

Series Properties

These properties affect a line, area, bar, column, or bubble series. Which properties are available depends on whether you have selected a line, area, bar, or column series, or whether you inserted a pre-made bubble chart widget. For pie chart properties, see [Pie Chart Properties](#).

For a guide to using charts, see [Designing Charts](#).



Series can also be affected by [Fill and Stroke properties](#) and [Selection properties](#).

Properties Advanced Actions

Series

Display Name:

Series Type:

Line Form:

Show Datatips:

Datatip:

Datatip Renderer:

Markers:

Marker Radius:

Stroke:

Data Source:

X Field: Y Field:

Horiz Axis: Vert Axis:

Series Animation:

Duration:

Element Offset:

Minimum Element Duration:

Offset:

Horizontal Focus:

Vertical Focus:

Relative To:

Outline Symbols

Stage

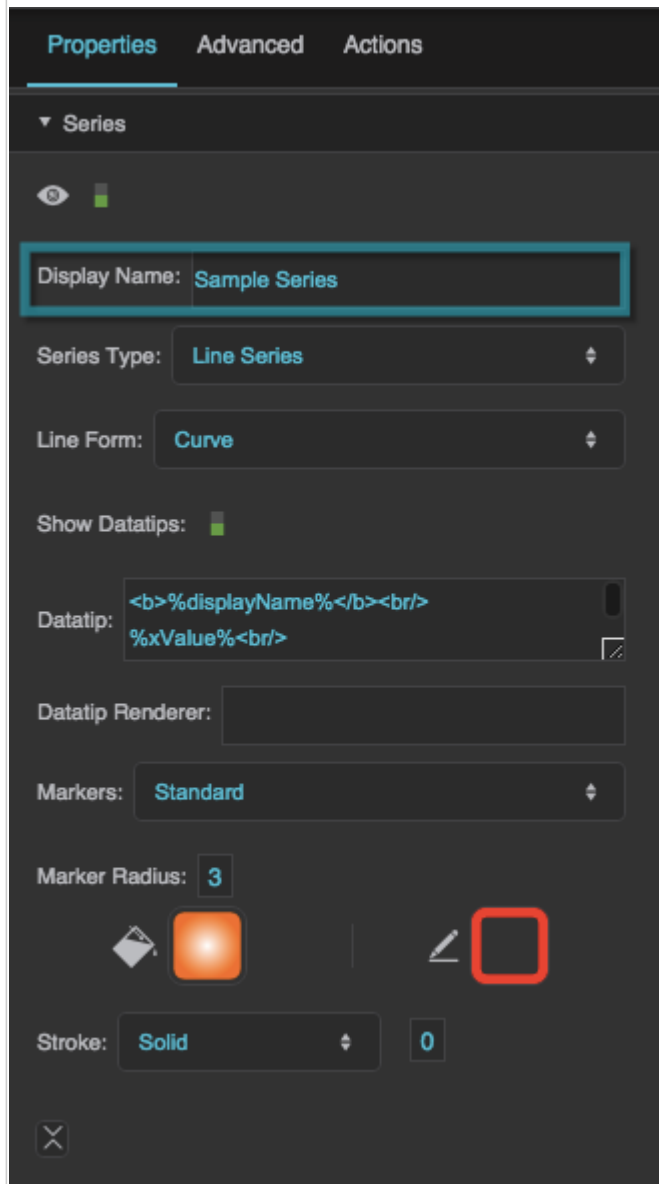
- Line_Chart
- Series
 - series1
 - series2

Series properties in the Property Inspector

Click to display/hide all elements

Display Name

Defines the display name of this series. You can choose to have this name appear in your interface, for example in datatips.



The Display Name property

Series Type

Defines how the series data is visually represented.

Line series

Markers represent the data points. Lines connect the markers.

Area series

Markers represent the data points. Lines connect the markers, and the area delimited by the lines is filled in.

Bar series

Horizontal bars represent the data points.

Column series

Vertical columns represent the data points.

The screenshot shows the 'Series Properties' panel with the following settings:

- Series Type: **Line Series** (highlighted with a red box)
- Line Form: **Curve**
- Show Datatips:
- Datatip: `%displayName%
%xValue%
`
- Datatip Renderer: [empty]
- Markers: **Standard**
- Marker Radius: **3**
- Stroke: **Solid**
- 0

The Series Type property

Line Form

Defines the shape of the lines in a line or area series.

Segment

Markers are connected using line segments.

Step

Markers are connected using orthogonal line segments. Horizontal and vertical segments alternate, beginning with a horizontal segment.

ReverseStep

Data points are connected using orthogonal line segments. Vertical and horizontal segments alternate, beginning with a vertical segment.

Vertical

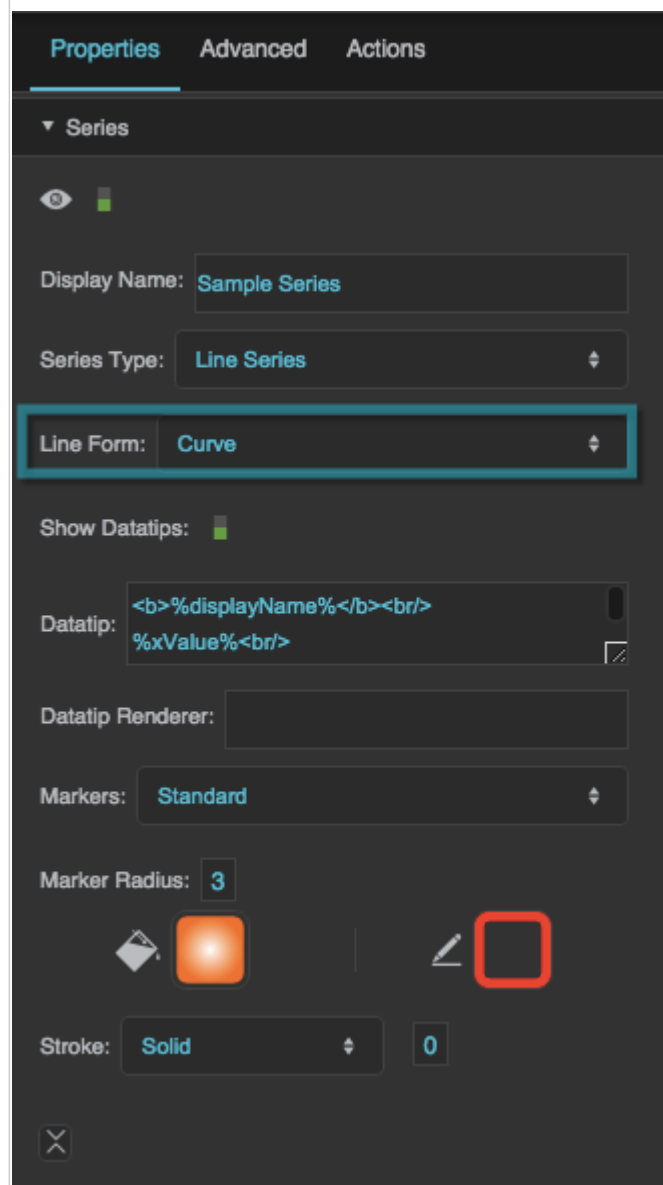
Only the vertical segments from a Step line form are displayed.

Horizontal

Only the horizontal segments from a Step line form are displayed.

Curve

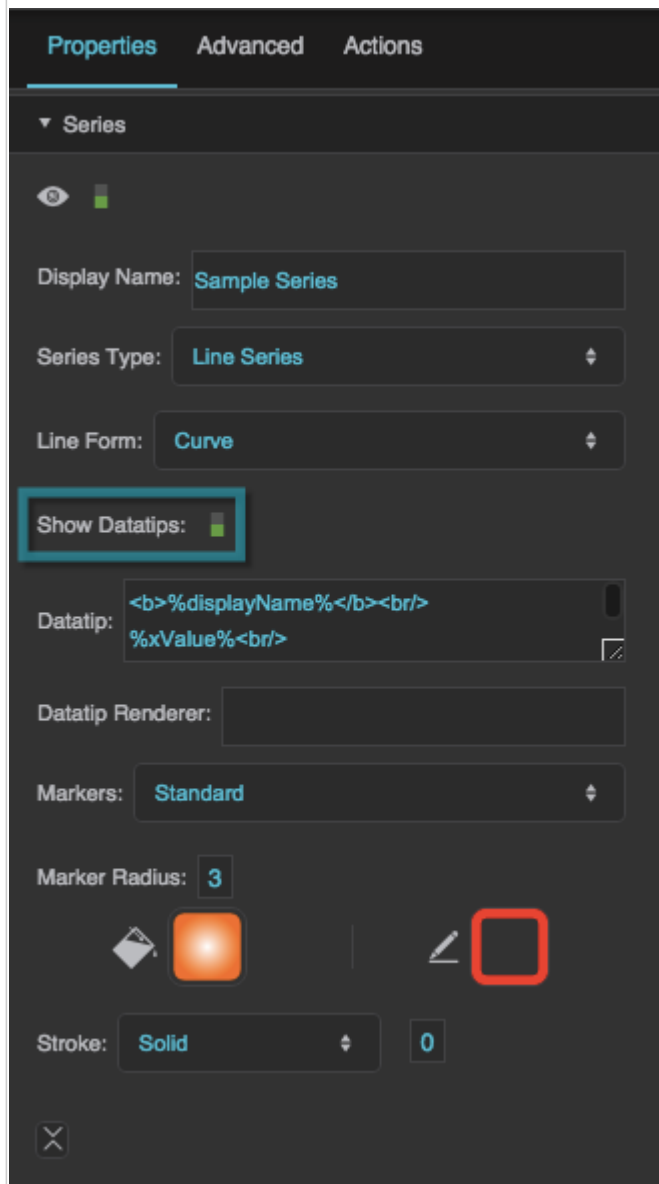
Markers are connected using a curve.



