

What's Mesh Chart?

Mesh Chart is one of assets for Unity. It can render many type of chart as 3D mesh. Types of chart, which Mesh Chart can render, are as follows,

- Line chart
- Bar chart
- Pie chart
- Doughnut chart
- Cobweb chart

Each chart will be placed by prefab. Developer can control chart style by setting Data's parameter, which each chart prefab contains. The prefab contains game object Data. Game object Data contains instance of Chart class which extends MonoBehavior. Chart class also has method UpdateData(float[]) and UpdateData(float[][]). Developer make a code to refer instance of Chart class and set data by calling UpdateData method so that the chart view will be updated. You can also refer Assets/MeshChart/SampleMeshChart/* as sample scene/script.
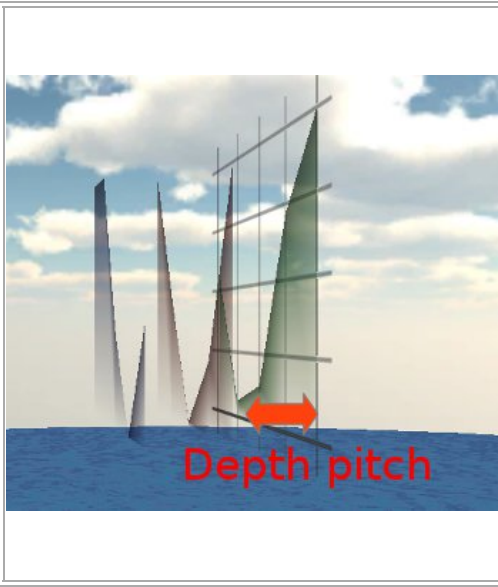
Line chart

LineChart class extends Chart class. Prefabs, which contains LineChart, are under Assets/Prefab/LineChart.

In UpdateData(float[][] data) call, data[X][t] means the value[t] in Xth line. data[X].Length must be same for each X.
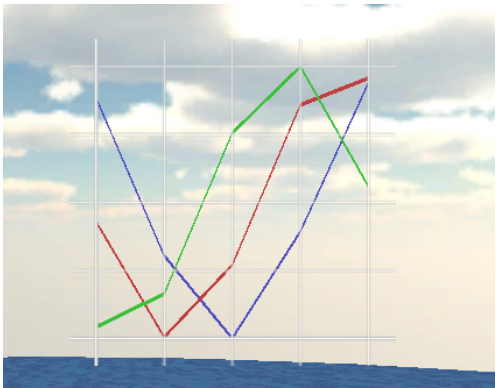
Parameter

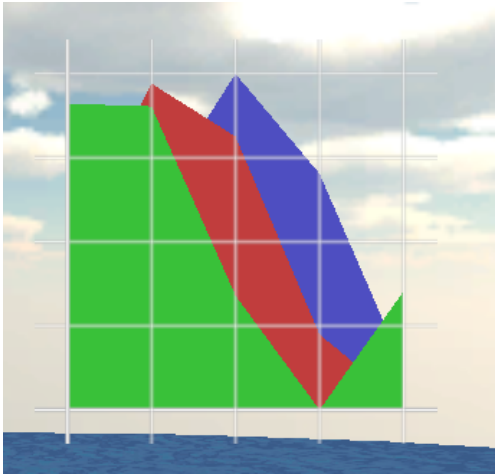In UpdateData(float[] data) call, data[t] means the value[t] in 1st line.

| Parameter	Brief
MThickness	Thickness of line.
MDepth Pitch	Distance between each line. See red arrow in picture Depth pitch.
MBase Color	Color of each line. The number of lines must be equals/greater than number of colors.
MMax	Maximum value in the chart.
MMin	Minimum value in the chart.
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
Alpha	permeation rate
Fill	Fill line chart. See LineChart_FillMixed.
Stacked	Draw stacked line chart. See LineChart_Stacked.
Auto Range	MMax and MMin will be changed automatically.

