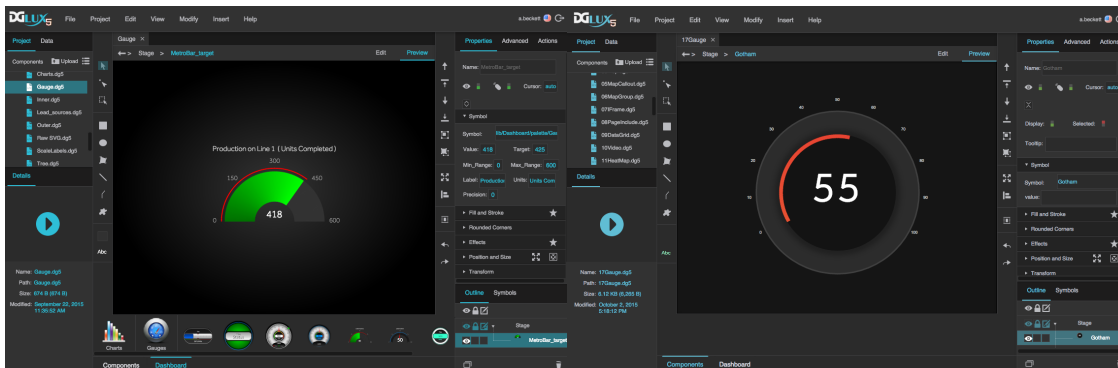


Designing Gauges

A gauge is a widget that displays the current value of a data metric. Gauges can include a scale on which the current value is marked. They also can include a text readout of the current value. As with all objects in DGLux5, you can use [bindings](#) to ensure that the [properties](#) of a gauge will change depending on the current data. DGLux5 includes pre-made gauges, and you can also design your own.

For a detailed reference of properties that affect gauges, see [Common Properties](#) and [Gauge Scale Properties](#).



A pre-made gauge component in DGLux5 Another gauge created in DGLux5

Video Tutorial: Creating Custom Gauges in DGLux5

More video tutorials are [here](#).

Use a Pre-Made DGLux5 Gauge

To use a pre-made DGLux5 gauge widget, you must have the Dashboard [widget library](#) installed. A normal DGLux5 installation includes this library.

To use a pre-made gauge:

1. Import the Dashboard widget library into your project, by following the steps in [Import a Widget Library](#).
2. In the [widget palette](#) at the bottom of the screen, expand **Dashboard** and then **Gauges** to display the pre-made DGLux5 gauges.
3. Find the gauge you want, and drag it to the [Document window](#).

This inserts the gauge widget in your file.

4. Make sure the gauge that you inserted is selected, and then in the [Property Inspector](#), under **Symbol**, edit the properties of the gauge according to the following table. Which properties are available depends on which widget you choose.

Property Name	Importance, When Available	Steps
Value or Status	Crucial	Bind a data metric to this property using the steps in Bind from a Data Metric . Alternatively, you can bind a data value that has been loaded by a Data Services block in the dataflow .
On	Crucial	Bind the same data metric to On that you bound to Value or Status . Value holds the string value for text readouts, and On holds the boolean value for determining other properties, such as color.
Units	Important	Enter the units, such as "kW," "cfm," or "acres."
Min and Max , or Min_Range and Max_Range	Important	Edit the lowest and highest values for the gauge scale.
Title	Important	Enter a title for the gauge, such as "Airflow."
Target	Optional	Enter the target value for this metric. If the target value changes based on other factors, you can use the dataflow to define a dynamic target value, and bind the result to Target .
Various color properties	Optional	Choose the colors for the appropriate gauge pieces and conditions.
Start Angle , End Angle	Optional	Edit the positions on the circle where you want the gauge scales to start and end.

Create an Example Gauge

These steps create a basic, data-driven gauge widget with a track scale, label scale, and text readout. First, you style the appearance of the gauge. Next, you configure the gauge's behavior in reaction to data. Finally, you tie live data to the gauge.

Work from a Mockup

If you want to create a gauge based on a mockup:

1. [Insert](#) the mockup image on the stage.
2. In the [Outline](#), next to the image, click the empty square in the  lock column so that a lock icon appears. This prevents you from editing the image.
3. Refer to the image as you work, and then delete it when you are done.

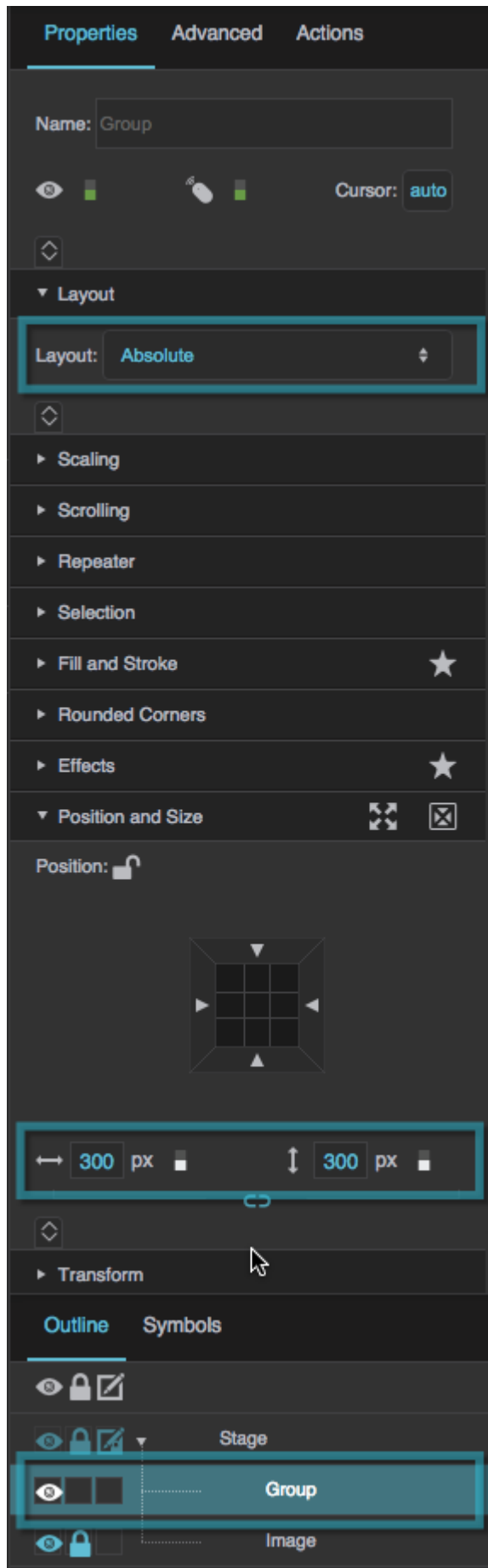
If your mockup does not include color codes, use a color picker browser plugin to match colors. You can

paste the hex values into the DGLux5 [fill and stroke pop-ups](#).

Style the Gauge Appearance

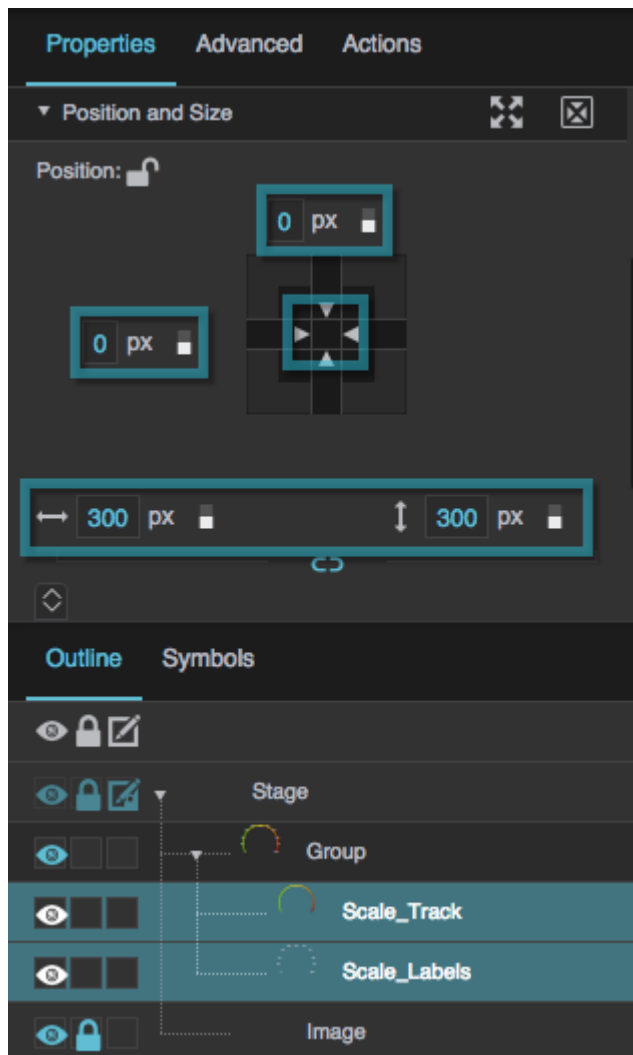
To style the gauge appearance:

1. Create a group:
 1. Right-click in the [Outline](#) or [Document window](#) and select **Insert > Components > Group**.
 2. In the [Property Inspector](#), under **Position and Size**, set the width and height of the group to 300px and 300px. You can make the size dynamic when the gauge is finished.
3. Make sure the group's layout is Absolute.

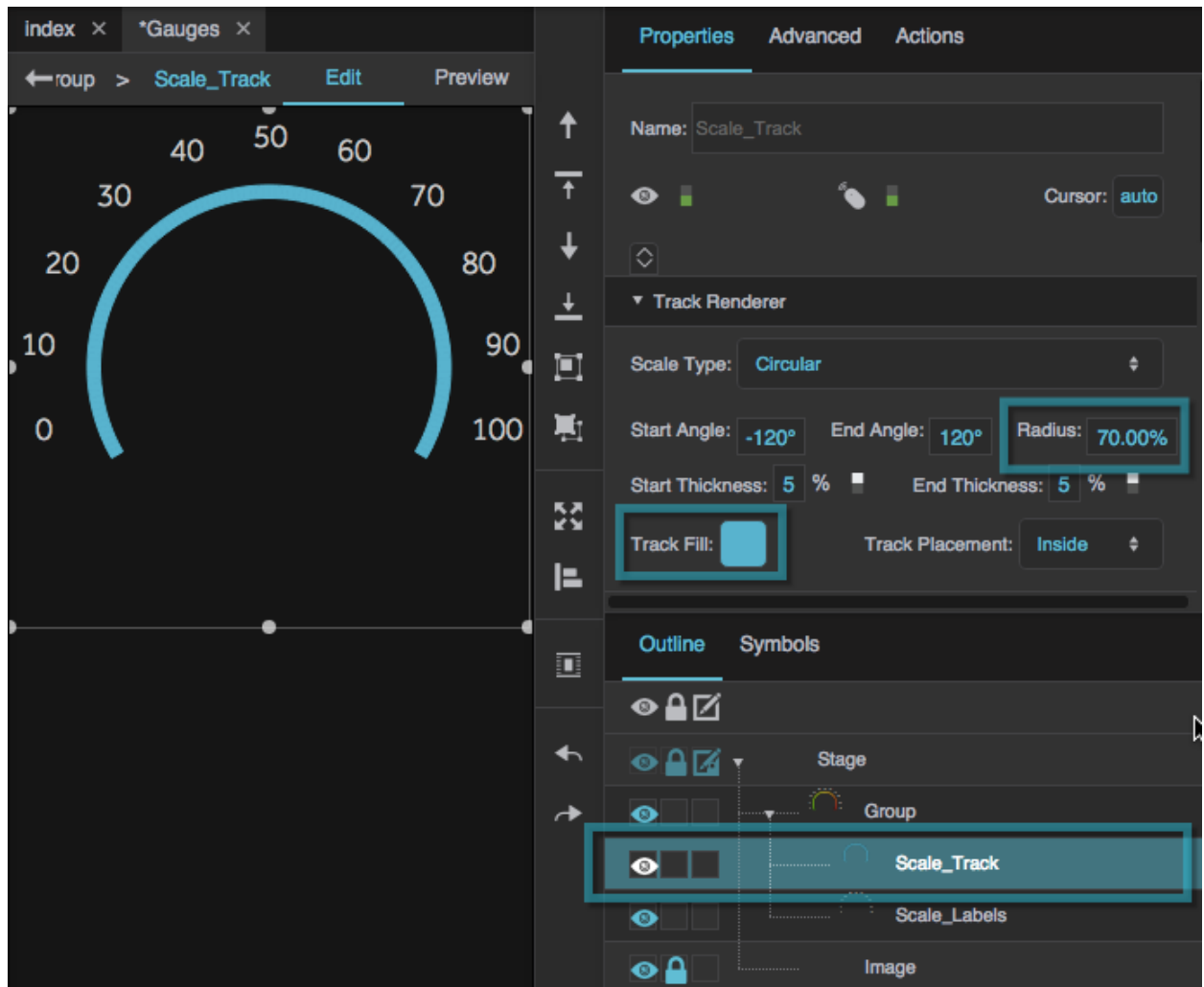


2. Create scales inside the group:
 1. Right-click the group and select **Insert > Gauge > Scale Labels**.
 2. Right-click the group again, and select **Insert > Gauge > Scale Track**.
 3. Select both scale components by Shift+clicking them in the Outline, and then set the width and height to 300px and 300px.
 4. With the scale components selected, under **Position and Size**, click the middle square in the grid, and enter 0 in both fields that appear.

