

# 1 CONTENTS

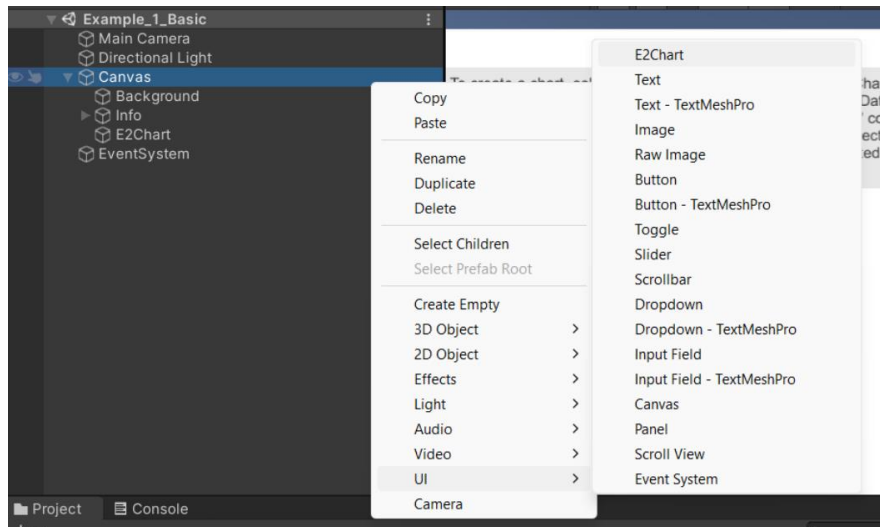
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## 2 BASIC USAGE

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- Create a chart with menu item "GameObject > UI > E2Chart".



- Select chart type in "E2Chart" component, adjust chart options in "E2ChartOptions" component, input chart data in "E2ChartData" component.
- To preview the chart, click "Preview chart" button in "E2Chart" component. Once you are ok with the chart, you can click "Clear preview" button to remove preview, or directly remove the chart preview game object.
- Start the game and see the chart you just created.

### Notes:

- Check chart demo and examples for more use cases.  
(“Assets > Ice Pond > E2Chart > Examples > Scenes”)
- To enable Text Mesh Pro support, add "CHART\_TMPRO" in "Player Settings / Other Settings / Scripting Define Symbols".

### 3 SCRIPTING

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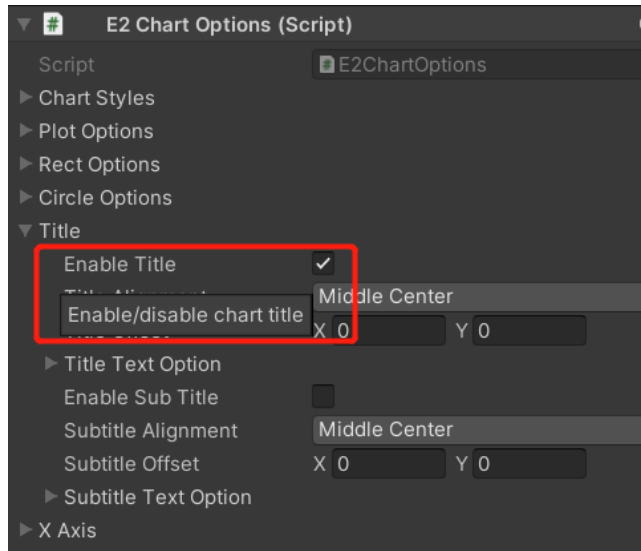
- A basic chart consists of “E2Chart”, “E2ChartOptions” and “E2ChartData” components
- Modify chart.chartOptions to update chart configuration.
- Modify chart.chartData to feed data into the chart.
- When chart data and options are ready, call chart.UpdateChart() function to update the chart.
- Check “Example\_3\_Scripting” for more details.

## 4 CHART OPTIONS

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In chart options, you can set chart styles and chart elements to be displayed.

You can also find properties description in property tooltip.



### 4.1 TEXT OPTIONS

This is general class for chart text options.

- Color color: Text color.
- int fontSize: Text font size.
- Font font: Text font. If this is null, Options - Plot Option - General Font will be used.
- Text customizedText: Text template. E2Chart will instantiate the text GameObject with all its attached components (e.g. shadow, outline), which allows more advanced text settings. This will overwrite all basic text options (Color, Font Size and Font).

### 4.2 CHART STYLES

Styles for each chart type.

#### 4.2.1 Bar Chart Options

- float barWidth: Width of bars.
- float barSpacin: Distance between bars.
- bool enableBarBackground: Enable/disable bar background.
- float barBackgroundWidth: Bar background width.

- Color barBackgroundColor: Bar background Color.
- ColorBlendOptions barGradientStart: Bar gradient start color.
- ColorBlendOptions barGradientEnd: Bar gradient end color.