The Line Form property

Show Datatips

Specifies whether datatips are displayed when the user mouses over data points. If this series uses custom markers, datatips are shown by default.



The Show Datatips property

Datatip

Configures the text displayed in a datatip for a series. Use the tags listed below to format the datatip and include data.

HTML tags

Include these tags to format the datatip:

- `
` — line break
- `insert text here` — bold
- `<i>insert text here</i>` — italic

Including data

Include these tags to show values from the data:

- `%displayName%` — the **Display Name** property for this series
- `%xValue%` — the X value of the point
- `%yValue%` — the Y value of the point
- `%value%` — the value of the pie wedge
- `%yValueTotal%` — The sum of the Y values for this point and other points in this table row. Only includes points from this series and others that appear above it inside this series stacker.
- `%A%` — Replace A with the name of a column to show the value of that column.

Formatting numbers

To control how a number is formatted, include a format string inside brackets, before the final percent sign. For example:

- `%yValue[,##0.00]%` — the Y value with a thousands separator and two decimal digits
- `%value[000.00]%` — the pie wedge value with three mandatory digits before the decimal, and two mandatory digits after the decimal.

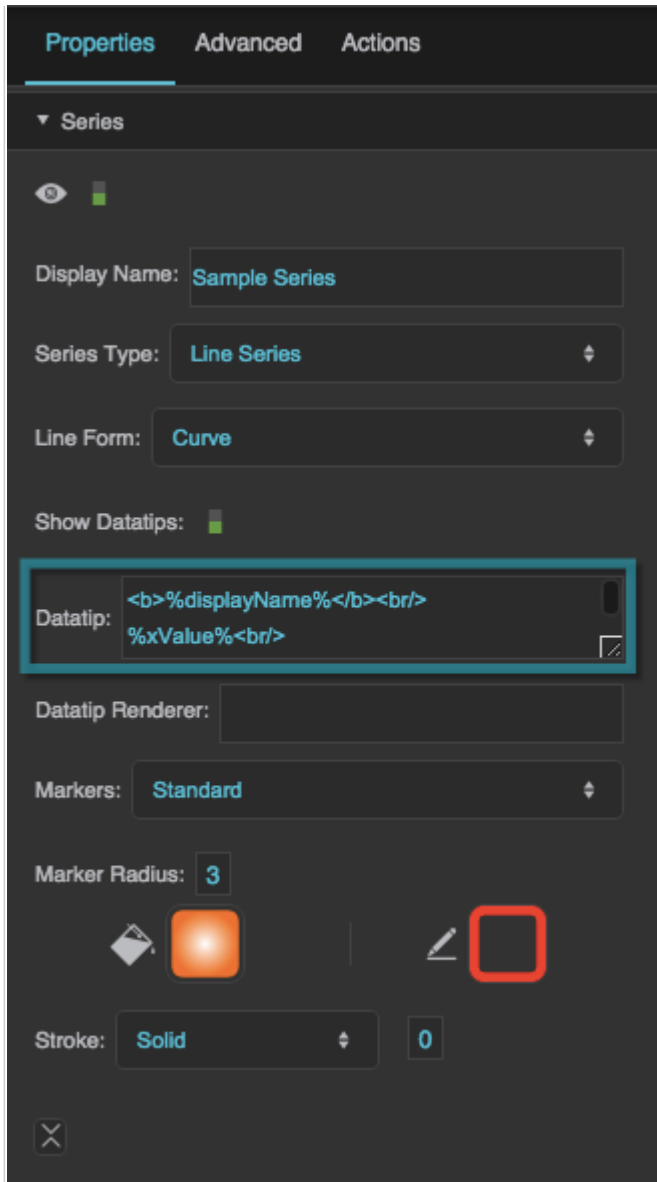
For number formatting help, see [Scripting and Syntax](#).

Formatting dates

To control how a date is formatted, include a format string inside brackets, before the final percent sign. For example:

- `%xValue[yy/MM/dd]%` — the X value as a date with a two-digit year, two-digit month, and two-digit day
- `%xValue[y MMMM dd]%` — the X value as a date with the full year, the name of the month, and a two-digit day
- `%xValue[yy/MM/dd HH:mm:ss]%` — the X value as a date and time
- `%xValue[yMd]%` — the X value as a localized short date pattern. The pattern will be different based on the locale.
- `%xValue[yMMMd | |Hms]%` — the X value as a localized date and time. The pattern will be different based on the locale. In this example, vertical bar symbols (|) are used to join three patterns: one for the localized date, one that contains a space, and one for the localized time.

For date formatting help, see [Scripting and Syntax](#).

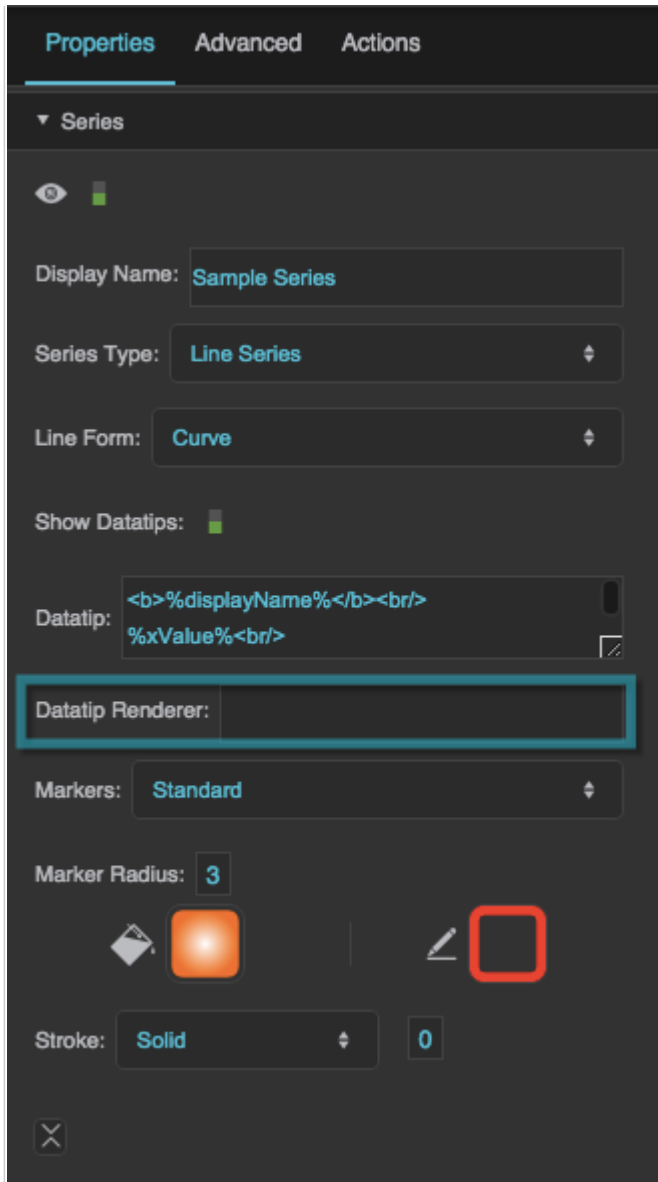


The Datatip property

Datatip Renderer

Specifies the symbol to use as the datatip for the series. This property overrides any text entered in the **Datatip** property. To use a symbol from this project, enter the name of the symbol. To use a symbol from another project in your library, enter the path to that symbol.

When you populate this field with a symbol, the datatip renderer appears in the [Outline](#) as a child of this series, and you can bind table columns to symbol properties in the [Property Inspector](#).



The Datatip Renderer property

Markers

Defines the type of markers used by this series. Markers are used to visually represent each data point in the series, in addition to the line or shape that represents the entire series.