This centers the scales in the group.

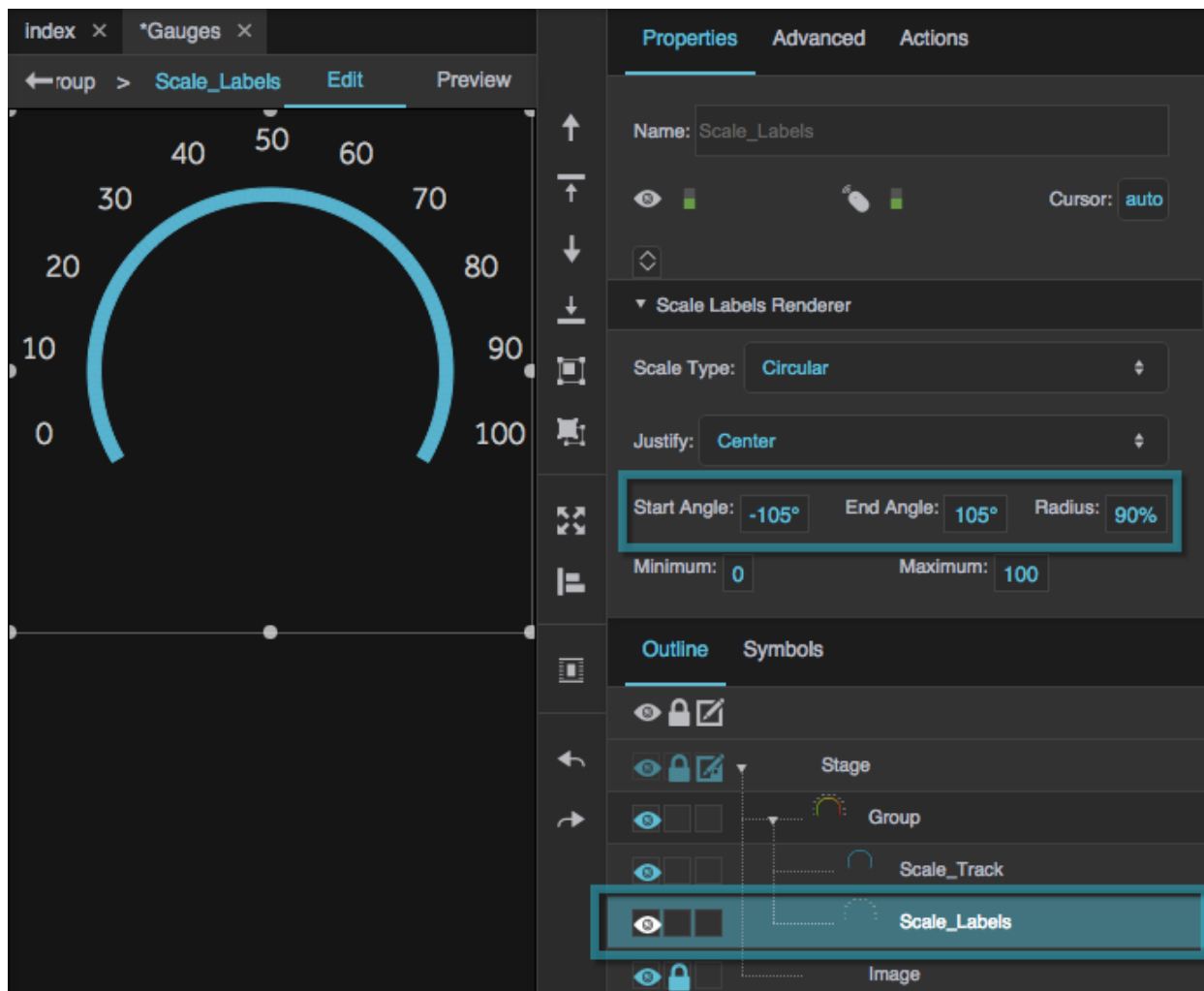


3. In the Outline, select the scale track, and then set its properties:
 1. Set **Radius** to 70%.
 2. Set **Track Fill** to the fill that you want.

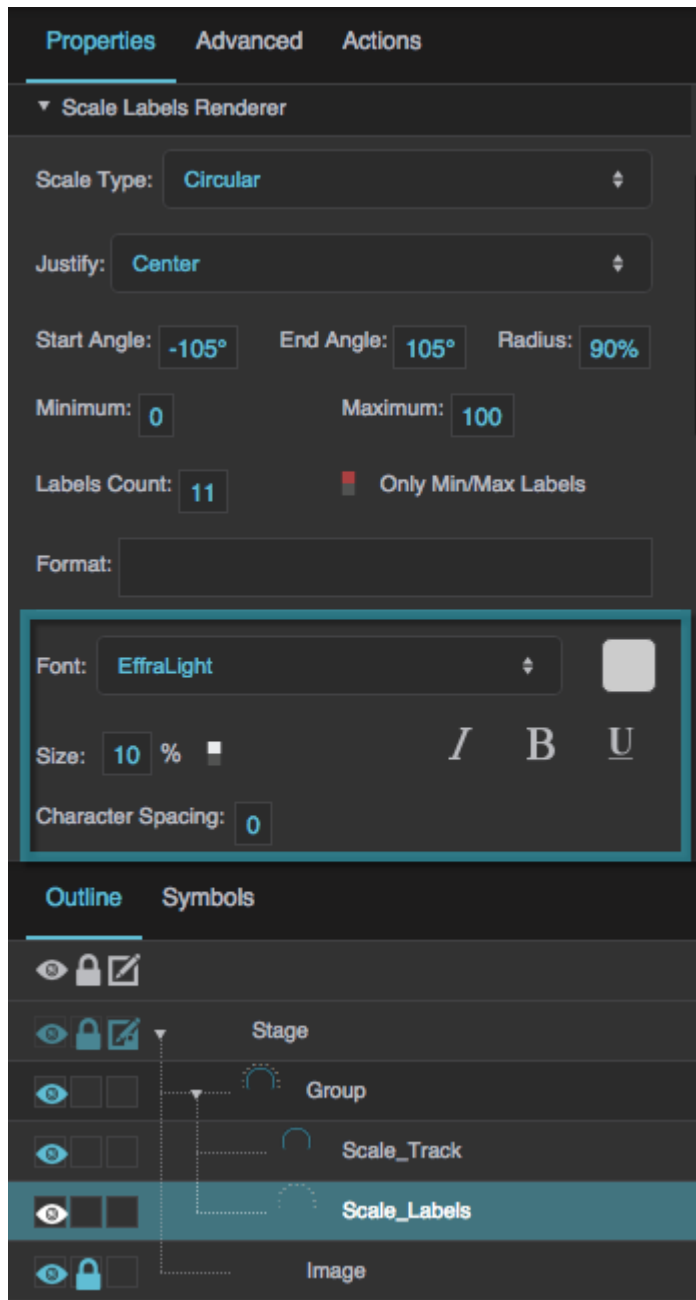


4. In the Outline, select the scale labels, and then set the properties:

1. Set **Radius** to 90%.
2. Set **Start Angle** and **End Angle** to -105 and 105.

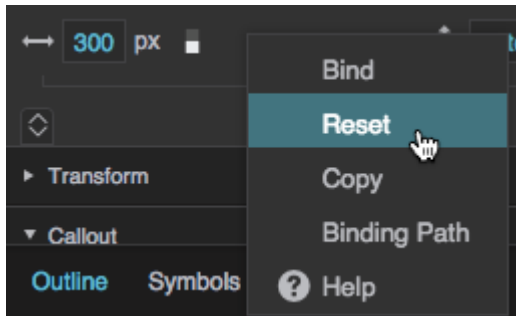


3. Set the font styling of the scale labels to your preferred styling.

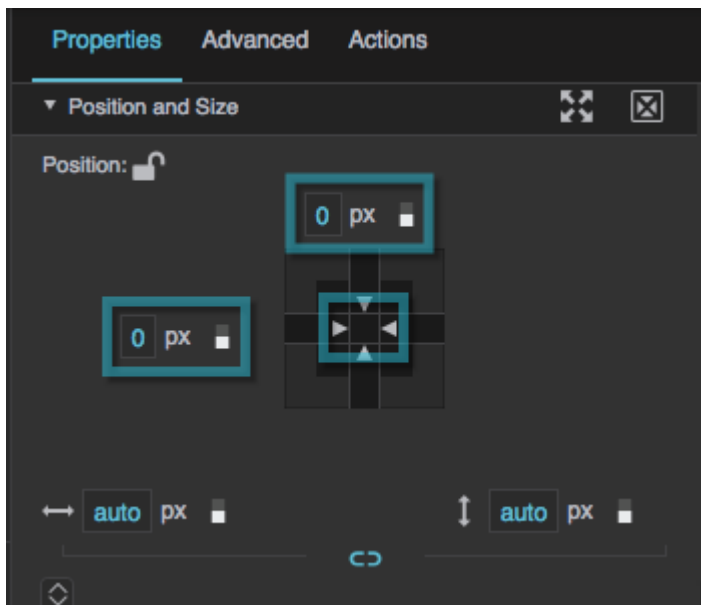


5. Create a text readout:

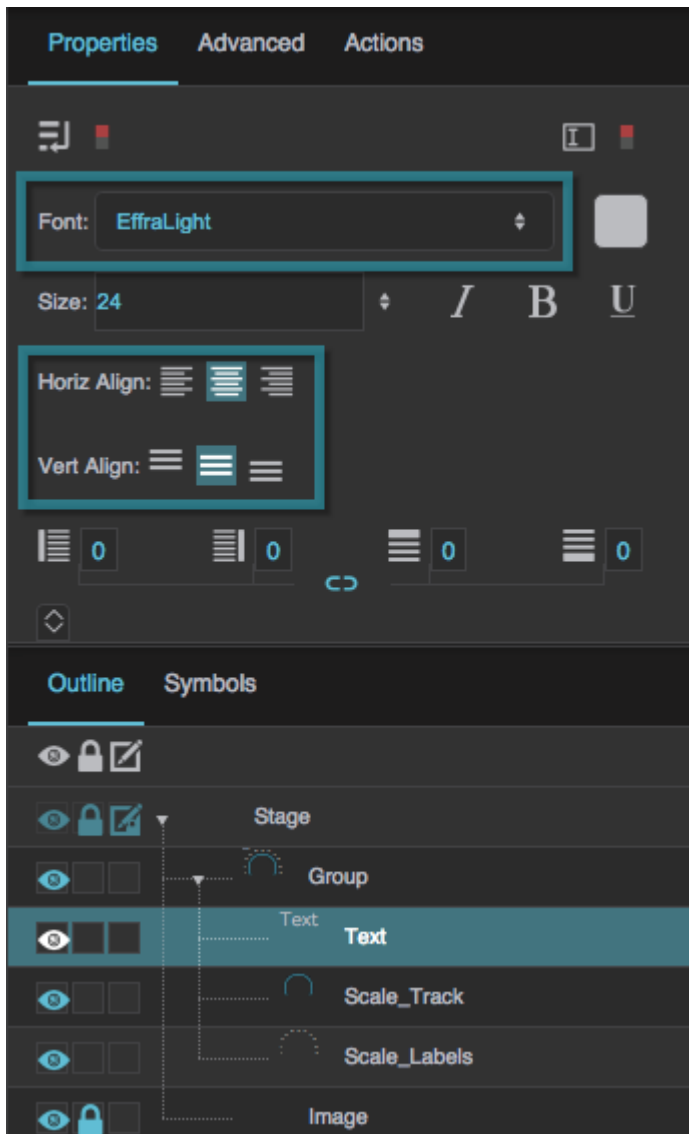
1. In the Outline, right-click the group, and select **Insert > Components > Text**.
2. With the text component selected, under **Position and Size**, ensure **Width** and **Height** are set to Auto. If **Width** or **Height** is not Auto, hover over the property until a blue dot appears. Then, click the blue dot and select **Reset**.