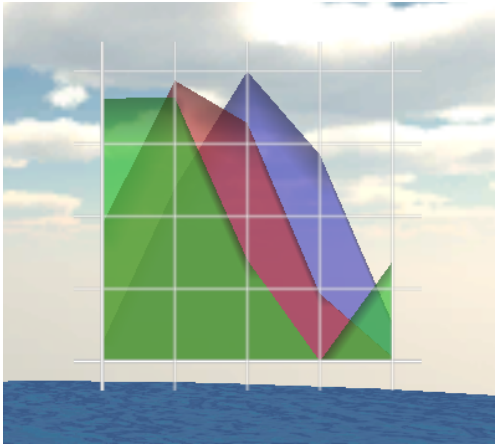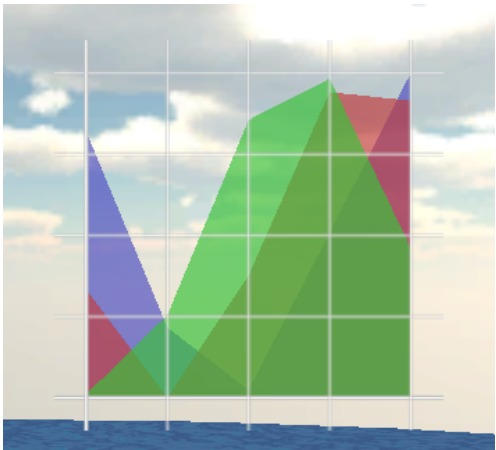#### Style

LineChart_Line

LineChart_Fill
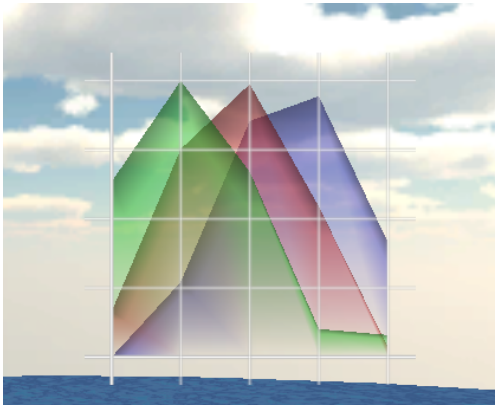

LineChart_Stacked
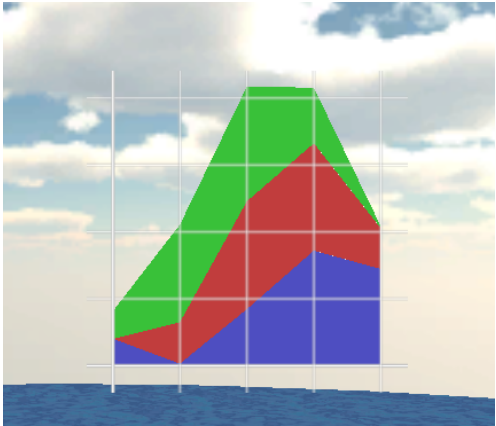
LineChart_FillMat

LineChart_FillMixed

LineChart_FillSlim

Bar chart

BarChart class extends Chart class. Prefabs, which contains BarChart, are under Assets/Prefab/BarChart.

Parameter

In UpdateData(float[][] data) call, data[X][Y] means the value in Xth bar in bar group Y. data[Y].Length must be same for each X.
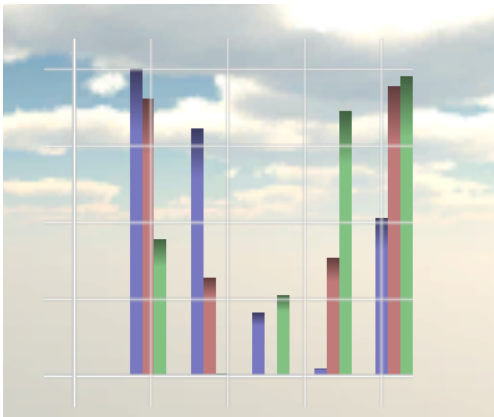