None

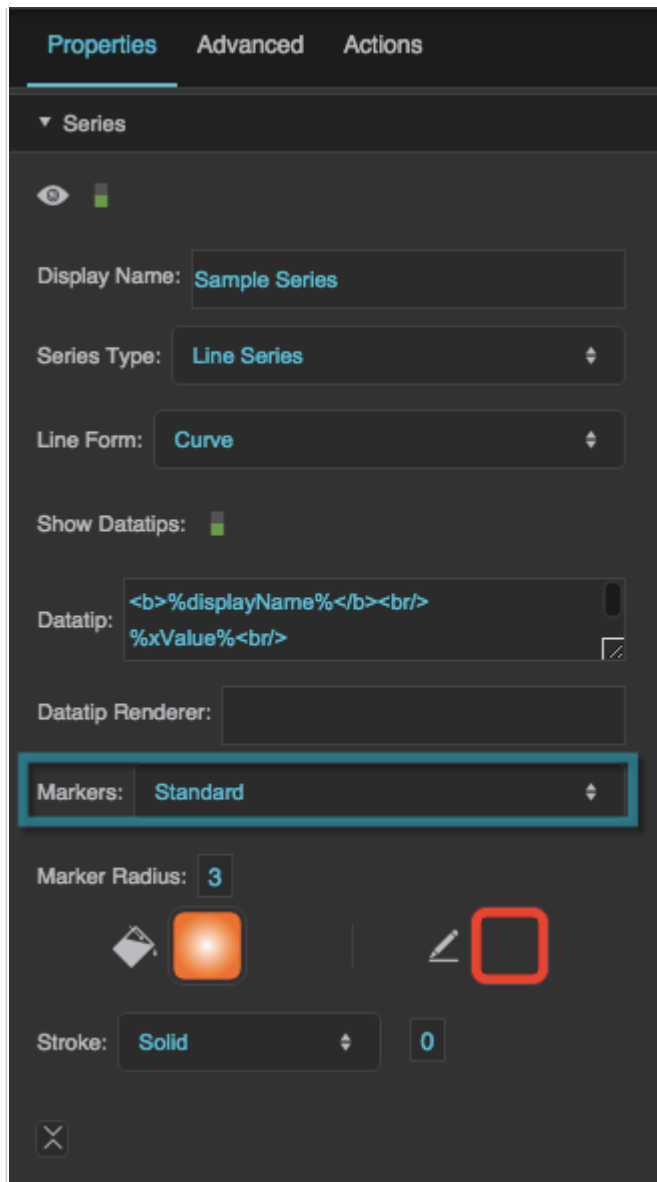
No markers are used by this series.

Standard

This series uses DGLux5's standard marker design, a circle with a customizable fill, stroke, and size.

Custom

This series uses the specified symbol as a marker.

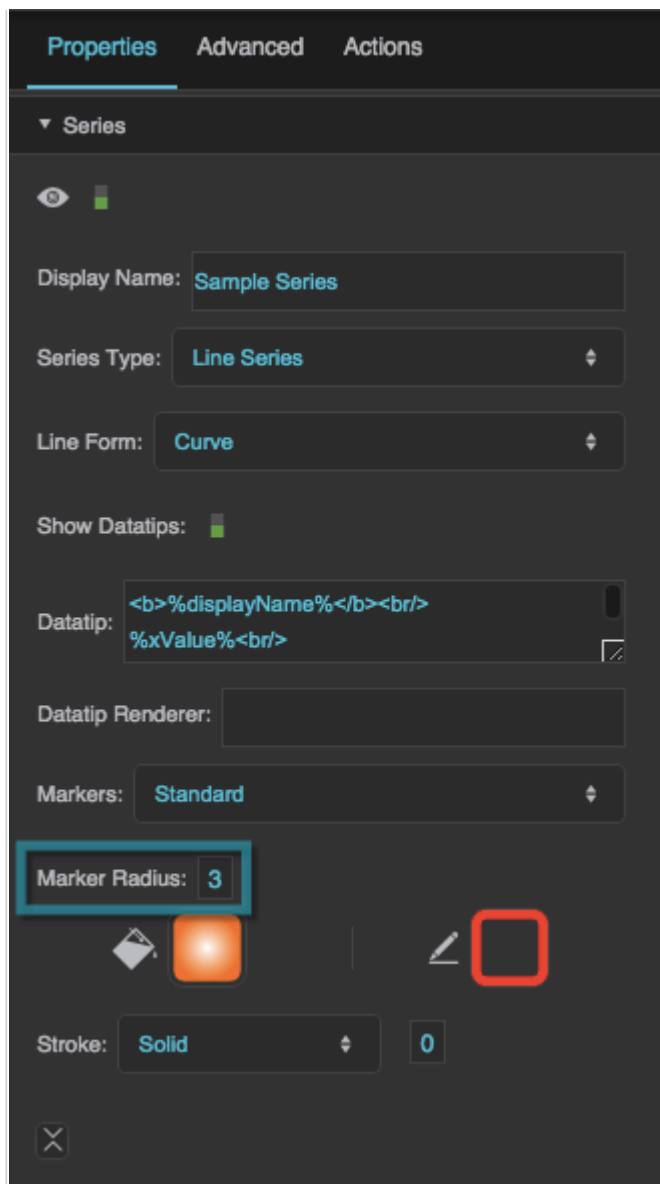


The Markers property

Marker Radius

For standard markers, defines the marker radius in pixels.

For custom markers, defines the largest radius of an inscribed ellipse, in pixels. In other words, this property is equal to half the symbol width or half the symbol height, whichever is larger.



The Marker Radius property

Marker Renderer

Specifies the symbol to use for custom markers. To use a symbol from this project, enter the name of the symbol. To use a symbol from another project in your library, enter the path to that symbol.

When you populate this field with a symbol, the marker's item renderer appears in the [Outline](#) as a child of this series, and you can bind table columns to symbol properties in the [Property Inspector](#).

Series

Display Name:

Series Type:

Line Form:

Show Datatips:

Datatip:

Datatip Renderer:

Markers:

Marker Radius:

Renderer:

The Marker Renderer property

Marker Fill

Defines the fill for standard markers.

Properties Advanced Actions

Series

Display Name:

Series Type:

Line Form:

Show Datatips:

Datatip:

Datatip Renderer:

Markers:

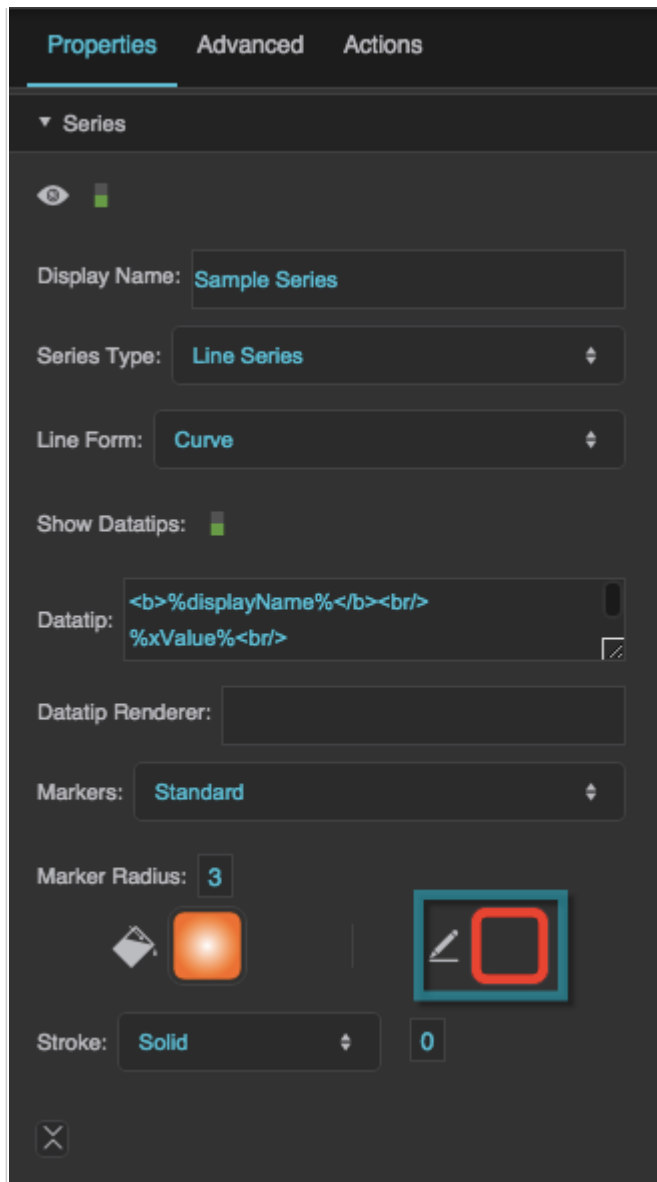
Marker Radius:

Stroke:

The Marker Fill property

Marker Stroke Color

Defines the border stroke color for standard markers.