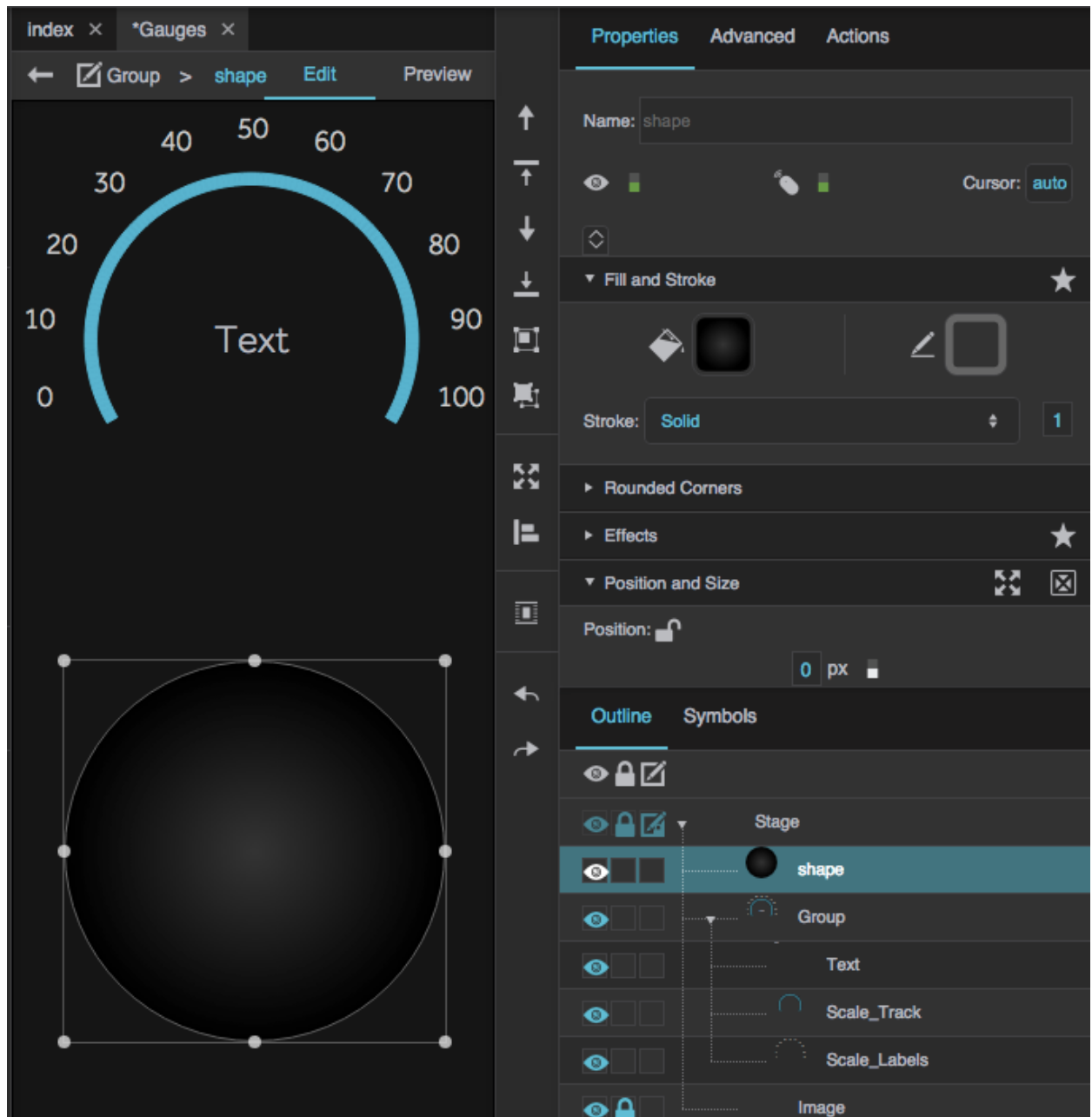
3. With the text component selected, under Position and Size, click the middle square in the grid, and enter 0 in both fields that appear.



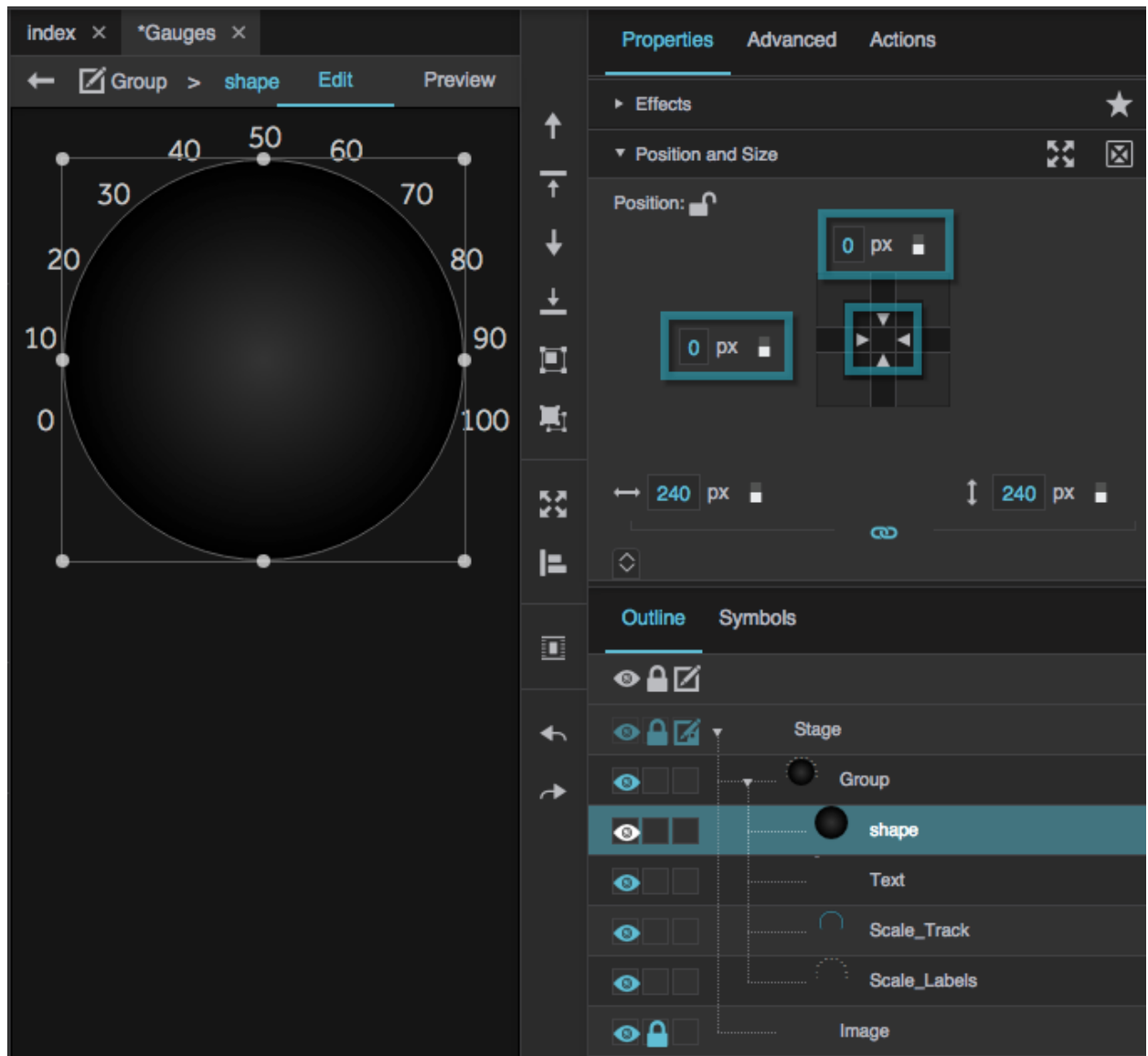
4. Set the text component's font styling to your preferred styling.
5. Set the **Horizontal Alignment** and **Vertical Alignment** properties to centered.



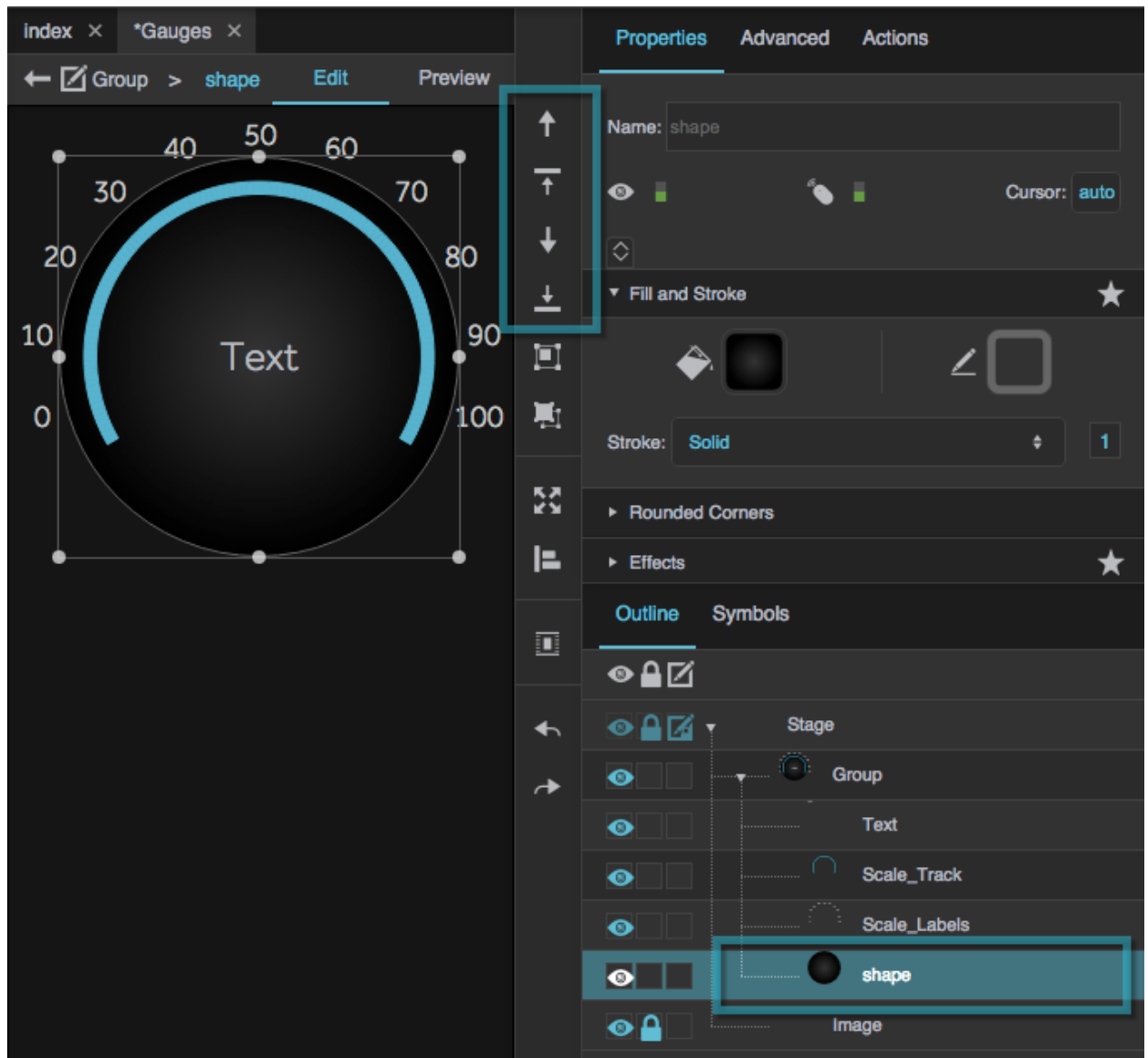
6. Create one or more circles to go behind the gauge information.
 1. Use the **Ellipse tool**. Hold Shift while dragging the tool to create a circle.
 2. Style the circles' fill and stroke to your preference



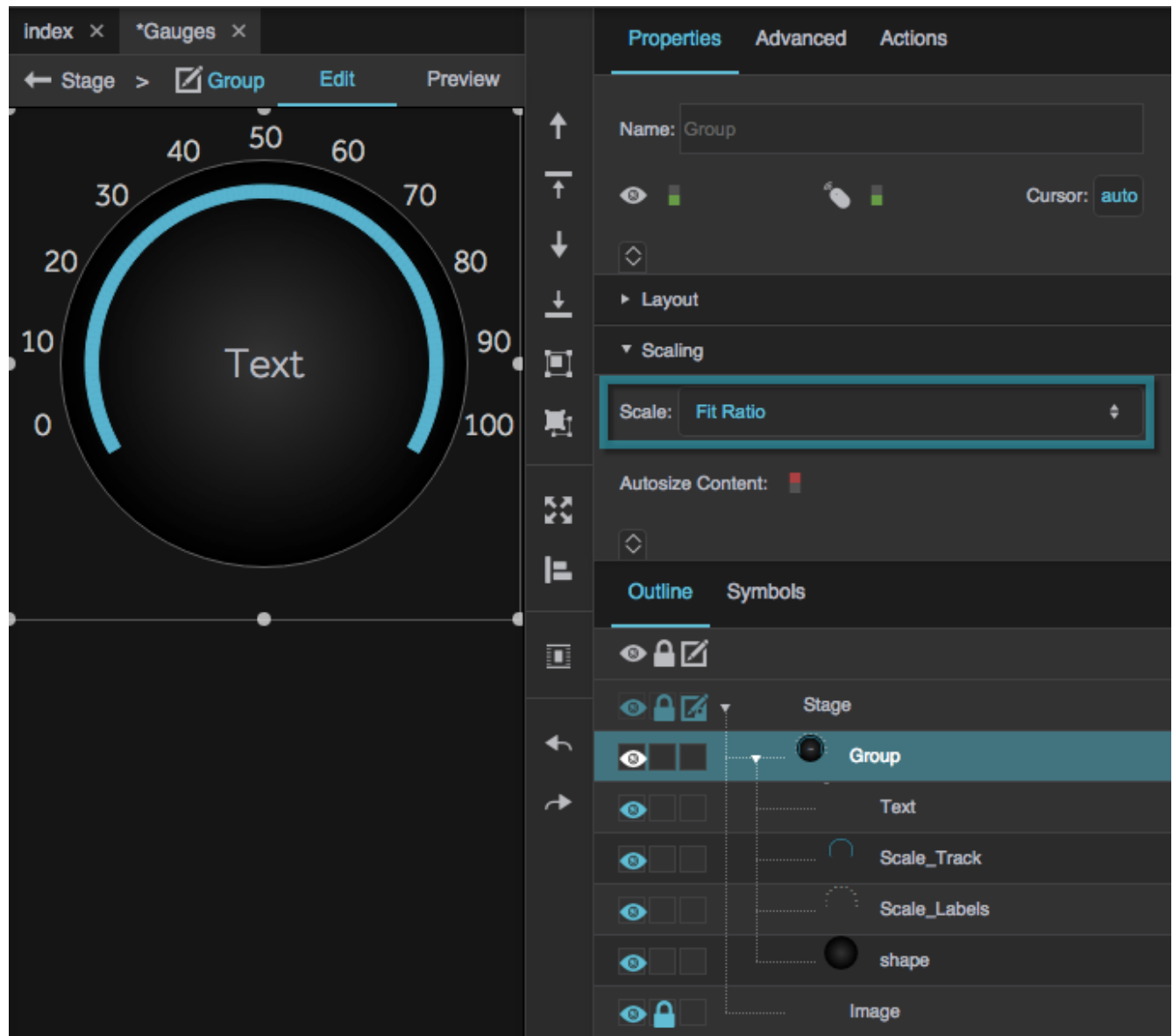
3. Drag the circles into the group to add them.
4. With the circles selected, under Position and Size, click the middle square in the grid, and enter 0 in both fields that appear.