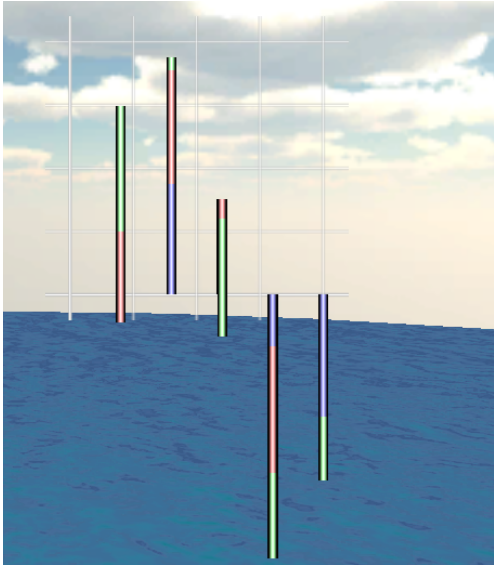| Parameter	Brief
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
MBar Width	Width of bar.
MBase Color	Color of each bar. The number of bars must be equals/greater than number of colors.
Max Value	Maximum value in the chart.
Min Value	Minimum value in the chart.
Auto Range	Max Value and Min Value will be changed automatically.
Alpha	permeation rate
Stacked	Draw stacked bar chart. See BarChart_Standard. See BarChart_StandardList when this flag is not set.
MDepth Pitch	Distance between each bar group.

Style

BarChart_DarkList
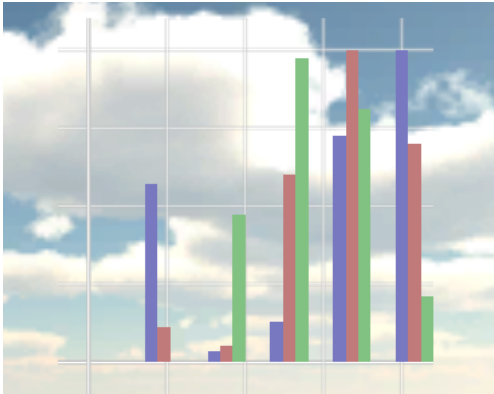
BarChart_Standard

BarChart_StandardList

Pie chart

PieChart class extends Chart class. Prefabs, which contains PieChart, are under Assets/Prefab/PieChart.

Parameter

In UpdateData(float[][] data) call, data[Y][X] means the value in Xth part of Yth circle. data[Y].Length must be same for each X.

| Parameter	Brief
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
MDiv	Each circle is divided into MDiv pies. High MDiv makes smooth pie chart and high cost.
MDepth Pitch	Distance between each circle.
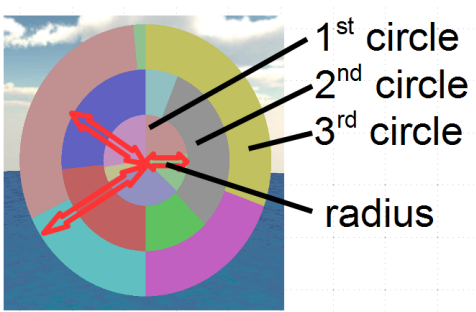
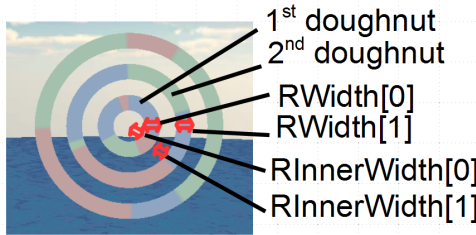|	
Default Radius	When MRadius[i] is invalid, MRadius[i] means MRadius[i−1] + (Default Radius).
Alpha	permeation rate
MBase Color	Color of each bar. The number of bars must be equals/greater than number of colors.
Simple Color	When MBase Color is null, this chart will be gradation.
MRadius	Radius of Nth circle.

Style

PieChart_Standard
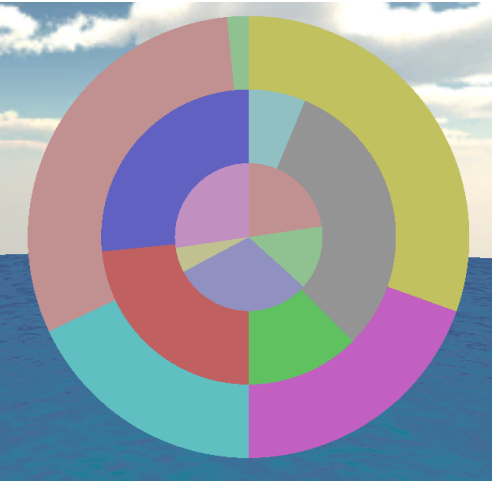
Doughnut chart

DoughnutChart class extends Chart class. Prefabs, which contains DoughnutChart, are under Assets/Prefab/DoughnutChart.