Properties Advanced Actions

Series

Display Name: Sample Series

Series Type: Line Series

Line Form: Curve

Show Datatips:

Datatip: `%displayName%
%xValue%
`

Datatip Renderer:

Markers: Standard

Marker Radius: 3

Stroke: Solid 0

The Marker Stroke Color property

Marker Stroke Style

Defines the border stroke style for standard markers.

Properties Advanced Actions

Series

Display Name: Sample Series

Series Type: Line Series

Line Form: Curve

Show Datatips:

Datatip: `%displayName%
%xValue%
`

Datatip Renderer:

Markers: Standard

Marker Radius: 3

Stroke: Solid 0

The Marker Stroke Style property

Marker Stroke Weight

Defines the border stroke weight, in pixels, for standard markers.

Properties Advanced Actions

Series

Display Name: Sample Series

Series Type: Line Series

Line Form: Curve

Show Datatips:

Datatip: `%displayName%
%xValue%
`

Datatip Renderer:

Markers: Standard

Marker Radius: 3

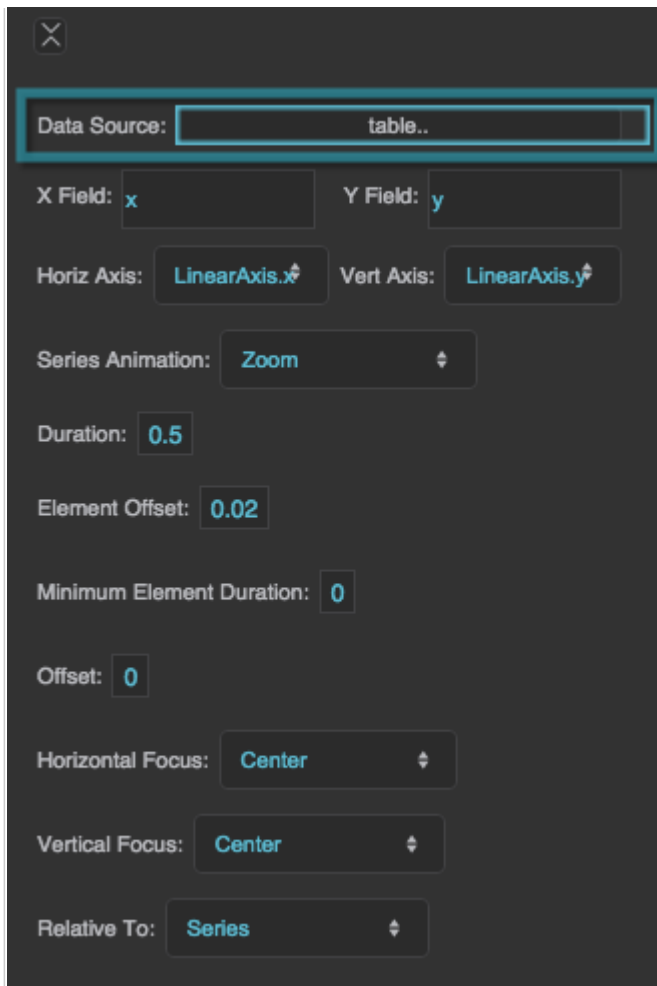
Stroke: Solid

Stroke Weight: 0

The Marker Stroke Weight property

Data Source

Specifies the table that this series uses as the data source.

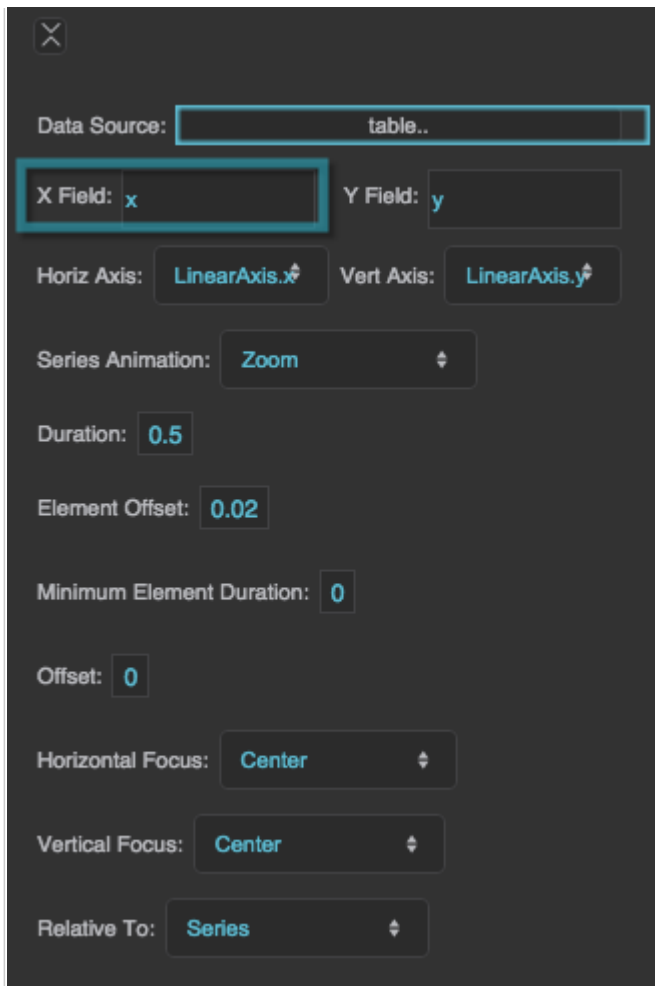


Series Properties dialog box showing various configuration options. The **Data Source** property is highlighted with a red rectangle and contains the text "table..". Other properties include X Field: x, Y Field: y, Horiz Axis: LinearAxis.x, Vert Axis: LinearAxis.y, Series Animation: Zoom, Duration: 0.5, Element Offset: 0.02, Minimum Element Duration: 0, Offset: 0, Horizontal Focus: Center, Vertical Focus: Center, and Relative To: Series.

The Data Source property

X Field

Specifies the table column that is mapped to the x-axis for this series.



Series Properties dialog box showing various configuration options:

- Data Source: table..
- X Field: x (highlighted)
- Y Field: y
- Horiz Axis: LinearAxis.x
- Vert Axis: LinearAxis.y
- Series Animation: Zoom
- Duration: 0.5
- Element Offset: 0.02
- Minimum Element Duration: 0
- Offset: 0
- Horizontal Focus: Center
- Vertical Focus: Center
- Relative To: Series

The X Field property

Y Field

Specifies the table column that is mapped to the y-axis for this series.

Data Source:
 X Field: Y Field:
 Horiz Axis: Vert Axis:
 Series Animation:
 Duration:
 Element Offset:
 Minimum Element Duration:
 Offset:
 Horizontal Focus:
 Vertical Focus:
 Relative To:

The Y Field property

Column Series Offset

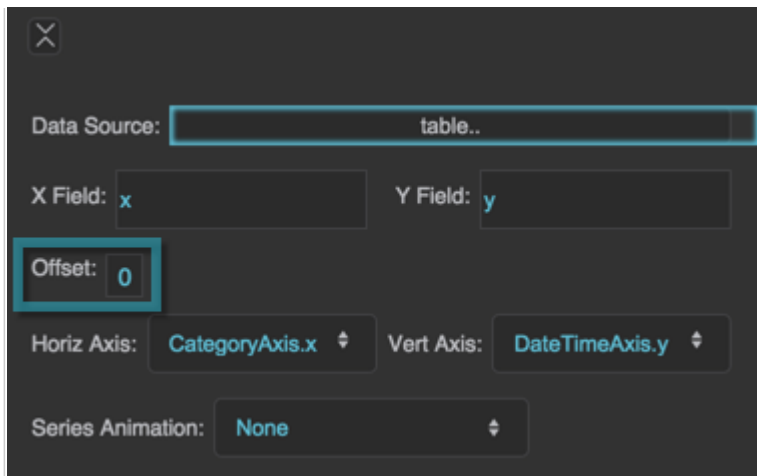
Moves columns to the left or right by a portion of the maximum column width. The maximum column width is equal to $1/n$ of the plot area width, with n being the total number of columns for the chart.

A **Column Series Offset** of -0.1 moves the columns to the left by 10% of this maximum width. A **Column Series Offset** of 0.1 moves the columns to the right by 10% of this maximum width.

This property is related to the **Column Width Ratio** property for the chart. The **Column Width Ratio** determines the width of each column in the chart as a percentage of the maximum column width.

Example

The **Column Width Ratio** is 60%, and there are two series. To offset the columns in series 1 by 10% of their width, use the value $(0.6 / 2) * 0.1 = 0.03$ for **Column Series Offset**.