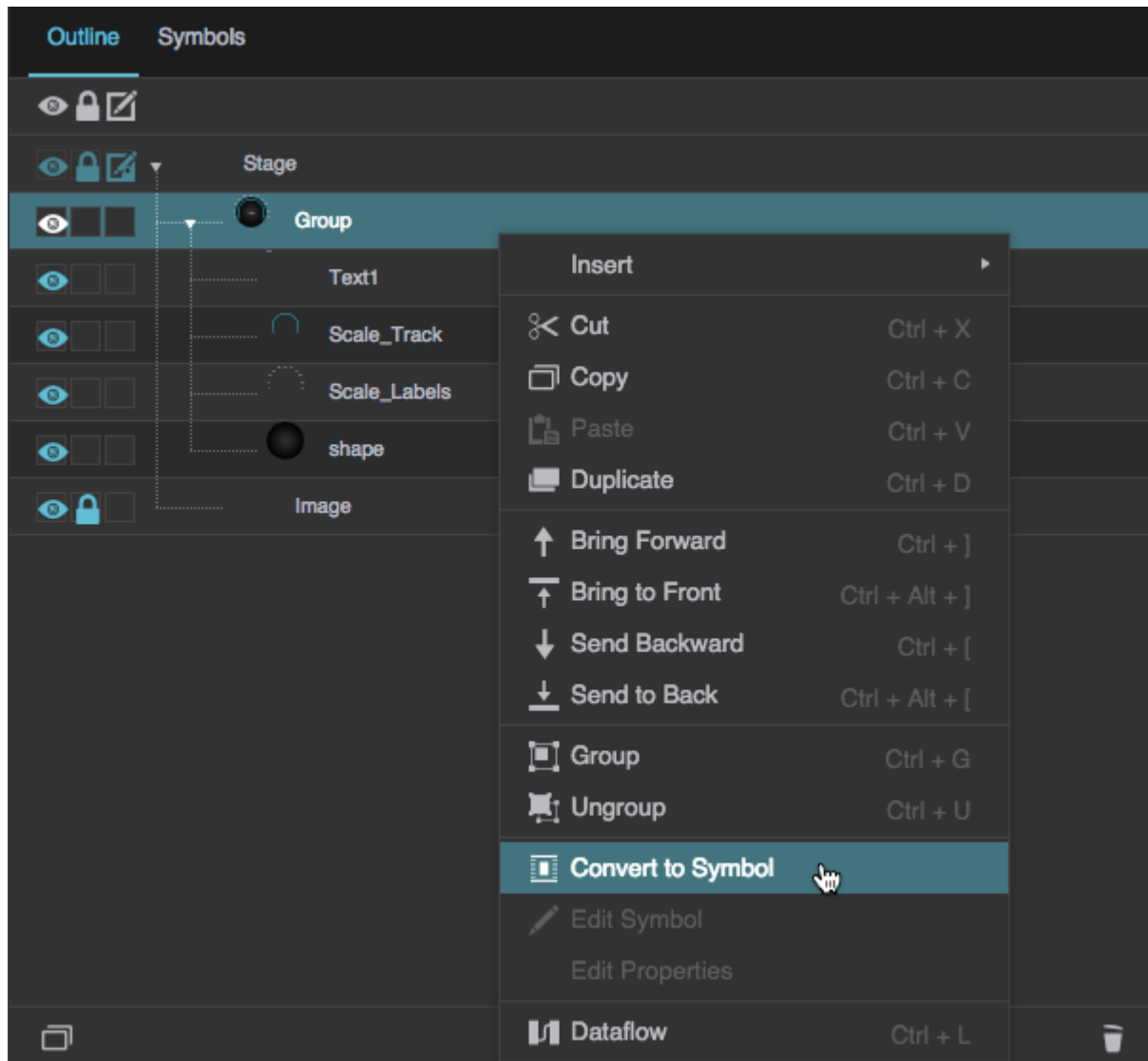
5. Use the Outline to stack the group's items in the order you want them by selecting them and clicking **↓ Send Backward** and **↑ Bring Forward**.



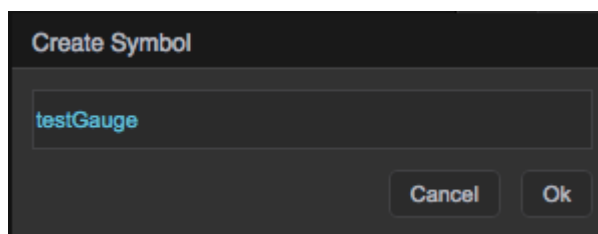
7. Select the group, and in the Property Inspector, under **Scaling**, select **Fit Ratio**.



8. Right-click the group, and select  **Convert to Symbol**.



9. When prompted, create a name for your symbol.

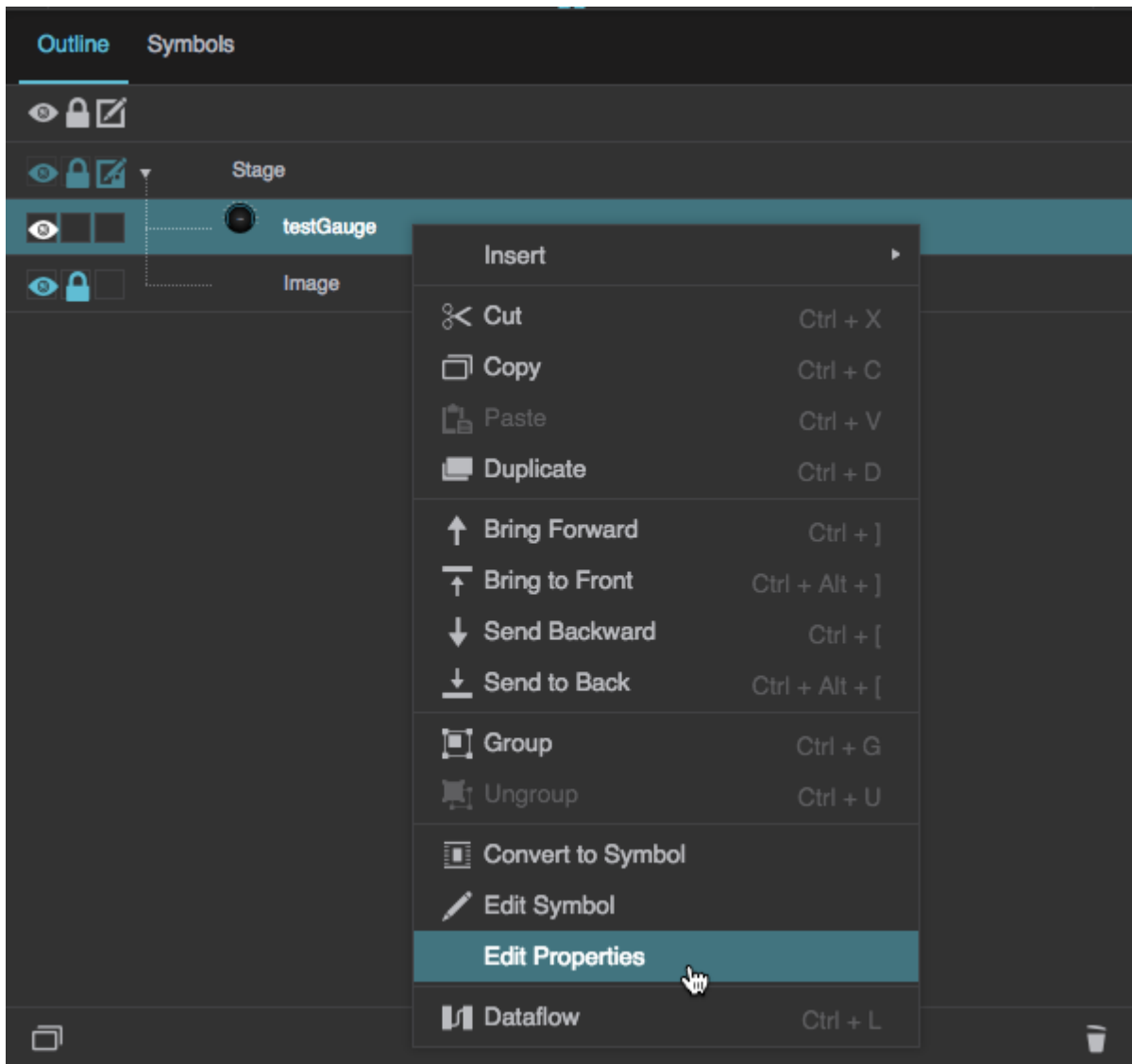


Create the Gauge Behavior

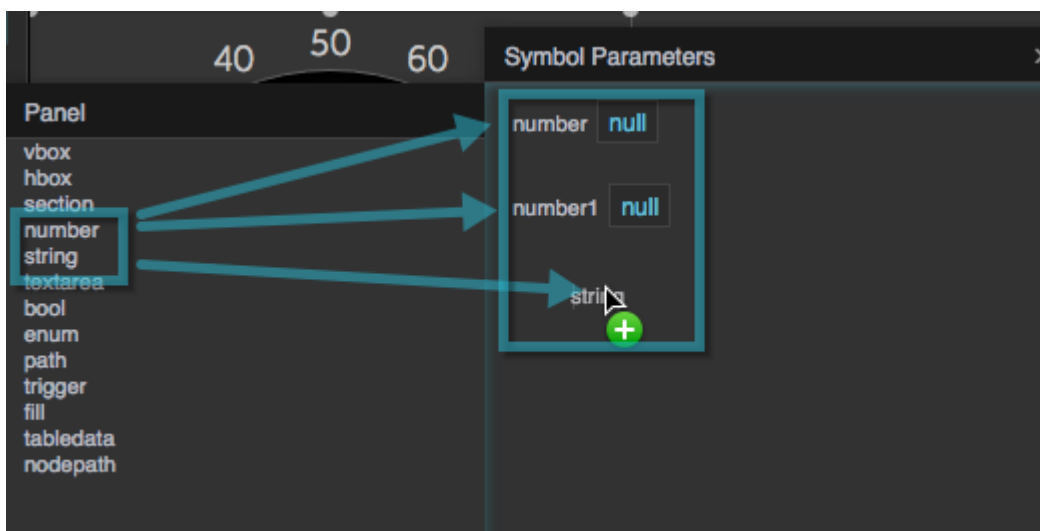
To create some behavior for this gauge:

1. Add symbol parameters:

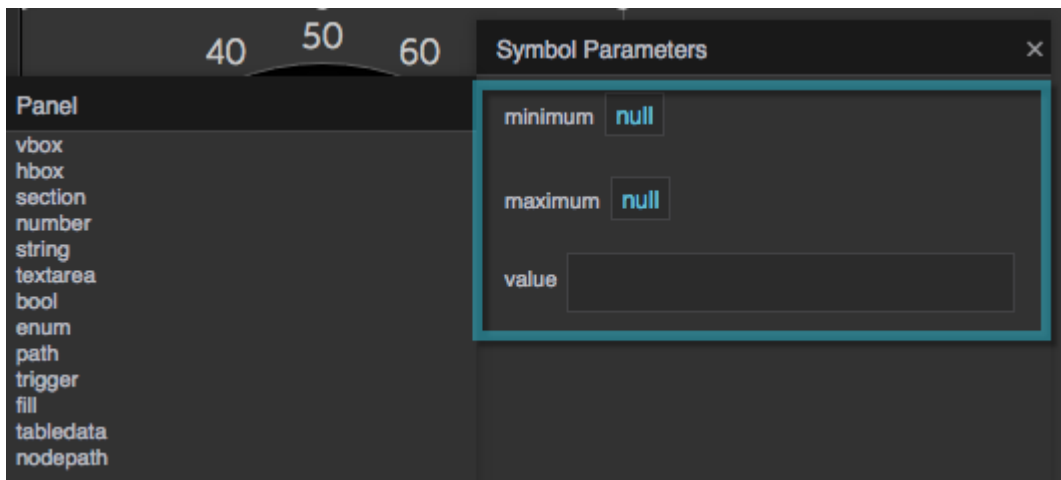
1. Right-click the symbol, and select **Edit Properties**.