Parameter

In UpdateData(float[][] data) call, data[Y][X] means the value in Xth part of Yth circle. data[Y].Length must be same for each X.


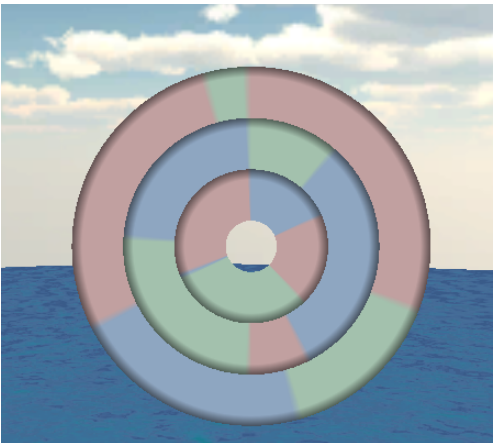| Parameter	Brief
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
MDiv	Each circle is divided into MDiv pies. High MDiv makes smooth pie chart and high cost.
MBase Color	Color of each bar. The number of bars must be equals/greater than number of colors.
RWidth	Width of Nth doughnut.
RInnerWidth	Width Between Nth doughnut and (N−1)th doughnut.
MDepth Pitch	Distance between each doughnut.
Simple Color	When MBase Color is null, this chart will be gradation.
Default Radius	When RWidth[i] is invalid, RWidth[i] means Default Radius.
Default First Inner Radius	When RInnerWidth[0] is invalid, RInnerWidth[0] means Default First Inner Radius. When RInnerWidth[x] (x >= 0) is invalid, RInnerWidth[x] means 0.

Alpha	permeation rate

Style

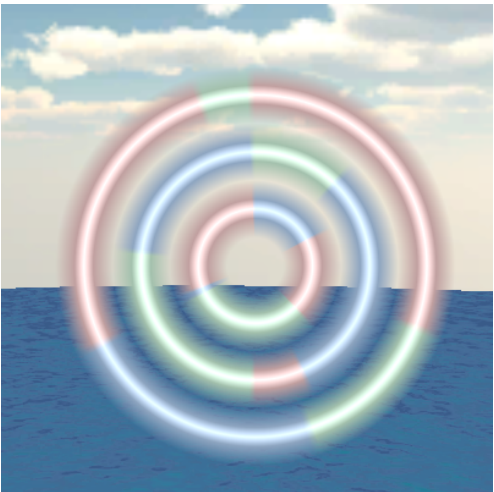DoughnutChart_Standard
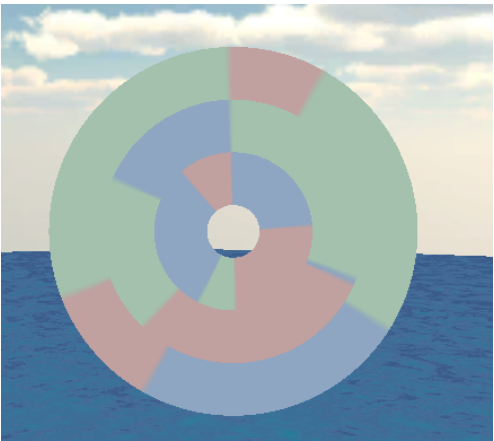
DoughnutChart_Mat

DoughnutChart_Ring

DoughnutChart_Separated

Alpha	permeation rate

Style

Cobweb chart

CobwebChart class extends Chart class. Prefabs, which contains CobwebChart, are under Assets/Prefab/CobwebChart.

Parameter

In UpdateData(float[][] data) call, data[Y][X] means the value in Xth corner of Yth cobweb. data[Y].Length must be same for each X.


| Parameter	Brief
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
MBase Color	Color of each bar. The number of bars must be equals/greater than number of colors.
MDepth Pitch	Distance between each doughnut.
MBackDiv	Separate background frame area by MBackDiv parts. In left picture, MBackDiv is 4.
MMaxValue	Maximum value in cobweb chart.
Alpha	permeation rate
BackBaseColor	Color of background frame.
BackAlpha	permeation rate in background frame.
MThickness	Thickness of line.
Fill	Fill cobweb area.