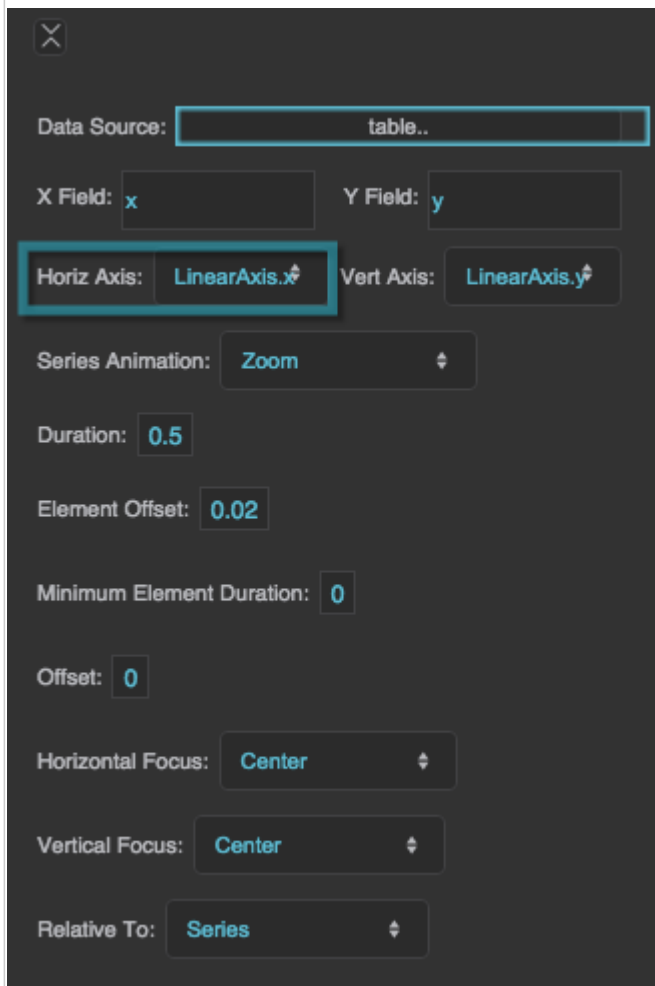


A screenshot of a dark-themed 'Series Properties' dialog box. The 'Data Source' field contains 'table..'. The 'X Field' is 'x' and the 'Y Field' is 'y'. The 'Offset' field, which is highlighted with a red box, contains the value '0'. The 'Horiz Axis' is set to 'CategoryAxis.x' and the 'Vert Axis' is 'DateTimeAxis.y'. The 'Series Animation' is set to 'None'.

The Column Series Offset property

Horizontal Axis

Specifies which of the chart's horizontal axes is used for this series.

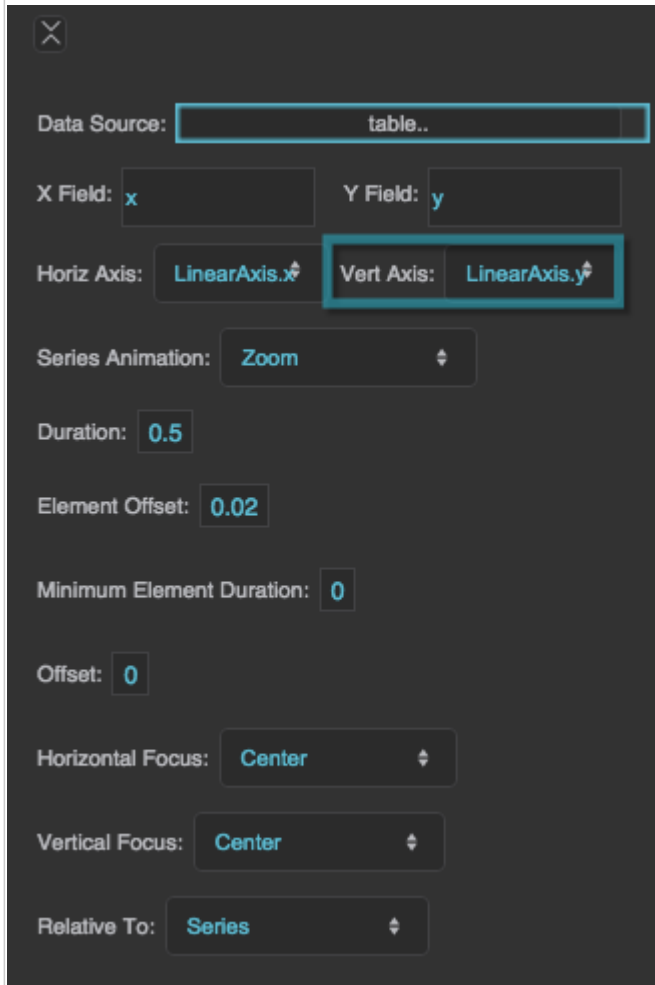


A screenshot of a dark-themed 'Series Properties' dialog box. The 'Data Source' field contains 'table..'. The 'X Field' is 'x' and the 'Y Field' is 'y'. The 'Horiz Axis' field, which is highlighted with a red box, is set to 'LinearAxis.x'. The 'Vert Axis' is 'LinearAxis.y'. The 'Series Animation' is set to 'Zoom'. The 'Duration' is '0.5', 'Element Offset' is '0.02', and 'Minimum Element Duration' is '0'. The 'Offset' is '0'. The 'Horizontal Focus' is 'Center', the 'Vertical Focus' is 'Center', and the 'Relative To' is 'Series'.

The Horizontal Axis property

Vertical Axis

Specifies which of the chart's vertical axes is used for this series.



The screenshot shows a dark-themed dialog box for series properties. The 'Vert Axis' dropdown menu is highlighted with a red rectangular box. The selected value in the dropdown is 'LinearAxis.y'. Other visible properties include: Data Source: 'table..', X Field: 'x', Y Field: 'y', Horiz Axis: 'LinearAxis.x', Series Animation: 'Zoom', Duration: '0.5', Element Offset: '0.02', Minimum Element Duration: '0', Offset: '0', Horizontal Focus: 'Center', Vertical Focus: 'Center', and Relative To: 'Series'.

The Vertical Axis property

Series Animation

Defines animation behavior for this series.

None

An updated chart replaces the old chart without any animation.

Interpolate

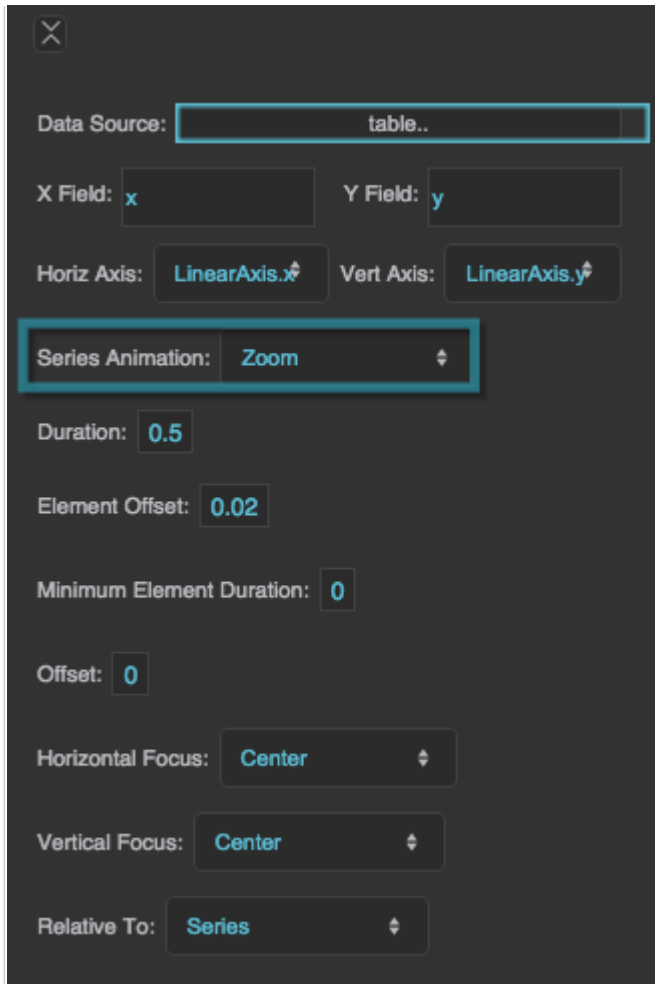
The series goes through a smooth transition, with the old chart as the first frame and the new chart as the final frame.

Slide

The series "slides" in and out of the chart boundaries from a direction that you specify.

Zoom

The series "implodes" and "explodes" from a focal point that you specify.