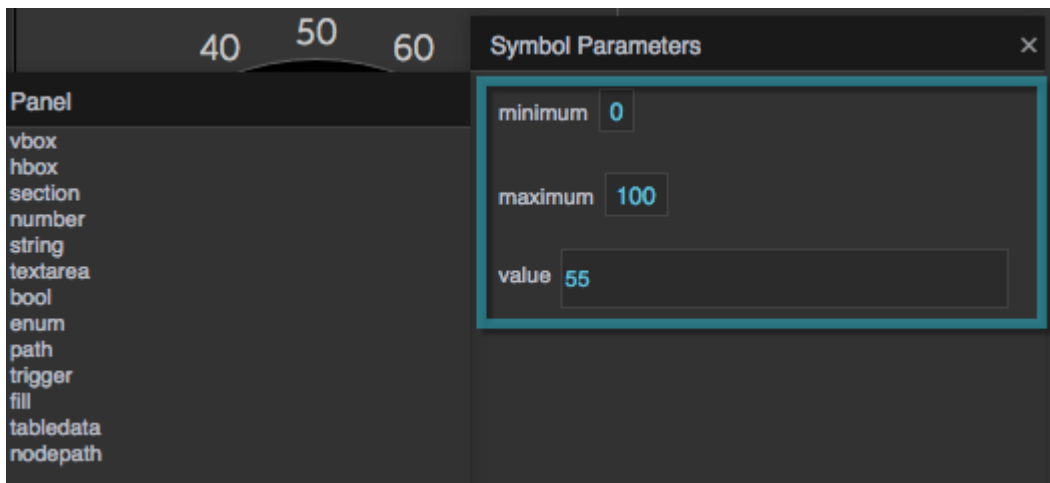
2. Drag two instances of **number** and one instance of **string** from the left panel to the right panel.



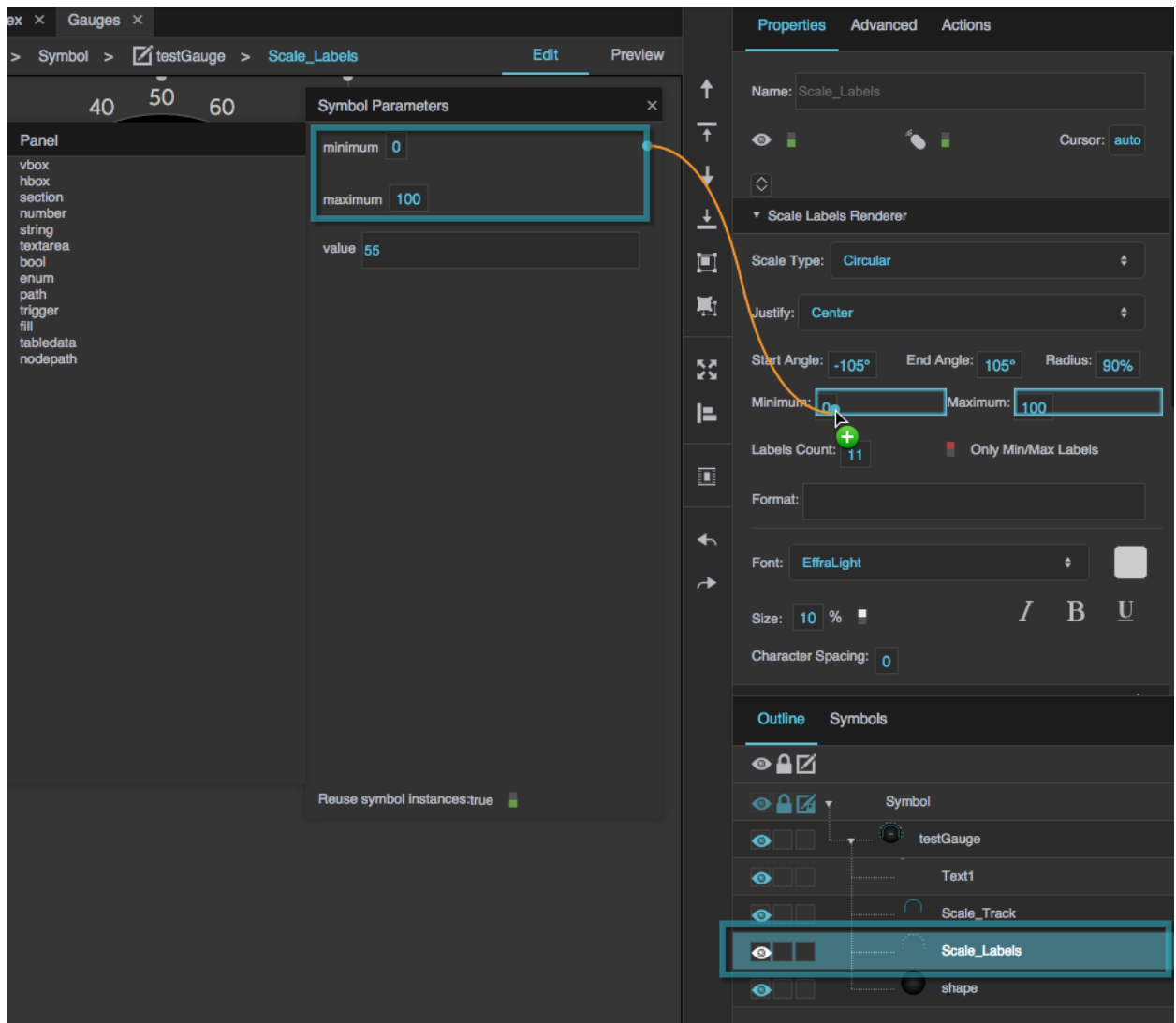
3. Name the two number parameters **minimum** and **maximum**, by double-clicking the labels and editing them.
4. Name the string parameter **value**.



5. Enter the default values 0 and 100 for **minimum** and **maximum**, and 55 for **value**.

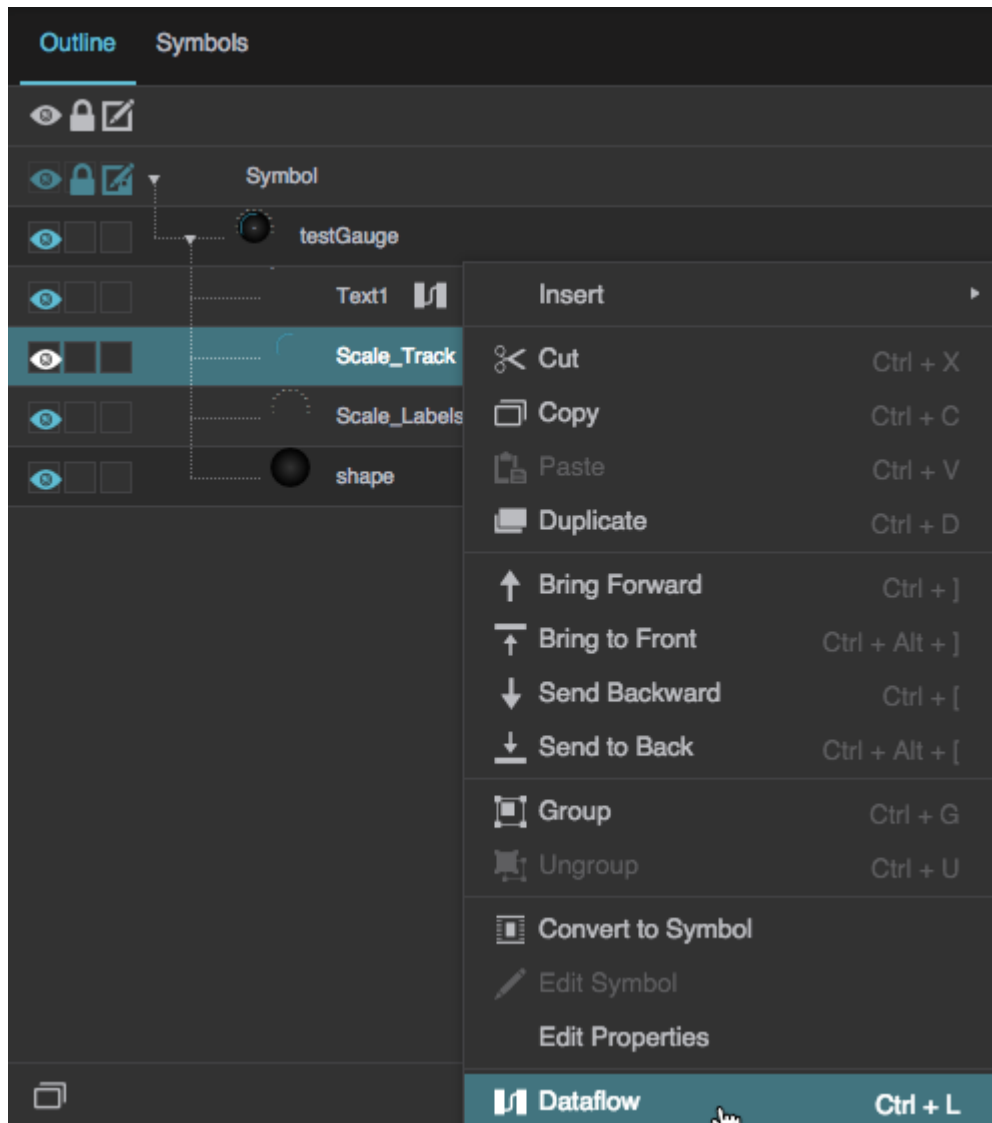


6. In the Outline, select the Scale Labels component.
7. **Bind** the **minimum** and **maximum** symbol parameters to the **Minimum** and **Maximum** Scale Labels properties.

