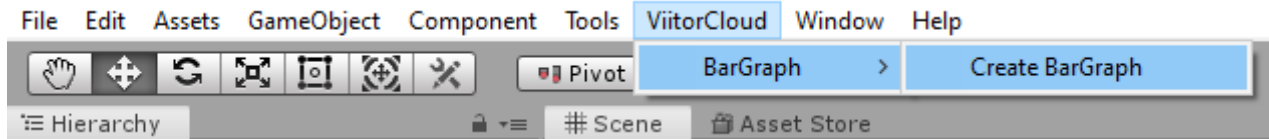# 3D INTERACTIVE BAR CHARTS

GUIDE TO USE:

Follow the below steps for creating your custom Bar Chart

1. To Create Bar chart, go to editor menu -> VittorCloud -> Bar Graph -> Create Bar Graph.

2. This will add Bar Graph GameObject into the current scene hierarchy. Bar Graph GameObject will have the Following component script attached.
   a. Bar Graph Generator – This script will instantiate and customize Bar Graph as a child of this GameObject on play.
   b. Bar Graph Example – This is an example script for accessing Bar Graph Generator scripts APIs to create, insert and update the bar graph data.
3. For more details have a look on the BarGraph scene.

ASSET SCRIPT MANUAL:

1. BAR GRAPH GENERATOR.CS :

Properties:

Graph Settings:

1. *Max Height:* Maximum allowed height of the graph in Y axis.
2. *X Start, Y Start, Z Start:* Starting distance of the first X, Y and Z point from the origin of the graph.
3. *Segment Size on X Axis, Segment Size on Y Axis, Segment Size on Z Axis:* Distance between the X, Y or Z point. This distance also responsible for calculating the total length of the graph axis.
4. *Offset Between X Row, Offset Between Y Row:* Offset between the starting point of the two X or Z row.

Graph Animation Settings: Settings for starting animation of the graph.

1. *Animation Speed:* Speed of the animation

2. *Graph Animation Type:*
   a. One by One: Each bar will scale one by one.
   b. All Together: All bars will scale together.
   c. Animation with Gradient: Each bar will scale one by one and the color of the bars will change as the height of the bar grows. This animation will only work with the "Height Vise Gradient" Property of the Bar Color.

Bar Settings:

1. *Bar Prefab:* Prefab of the bar which will be instantiated in the graph box. *For creating the custom bar prefab follow the provided example bar prefabs component hierarchy and format.
2. *Bar Color Properties:*
   a. Solid Color: Applies Solid color to the bar which is assign to the bar Type from the dataset.
   b. Custom Material: Applies Material to the bar which is assign to the bar Type from the dataset.
   c. Height Vise Gradient: It will enable a Gradient variable into the Bar Graph Generator's inspector. Each created bar on the graph will be assign with the color from the in ascending order from left to right.
3. *Bar Scale Factor:* Scale factor which will multiply the scale of the bar, text and the axis points.

Graph Ref: Prefab of the Bar Graph Manager.

Custom Events:

1. ***On Bar Pointer Down:*** Invokes when the pointer gets down on any of the graph bars.
2. ***On Bar Pointer Up:*** Invokes when the pointer gets upon any of the graph bars.
3. ***On Bar Hover Enter:*** Invokes when the pointer hovers on any of the graph bars.
4. ***On Bar Hover Exit:*** Invokes when the pointer gets exit on any of the graph bars.

*All the above Event will pass the effected bar as a GameObject.

5. ***On Initial Graph Completed:*** This will be invoked when the starting animation of the bar graph will be over.

Methods:

AddNewDataSet(int dataSetIndex, int xyValueIndex, float yValue) : This Method can be used to update bar height in run time.

1. ***DataSetIndex*** - Index of the type (index of the Z value of the bar graph)
2. ***XyValueIndex*** - Index of the Set (index of the X value of the bar graph)
3. ***YValue*** - New Bar Value (Value of the bar in Y axis).

*For More Information please see "Bar Graph Example" script.