Series Properties dialog box showing various configuration options:

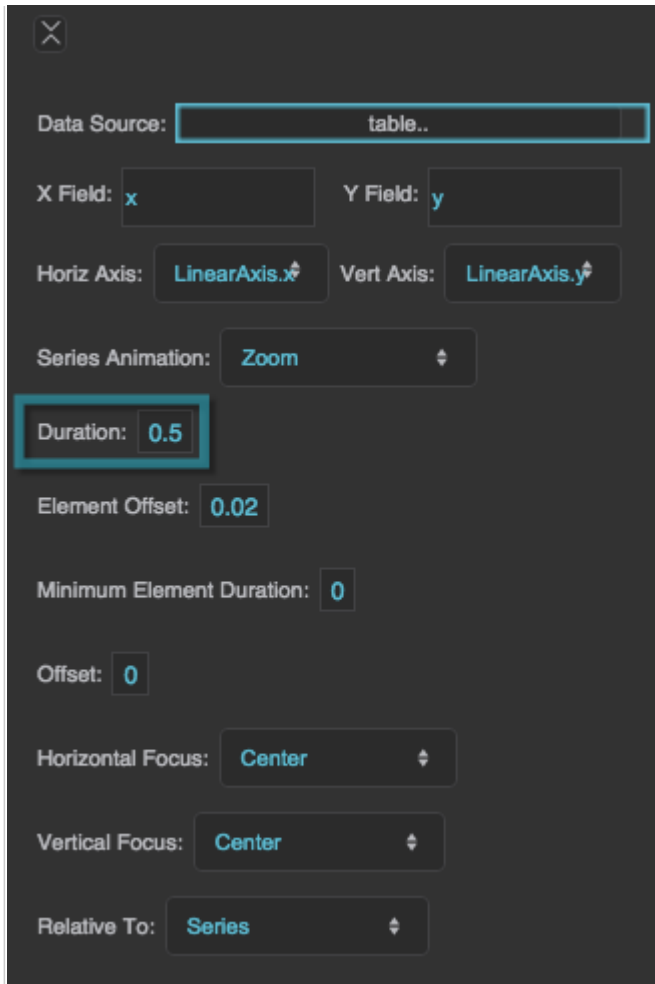
- Data Source: table..
- X Field: x
- Y Field: y
- Horiz Axis: LinearAxis.x
- Vert Axis: LinearAxis.y
- Series Animation: Zoom (highlighted)
- Duration: 0.5
- Element Offset: 0.02
- Minimum Element Duration: 0
- Offset: 0
- Horizontal Focus: Center
- Vertical Focus: Center
- Relative To: Series

The Series Animation property

Duration

Defines the duration of the animation in seconds.

The **Element Offset** and **Minimum Element Duration** properties can cause the animation duration to be longer than that specified by the **Duration** property.



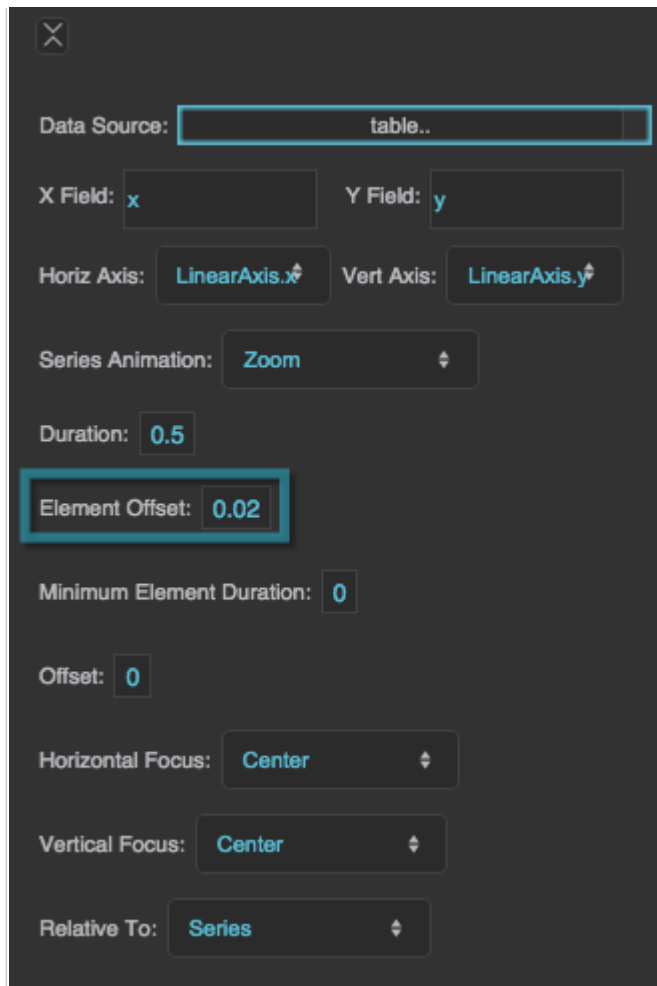
Series Properties dialog box showing various configuration options. The **Duration** property is highlighted with a red box and set to 0.5. Other visible properties include Data Source (table..), X Field (x), Y Field (y), Horiz Axis (LinearAxis.x), Vert Axis (LinearAxis.y), Series Animation (Zoom), Element Offset (0.02), Minimum Element Duration (0), Offset (0), Horizontal Focus (Center), Vertical Focus (Center), and Relative To (Series).

The Duration property

Element Offset

Specifies the amount of time, in seconds, that the animation of each element in the series is delayed. A value of zero means that all elements in the series begin animating at the same time and finish at the same time. A value of 1 means that the second element starts and finishes animating one second after the first element, and so on.

The **Element Offset** and **Minimum Element Duration** properties can cause the animation duration to be longer than that specified by the **Duration** property.



Series Properties dialog box showing various configuration options. The **Element Offset** property is highlighted with a red box and set to **0.02**. Other visible properties include:

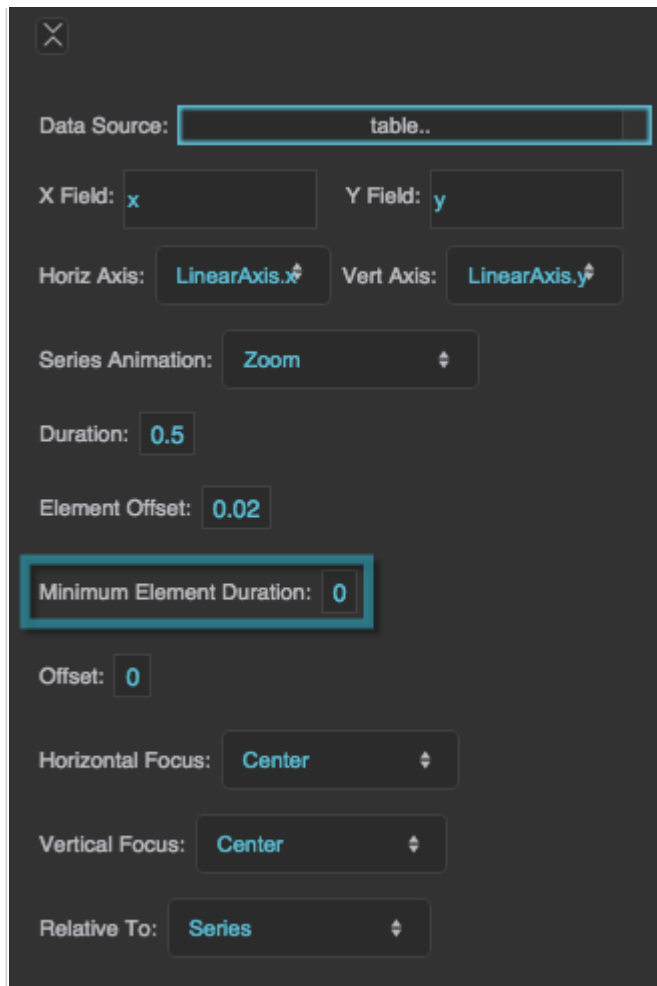
- Data Source: table..
- X Field: x
- Y Field: y
- Horiz Axis: LinearAxis.x
- Vert Axis: LinearAxis.y
- Series Animation: Zoom
- Duration: 0.5
- Minimum Element Duration: 0
- Offset: 0
- Horizontal Focus: Center
- Vertical Focus: Center
- Relative To: Series

The Element Offset property

Minimum Element Duration

Specifies the minimum amount of time, in seconds, that an individual element takes to complete the animation.

The **Element Offset** and **Minimum Element Duration** properties can cause the animation duration to be longer than that specified by the **Duration** property.