Style

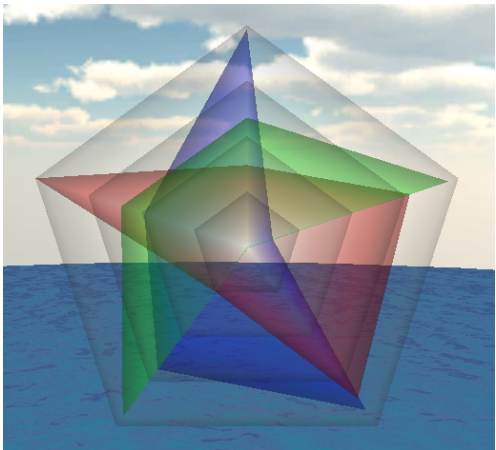CobwebChart_LineStandard
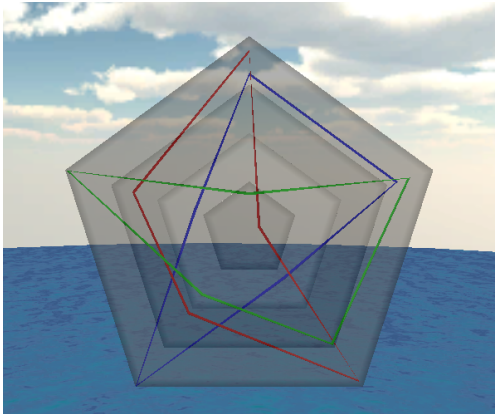
CobwebChart_Filled_Standard
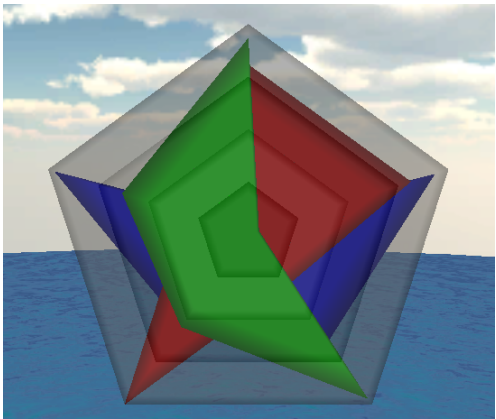
CobwebChart_FillMat
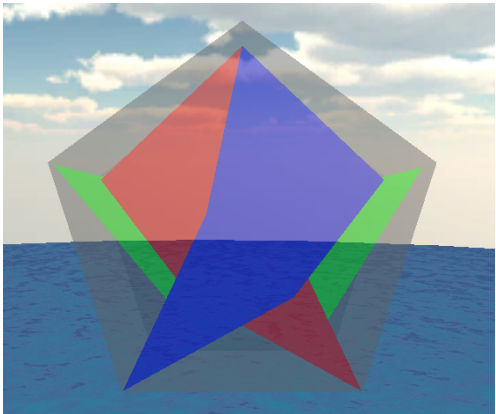
CobwebChart_FillMixed
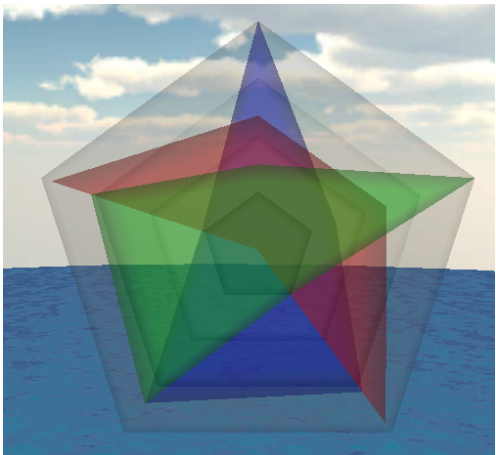
CobwebChart_FillSlim

Frame for chart

ChartFrame class extends MonoBehavior. Prefabs for LineChart and BarChart have GameObject which

contains ChartFrame script.

Parameter

ChartFrame has a method UpdateData(int row, int col) to create frame for chart.

Parameter	Brief
MThickness	Thickness of line.
Row_max	Row of frame.
Col_max	Col of frame.
Update For Editor	When this flag is set, shape of chart will be updated when parameter of chart is changed with Unity editor.
Line Color	Color of line.
Margin Left	Length of [L] in left picture.
Margin Right	Length of [R] in left picture.
Margin Top	Length of [T] in left picture.
Margin Bottom	Length of [B] in left picture.
Alpha	permeation rate