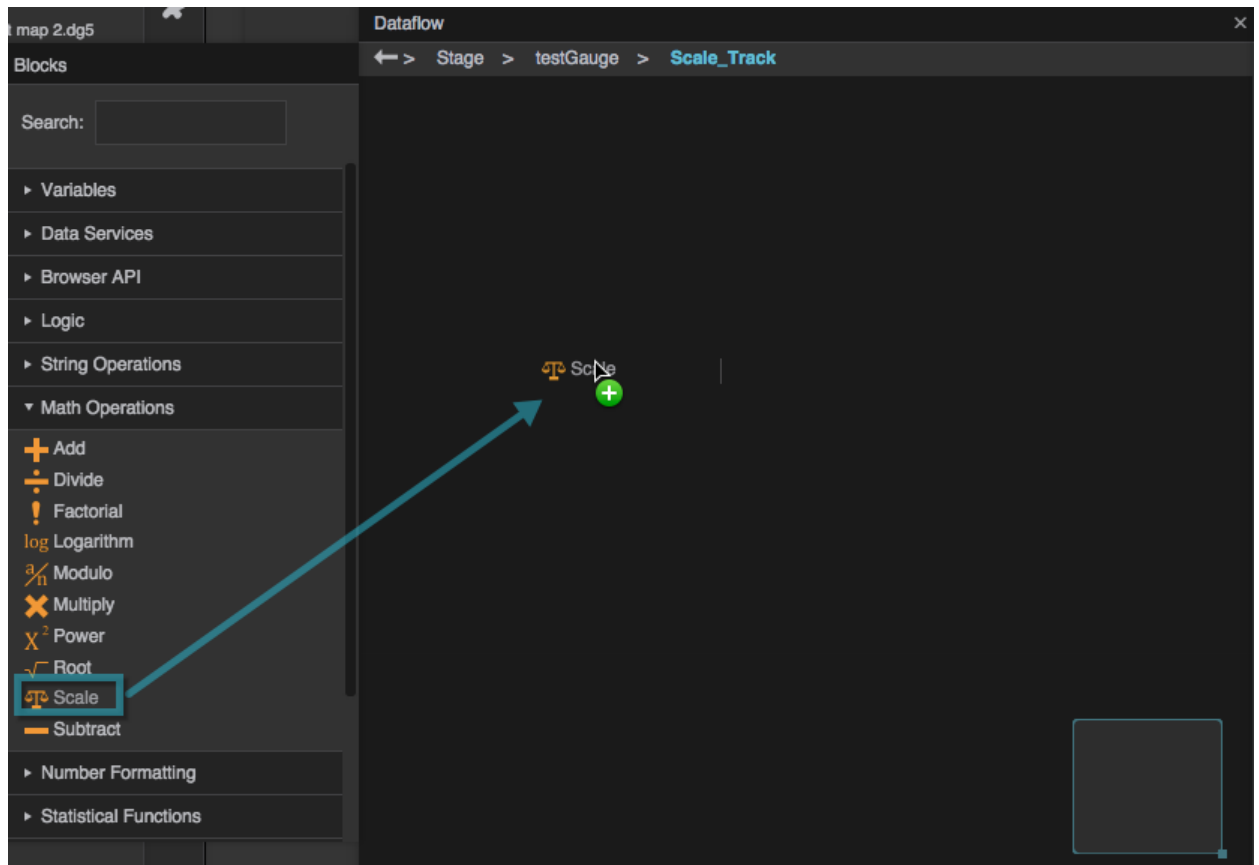


2. Make the track's end angle dynamic:

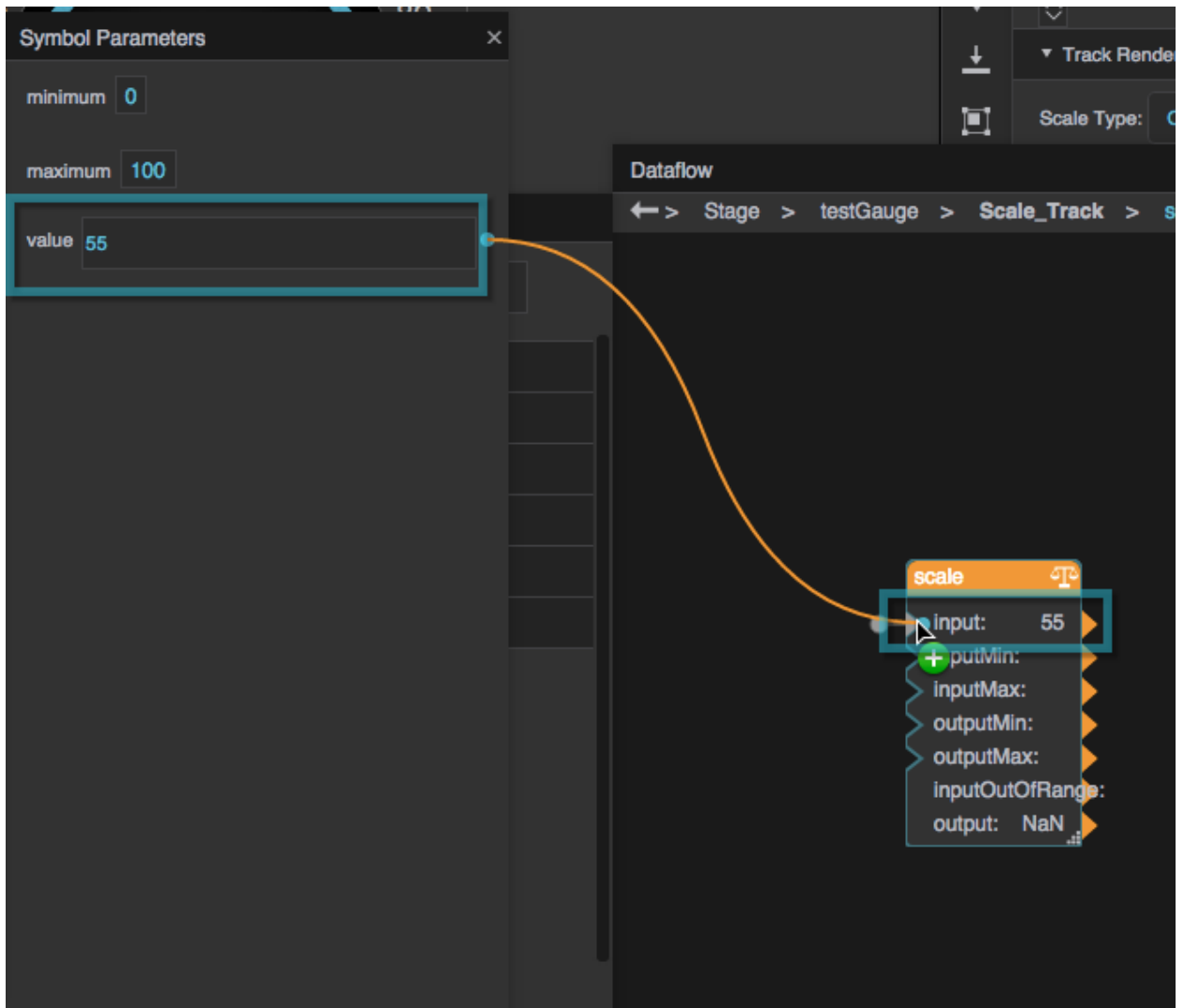
1. Right-click the scale track, and select  **Dataflow**.



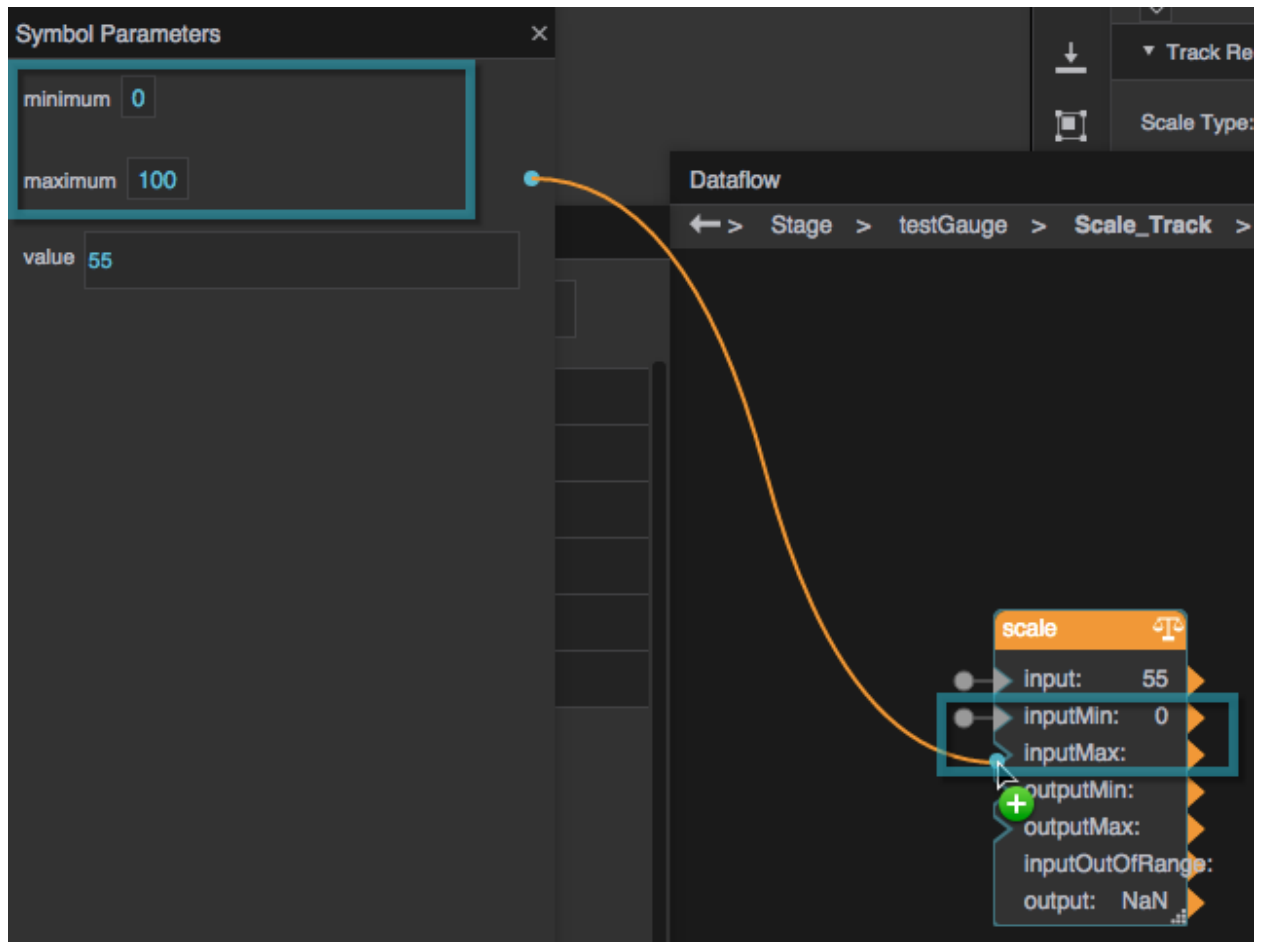
2. In the dataflow blocks palette, under **Math Operations**, find the [Scale](#) block, and drag the [Scale](#) block to the dataflow view.



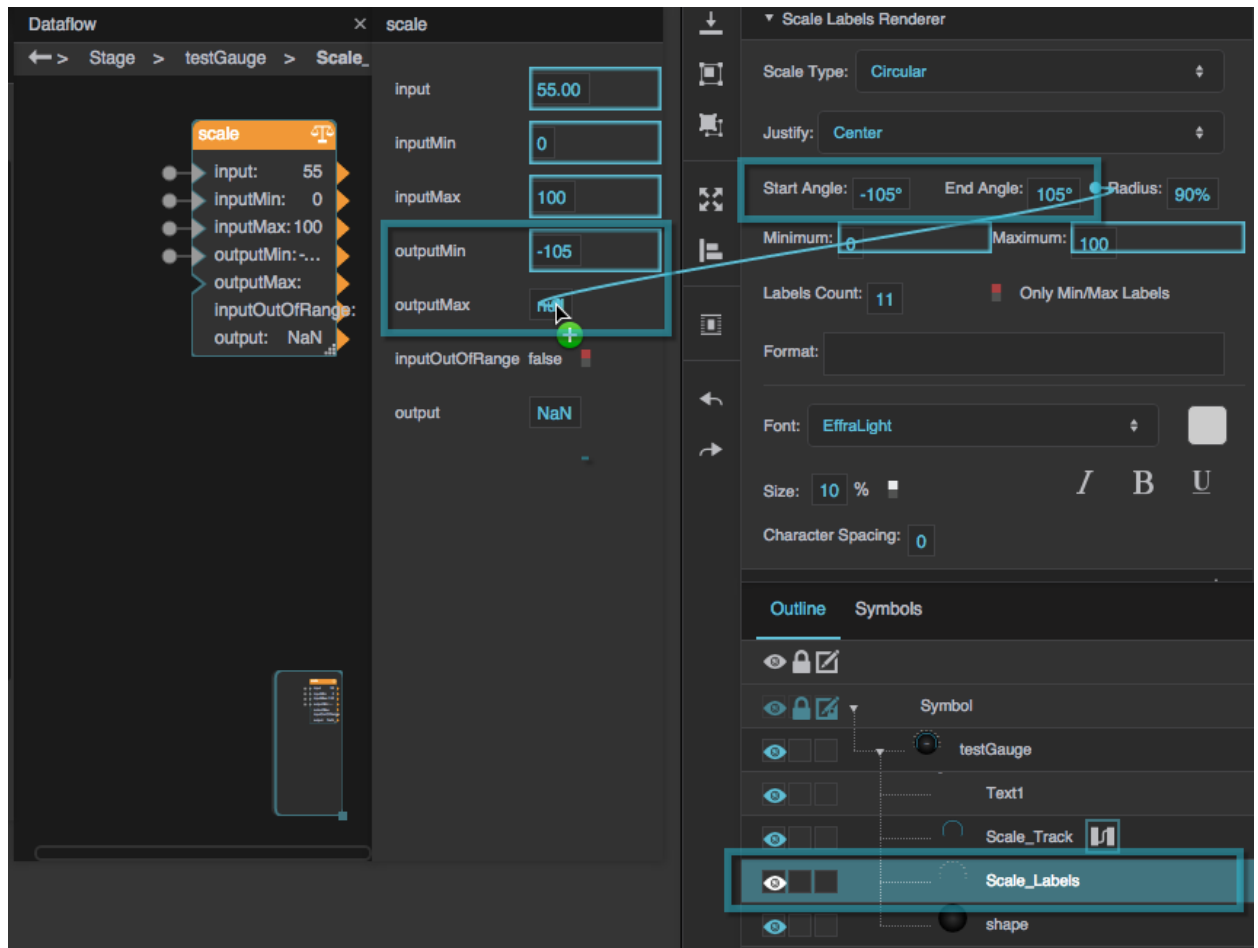
3. Bind the **value** symbol parameter to the Scale block's **input** property.



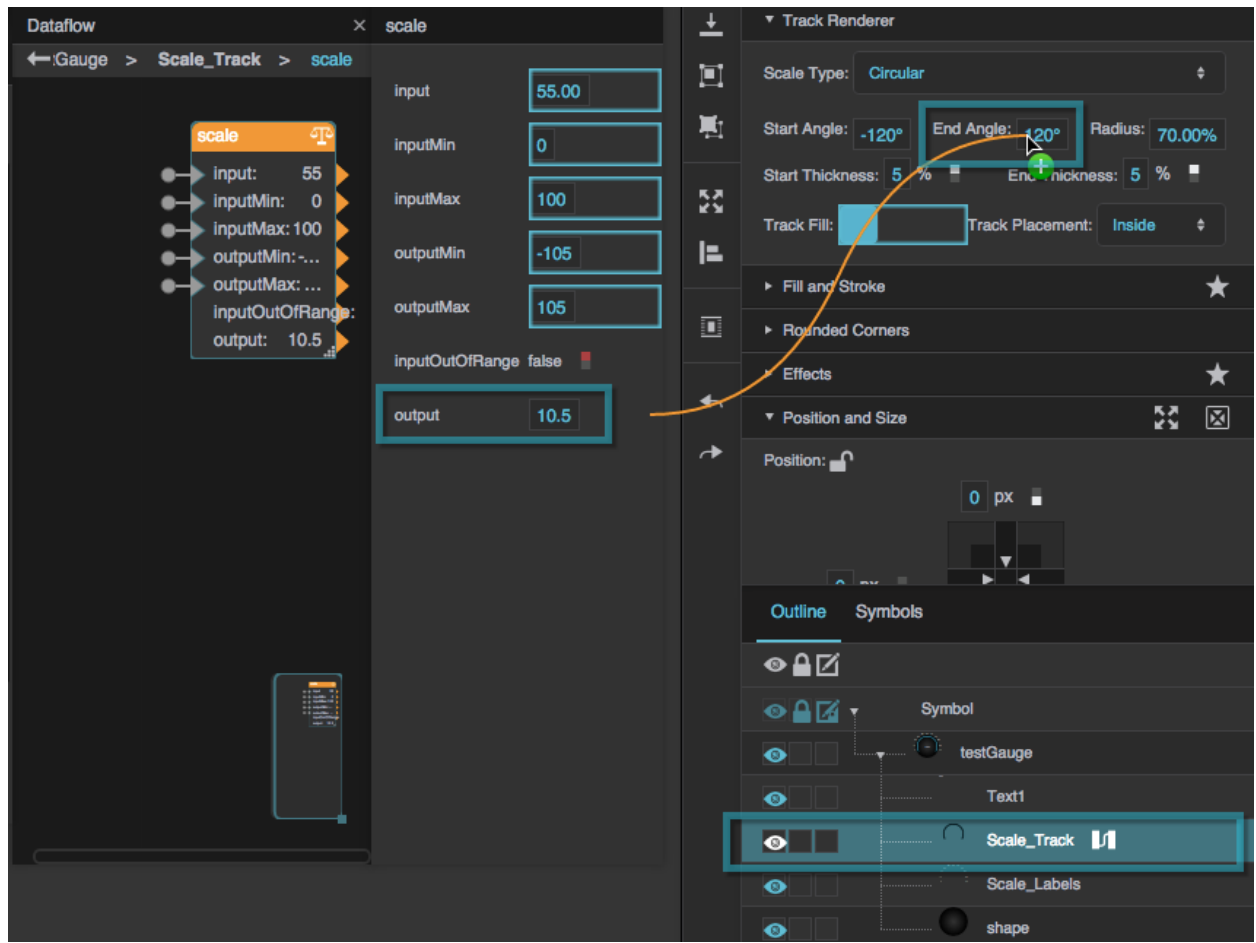
4. Bind the **minimum** and **maximum** symbol parameters to the Scale block's **inputMin** and **inputMax** properties.