The screenshot shows a dark-themed dialog box for 'Series Properties'. It contains several configuration options:

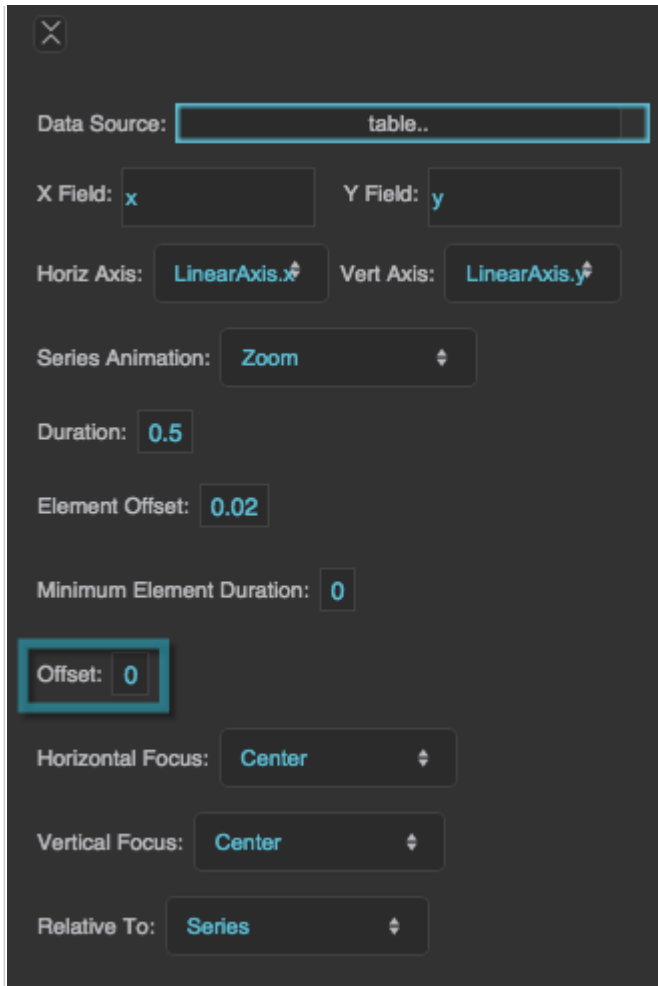
- Data Source:** A text field containing 'table..'.
- X Field:** A text field containing 'x'.
- Y Field:** A text field containing 'y'.
- Horiz Axis:** A dropdown menu showing 'LinearAxis.x'.
- Vert Axis:** A dropdown menu showing 'LinearAxis.y'.
- Series Animation:** A dropdown menu showing 'Zoom'.
- Duration:** A text field containing '0.5'.
- Element Offset:** A text field containing '0.02'.
- Minimum Element Duration:** A text field containing '0', which is highlighted with a red rectangular border.
- Offset:** A text field containing '0'.
- Horizontal Focus:** A dropdown menu showing 'Center'.
- Vertical Focus:** A dropdown menu showing 'Center'.
- Relative To:** A dropdown menu showing 'Series'.

The Minimum Element Duration property

Offset

Specifies the amount of time, in seconds, that the animation is delayed.

Use this property to stagger effects on multiple series.



Series Properties dialog box showing various configuration options. The 'Offset' property is highlighted with a red box and has a value of 0. Other properties include Data Source (table..), X Field (x), Y Field (y), Horiz Axis (LinearAxis.x), Vert Axis (LinearAxis.y), Series Animation (Zoom), Duration (0.5), Element Offset (0.02), Minimum Element Duration (0), Horizontal Focus (Center), Vertical Focus (Center), and Relative To (Series).

The Offset property

Easing

Specifies the rate of change over time for this animation.

Linear

The animation's rate of change is constant.

Ease In

The animation starts slowly and accelerates linearly as it executes.

Ease Out

The animation starts with a fast change rate and decelerates linearly as it executes.

Ease In Out

The animation starts slowly, accelerates linearly, and then decelerates linearly as it executes.

Cubic In

The animation starts slowly and accelerates cubically as it executes.

Cubic Out

The animation starts with a fast change rate and decelerates cubically as it executes.

Cubic In Out

The animation starts slowly, accelerates cubically, and then decelerates cubically as it executes.

Elastic In

The animation's rate of change starts on a small-amplitude sine wave. The sine wave grows as the animation executes.

Elastic Out

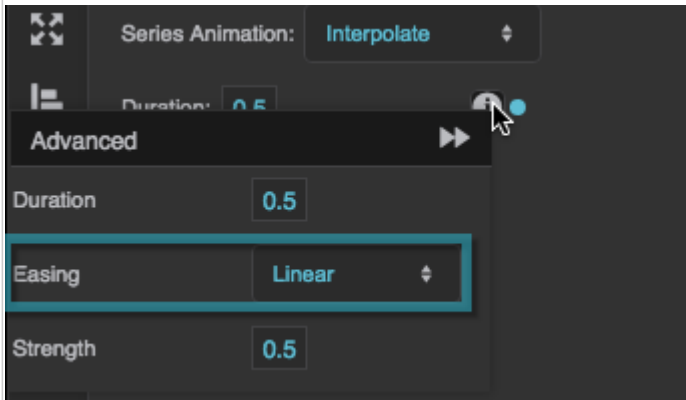
The animation's rate of change starts on a large-amplitude sine wave. The sine wave decays as the animation executes.

Elastic In Out

The animation's rate of change starts on a small-amplitude sine wave. The sine wave grows and then decays as the animation executes.

Bounce

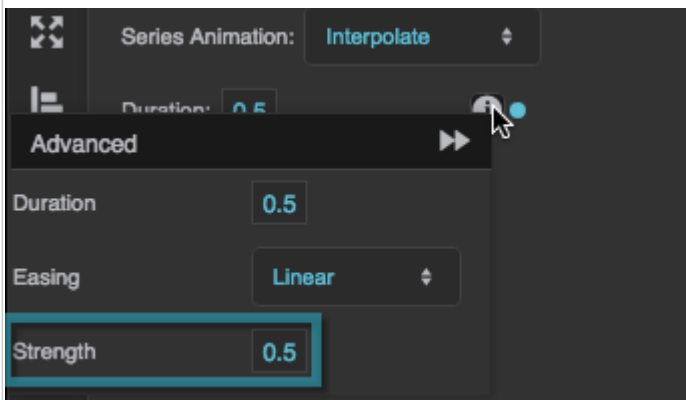
The animation starts with a fast change rate, and decelerates to zero with an effect similar to a ball falling and bouncing on a floor.



The Easing property

Strength

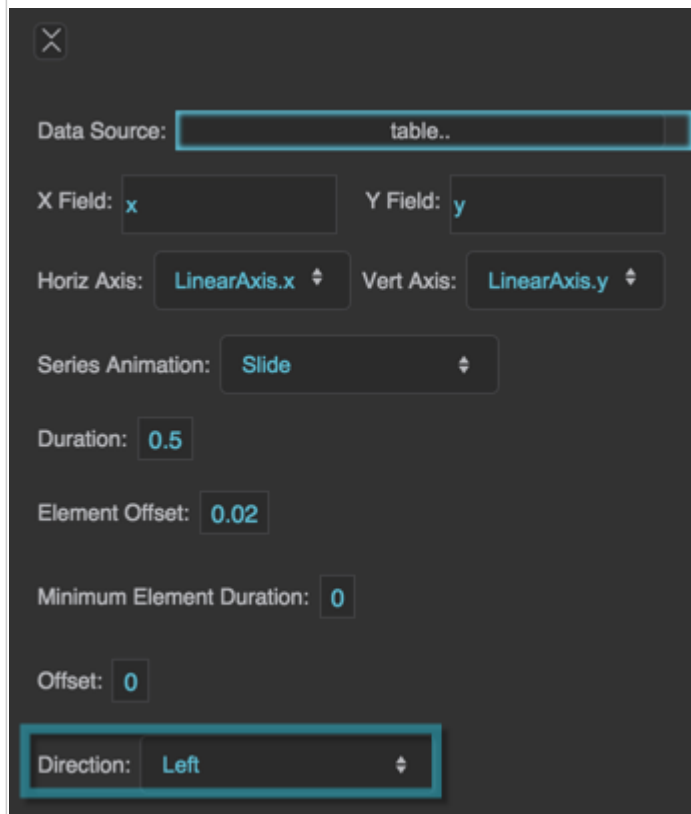
Affects the differential or the change rate of the easing function. A value of 0.5 is the default. Values below 0.5 decrease the differential or the change rate, making the easing appear less pronounced. Values above 0.5 increase the differential or the change rate, making the easing appear more pronounced.



The Strength property

Direction

Defines the direction toward which the series slides. For example, if this property is set to Left, the series slides onto the chart from right to left.



The Direction property

Horizontal Focus

Together with **Vertical Focus** and **Relative To**, determines the focal point of the zoom animation.

Left

The zoom animation begins at the left of the bounding box defined in **Relative To**.