#### 4.2.2 Line Chart Options

- float pointSize: Point size.
- bool enableLine: Enable/disable lines.
- float lineWidth: Line width for line chart lines.
- bool enableShade: Enable/disable shade under the lines.
- float shadeOpacity: Opacity of the shade.
- bool pointOutline: Enable/disable point outline.
- float pointOutlineWidth: Width of point outline.
- Color pointOutlineColor: Color of point outline.
- bool swapPointOutlineColor: Swap point outline color with point color.
- bool splineCurve: Plot spline curve instead of line.

#### 4.2.3 Pie Chart Options

- float seriesSpacing: Distance between series.
- float dataSpacing: Distance between items.
- ColorBlendOptions[] seriesColorBlend: Use this option to adjust color for each series.

#### 4.2.4 Rose Chart Options

- float barWidth: Width of bars.
- float barSpacing: Distance between bars.
- bool enableBarBackground: Enable/disable bar background.
- float barBackgroundWidth: Width of bar background.
- Color barBackgroundColor: Color of bar background.

#### 4.2.5 Radar Chart Options

- float pointSize: Point size for radar chart item points.
- bool enableLine: Enable/disable lines.
- float lineWidth: Line width for radar chart lines.
- bool enableShade: Enable/disable shade.
- float shadeOpacity: Transparency of the shade.
- bool pointOutline: Enable/disable point outline.

- float pointOutlineWidth: Width of point outline.
- Color pointOutlineColor: Color of point outline
- bool swapPointOutlineColor: Swap point outline color with point color.
- bool circularGrid: Use circular grid.

#### 4.2.6 Gauge Options

- float pointerStart: Pointer length start.
- float pointerEnd: Pointer length end.
- float pointerWidth: Pointer width.
- Color pointerColor: Color of pointer.
- bool enableSubTick: Enable/disable sub ticks.
- Color subtickColor: Color of subticks.
- Vector2 subtickSize: Width/Length of ticks.
- int subtickDivision: Sub tick division count.
- BandOptions[] bands: Color bands.

#### 4.2.7 Solid Gauge Options

- float barWidth: Width of bars.
- float barSpacing: Distance between bars.
- bool enableBarBackground: Enable/disable bar background.
- float barBackgroundWidth: Width of bar background.
- Color barBackgroundColor: Color of bar background.

### 4.3 PLOT OPTIONS

#### General chart plot options

- Color[] seriesColors: Series colors.
- Sprite[] seriesIcons: Series icons.
- string cultureInfoName: C# culture info for the chart. Leave it empty for invariant culture.
- Font generalFont: Font used for the all text elements in the chart.
- ColorMode colorMode: Color by series or by data (if applicable).
- MouseTracking mouseTracking: Track mouse position to highlight chart items and display tooltip.

- ColumnStacking columnStacking: Column stacking modes.
- Color itemHighlightColor: Item background color when mouse is hovering the item.
- Color backgroundColor: Chart background color.
- bool frontGrid: Bring the grid to the front.

## 4.4 RECT OPTIONS

Rectangular chart options

- bool inverted: Invert XY axes.
- bool enableZoom: Enable/Disable chart zoom feature.
- float zoomMin: Default zoom range minimum.
- float zoomMax: Default zoom range maximum.
- float minZoomInterval: Default minimum zoom range (between zoomMin and zoomMax).

## 4.5 CIRCLE OPTIONS

Circular chart options

- float innerSize: Inner size.
- float outerSize: Outer size.
- float startAngle: Start angle.
- float endAngle: End angle.
- bool autoResize: Auto adjust circle center and size.

## 4.6 TITLE

Chart title options

- bool enableTitle: Enable/disable chart title.
- TextAnchor titleAlignment: Title text alignment.
- Vector2 titleOffset: Title text offset.
- TextOptions titleTextOption: Title text options.
- bool enableSubTitle: Enable/disable chart subtitle.
- TextAnchor subtitleAlignment: Subtitle text alignment.

- Vector2 subtitleOffset: Subtitle text offset.
- TextOptions subtitleTextOption: Subtitle text options.

## 4.7 X/Y Axis

X/Y axis options

- AxisType type: Aaxis type.

Axis style

- bool enableAxisLine: Enable/disable axis line.
- Color axisLineColor: Color of axis line.
- float axisLineWidth: Width of axis line.
- bool enableGridLine: Enable/disable grid lines.
- Color gridLineColor: Color of grid lines.
- float gridLineWidth: Width of grid lines.
- bool enableTick: Enable/disable ticks.
- Color tickColor: Color of ticks.
- Vector2 tickSize: Width/Length of ticks.
- bool mirrored: Mirror the axis.
- float minPadding: Min padding along axis.
- float maxPadding: Max padding along axis.