5. Bind the scale label component's **Start Angle** and **End Angle** properties to the Scale block's **outputMin** and **outputMax** properties.

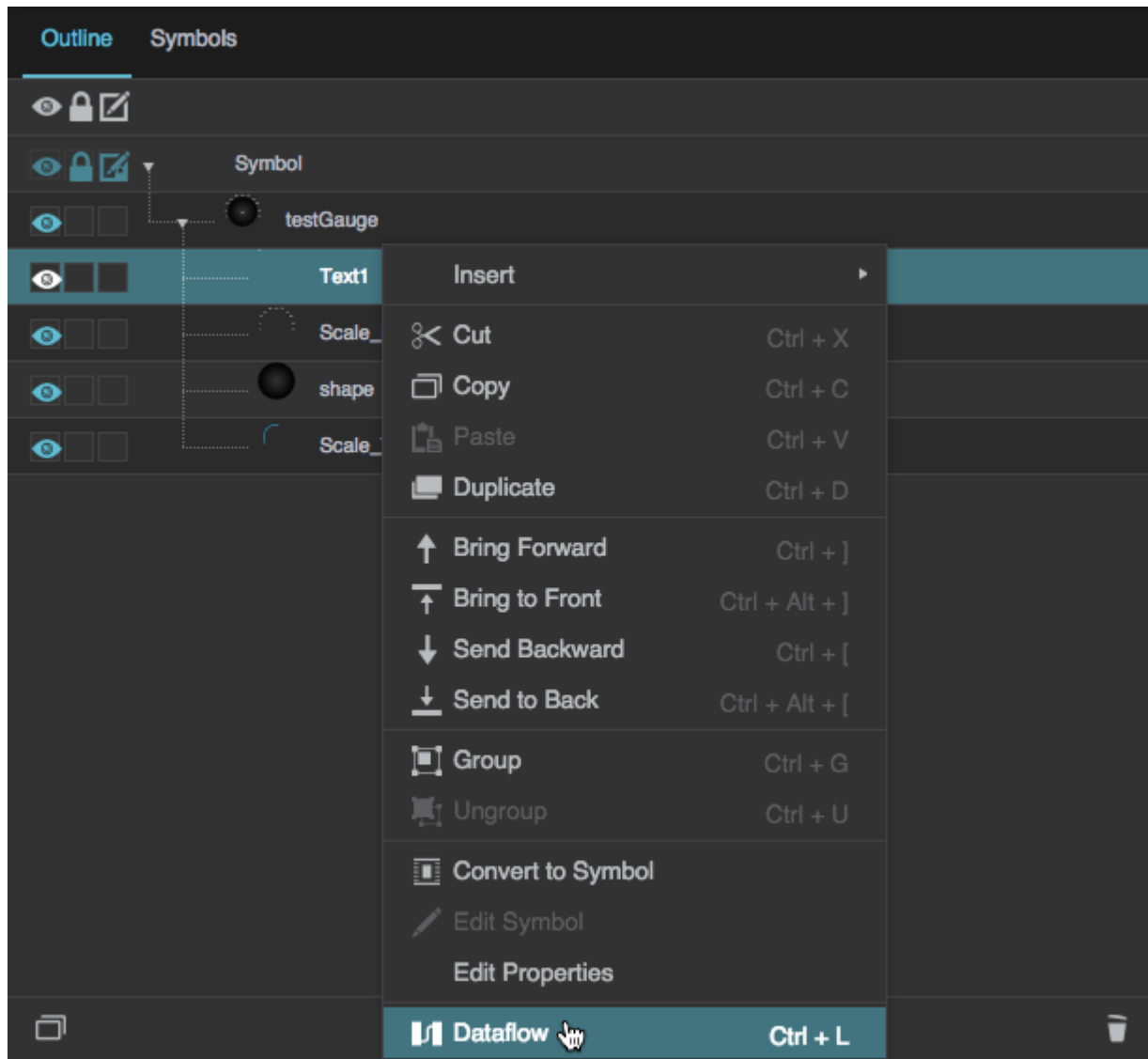


6. Bind the block's **output** property to the scale track's **End Angle** property.

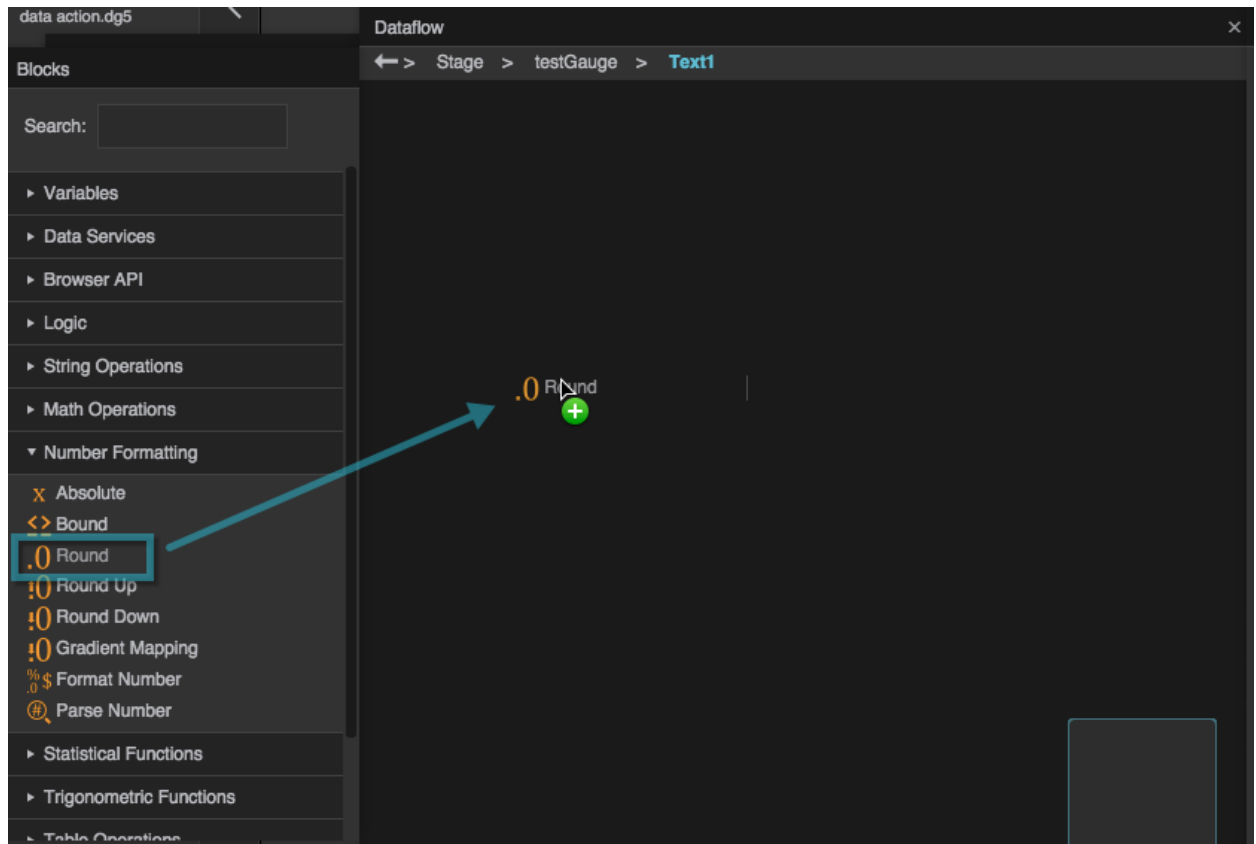


3. Map the data value to the text component:

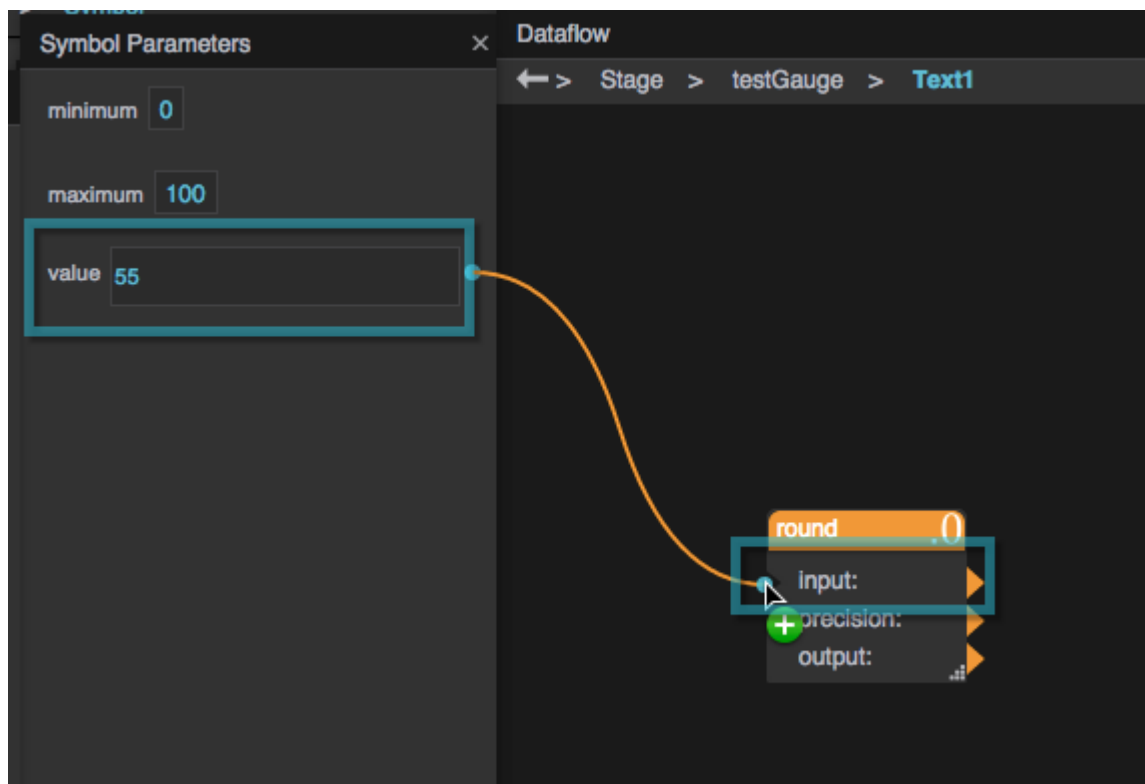
1. Right-click the text box, and select  **Dataflow**.



2. In the Dataflow blocks palette, under **Number Formatting**, find a Round block, and drag the Round block to the dataflow view.