Right

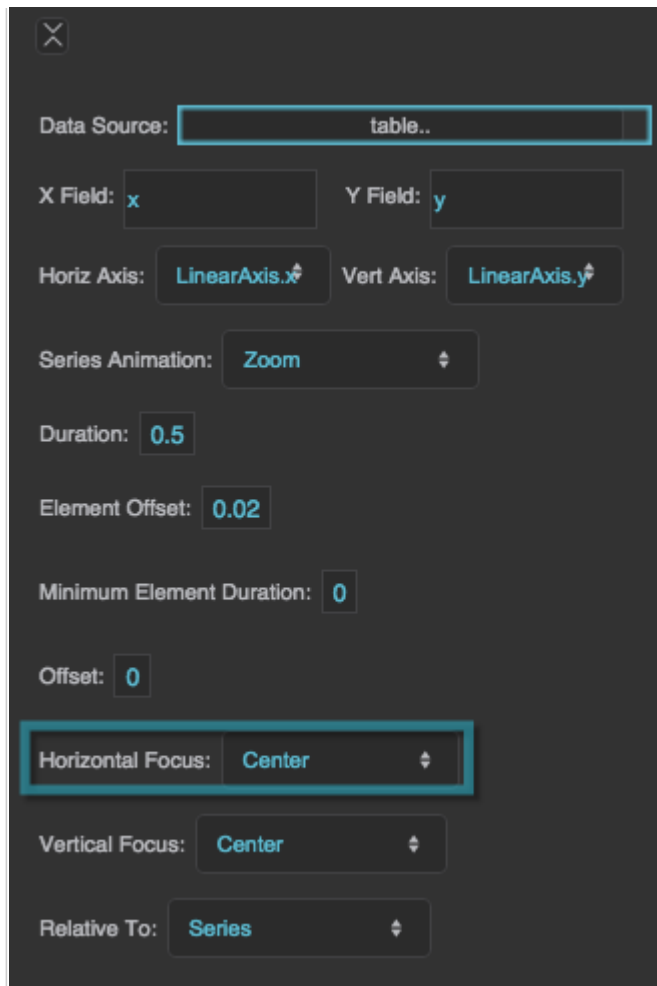
The zoom animation begins at the right of the bounding box defined in **Relative To**.

Center

The zoom animation begins at the horizontal center of the bounding box defined in **Relative To**.

Null

If **Horizontal Focus** is null, and **Vertical Focus** is not null, then the focus is a horizontal line rather than a point. If both values are null, then the focal point is the center of the bounding box.



✕

Data Source:

X Field: Y Field:

Horiz Axis: Vert Axis:

Series Animation:

Duration:

Element Offset:

Minimum Element Duration:

Offset:

Horizontal Focus:

Vertical Focus:

Relative To:

The Horizontal Focus property

Vertical Focus

Together with **Horizontal Focus** and **Relative To**, determines the focal point of the zoom animation.

Top

The zoom animation begins at the top of the bounding box defined in **Relative To**.

Bottom

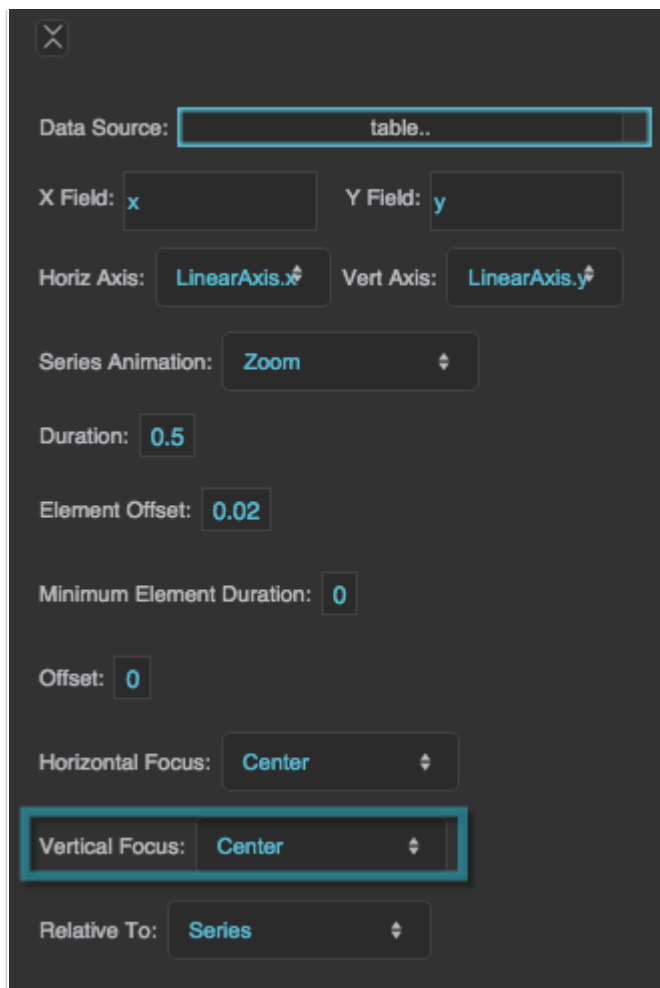
The zoom animation begins at the bottom of the bounding box defined in **Relative To**.

Center

The zoom animation begins at the vertical center of the bounding box defined in **Relative To**.

Null

If **Vertical Focus** is null, and **Horizontal Focus** is not null, then the focus is a vertical line rather than a point. If both values are null, then the focal point is the center of the bounding box.



The screenshot shows a dark-themed dialog box for 'Series Properties'. It contains several configuration options:

- Data Source:** A text input field containing 'table..'.
- X Field:** A text input field containing 'x'.
- Y Field:** A text input field containing 'y'.
- Horiz Axis:** A dropdown menu showing 'LinearAxis.x'.
- Vert Axis:** A dropdown menu showing 'LinearAxis.y'.
- Series Animation:** A dropdown menu showing 'Zoom'.
- Duration:** A numeric input field containing '0.5'.
- Element Offset:** A numeric input field containing '0.02'.
- Minimum Element Duration:** A numeric input field containing '0'.
- Offset:** A numeric input field containing '0'.
- Horizontal Focus:** A dropdown menu showing 'Center'.
- Vertical Focus:** A dropdown menu showing 'Center', which is highlighted with a red rectangular border.
- Relative To:** A dropdown menu showing 'Series'.

The Vertical Focus property

Relative To

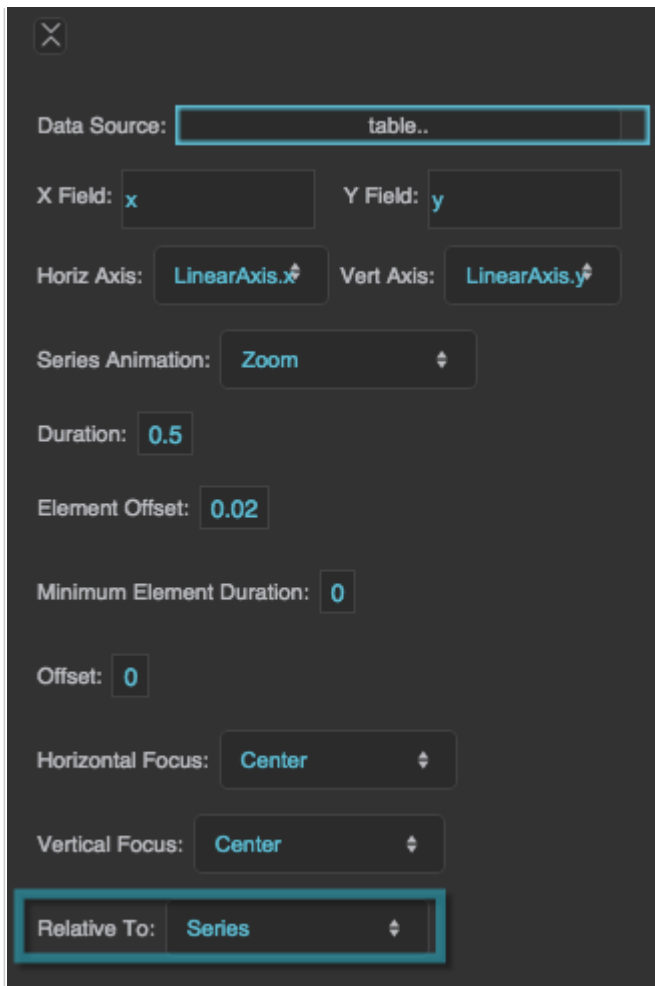
Controls the bounding box used to determine the focal point of the zoom animation. Used together with **Horizontal Focus** and **Vertical Focus**.

Series

The bounding box tightly surrounds the horizontal and vertical minimums and maximums of the series data.

Chart

The bounding box tightly surrounds the plot area of the chart.



Series Properties dialog box showing various configuration options:

- Data Source: table..
- X Field: x
- Y Field: y
- Horiz Axis: LinearAxis.x
- Vert Axis: LinearAxis.y
- Series Animation: Zoom
- Duration: 0.5
- Element Offset: 0.02
- Minimum Element Duration: 0
- Offset: 0
- Horizontal Focus: Center
- Vertical Focus: Center
- Relative To: Series

The Relative To property

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