Axis title and labels

- bool enableTitle: Enable/disable axis title.
- TextOptions titleTextOption: Title text options.
- bool enableLabel: Enable/disable axis labels.
- string labelContent: Label content string for linear axis, keywords will be replaced, while other characters remain the same, useful for adding unit. Leave it empty for default content.
  - {data} - data
  - {abs(data)} - absolute data
- string labelNumericFormat: C# numeric format string for displaying numbers in label. Leave it empty to let system set the format.
- TextOptions labelTextOption: Label text options.



- LabelRotation labelRotationMode: Label rotation mode.

#### Linear axis options

- bool autoAxisRange: Let system decide the axis range. If disabled, axis range will be determined by 'min' and 'max'.
- bool restrictAutoRange: If 'autoAxisRange' is on, restrict the range between min/max data values.
- bool startFromZero: Axis range always start from zero when 'autoAxisRange' is enabled. For linear axis only.
- float min: The minimum range when 'autoAxisRange' is disabled.
- float max: The maximum range when 'autoAxisRange' is disabled.
- int axisDivision: Axis division. (Linear axis only).
- int interval: The interval of points (ticks, grid lines, labels). Set interval < 1 to let system decide the interval.

## 4.8 TOOLTIP

#### Tooltip options

- bool enable: Enable/disable tooltip when mouse is hovering chart items.
- string headerContent: Tooltip header format string, keywords will be replaced while other characters remain the same. Leave it empty for default content.
  - {series} - series name (mouse tracking by series only)
  - {category} - category name (categorical axis only)
  - {dataName} - data name (pie chart only)
- string pointContent: Tooltip point format string, keywords will be replaced while other characters remain the same. Leave it empty for default content.
  - {series} - series name
  - {category} - category name (categorical axis only)
  - {dataName} - data Name (pie chart only)
  - {dataY} - dataY
  - {dataX} - dataX (linear axis only)
  - {abs(dataY)} - absolute dataY
  - {pct(dataY)} - dataY percentage form
- string numericFormat: C# numeric format string for displaying numbers in tooltip. Leave it empty to let system set the format.

- TextOptions textOption: Tooltip text options.
- Color backgroundColor: Color of tooltip background.

## 4.9 LEGEND

### Legend options

- bool enable: Enable/Disable legends.
- TextAnchor position: Legends position.
- RectTransform.Axis layout: Legends horizontal/vertical layout.
- LegendAlignment alignment: Legends alignment.
- Vector2 spacing: Spacing around each legend.
- Vector2 offset: Legend area offset.
- Vector2 sizeLimit: Legend area size limit. Set -1 to let system calculate the size.
- string content: Label content string, keywords will be replaced, while other characters remain the same. Leave it empty for default content.
  - {series} - series name
  - {dataName} - data name (pie chart only)
  - {dataY} - dataY (pie chart only)
  - {pct(dataY)} - dataY percentage form (pie chart only)
- string numericFormat: C# numeric format string for displaying numbers in legends. Leave it empty to let system set the format.
- TextOptions textOption: Legend text options.
- bool enableIcon: Enable/Disable legend icon.
- Color normalColor: Legend background color.
- Color highlightedColor: Legend highlighted color.
- Color dimmedColor: Legend dimmed color when it is toggled off.

## 4.10 LABEL

### Label options

- bool enable: Enable/disable label of chart data.
- string content: Label content string, keywords will be replaced, while other characters remain the same. Leave it empty for default content.

- {series} - series name
- {category} - category name (categorical axis only)
- {dataName} - data Name (pie chart only)
- {dataY} - dataY
- {abs(dataY)} - absolute dataY
- {pct(dataY)} - dataY percentage form
- string numericFormat: C# numeric format string for displaying numbers in labels. Leave it empty to let system set the format.
- TextOptions textOption: Label text options.
- float anchoredPosition: Label anchored position in the chart item, 0.0/0.5/1.0 indicates beginning/middle/end of the item.
- float offset: Label offset distance from the chart item, positive/negative value will move label away/toward the chart center.
- LabelRotation rotationMode: Label rotation.

## 5 CHART DATA

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- string title: chart title.
- string subtitle: chart subtitle.
- string xAxisTitle: x axis title.
- string yAxisTitle: y axis title.
- string dateTimeStringFormat: if input DateTime string data, specify the C# DateTime format here.
- List<Series> series: input series.
- List<string> categoriesX: x axis categories.
- List<string> categoriesY: y axis categories.

### 5.1 SERIES

Each series represents one sequence of data to be displayed.

- string name: series name.
- bool show: show/hide this series.
- List<string> dataName: list of data names.
- List<bool> dataShow: list of data visibility. If the list is null or empty, all data will be shown.
- List<float> dataX: list of x axis values. Only required when x axis is set to linear mode.
- List<float> dataY: list of y axis values.
- List<long> dateTimeTick: list of x axis DateTime ticks. Required when x axis is set to DateTime mode.
- List<string> dateTimeString: list of x axis DateTime string. This data will be used when x axis is set to DateTime mode and dateTimeTick is not available.