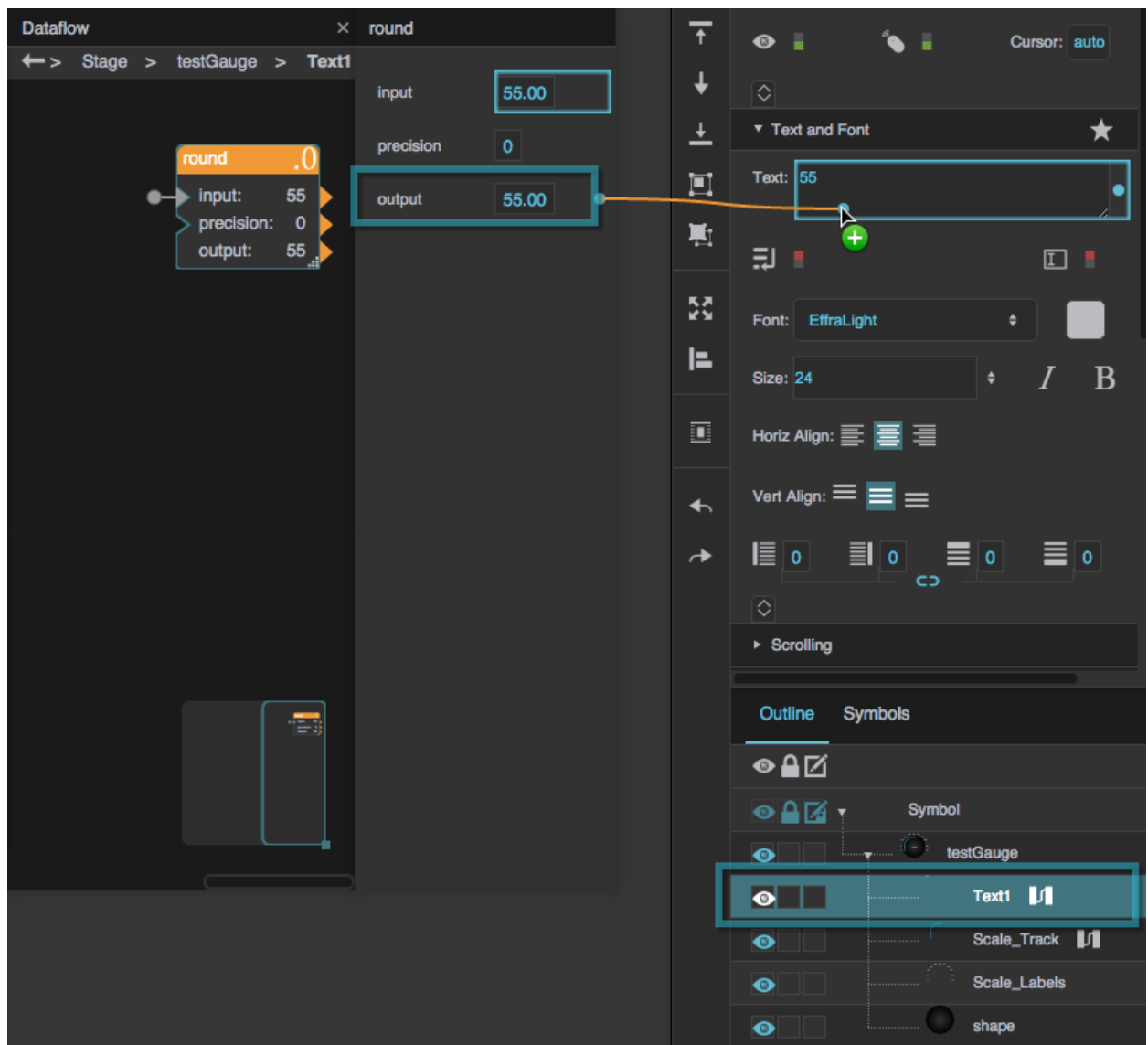


3. Bind the symbol's **value** parameter to the Round block's **input** property.



4. For the Round block's **precision** property, enter 0 to ensure a round number in the text readout.

5. Bind the Round block's **output** property to the text component's **Text** property.

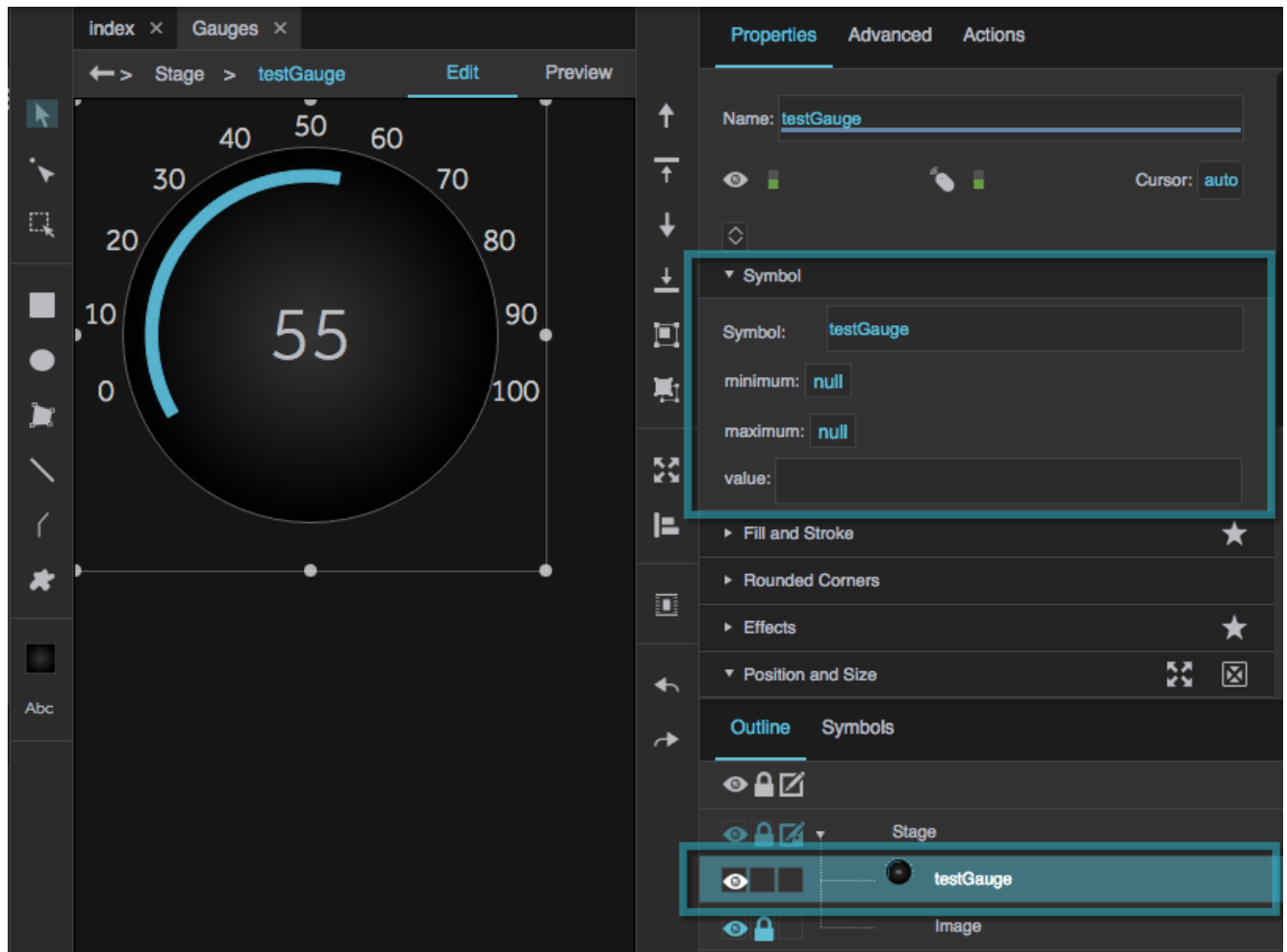


4. Double-click the Document window to exit symbol editing mode.

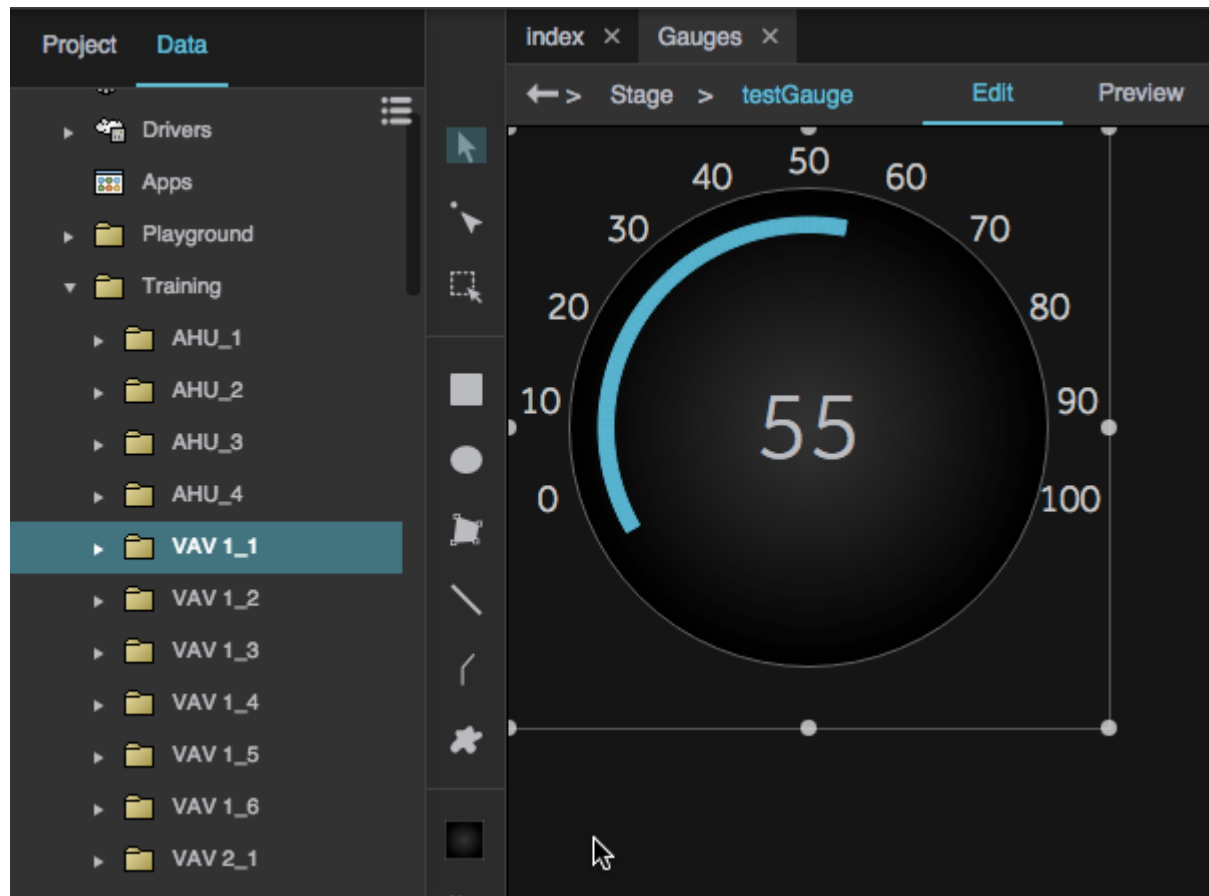
Tie Data to the Gauge

To tie data to this gauge:

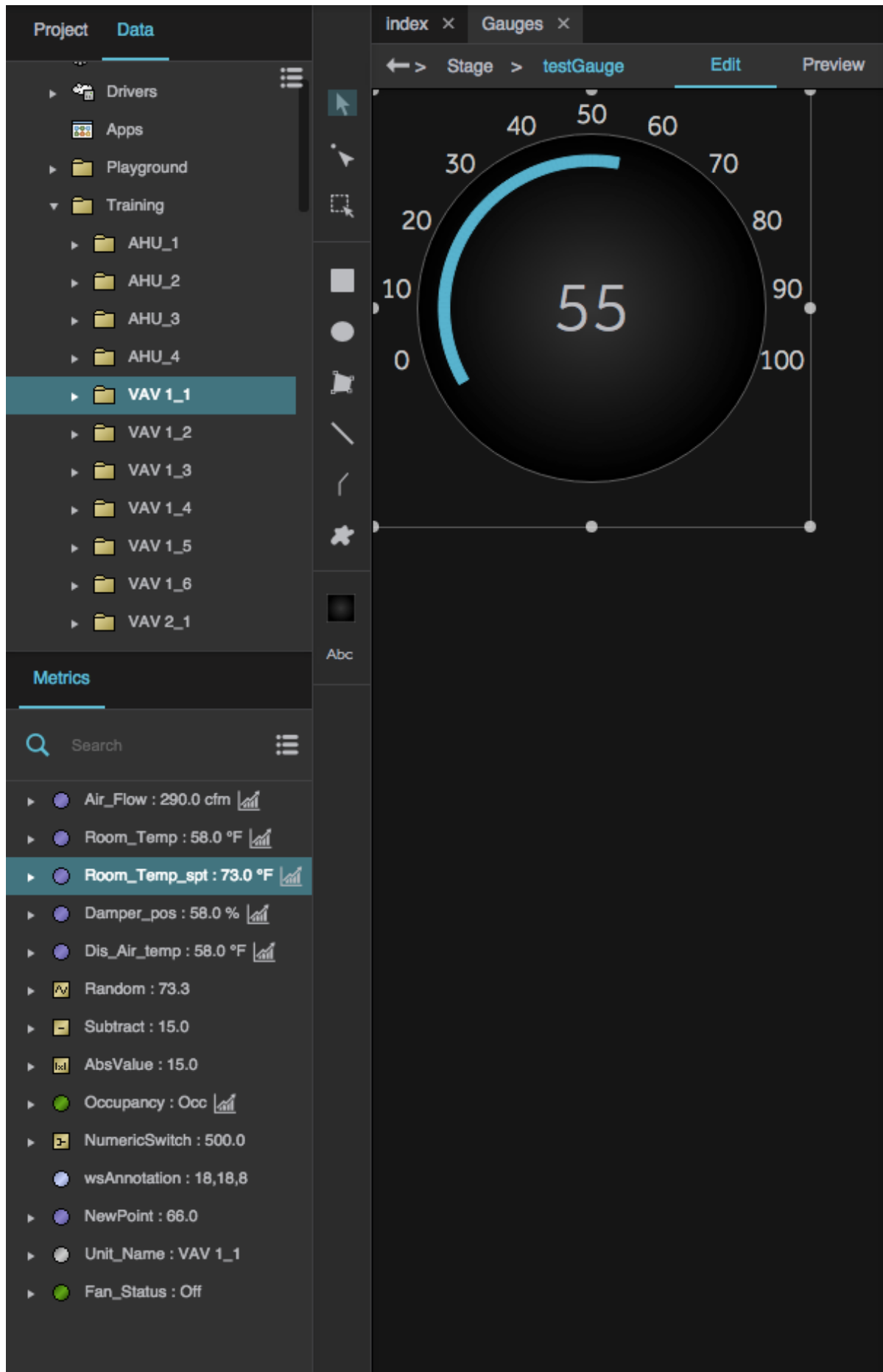
1. Select the symbol instance in the [Outline](#).
2. In the [Property Inspector](#), open the **Symbol** properties.



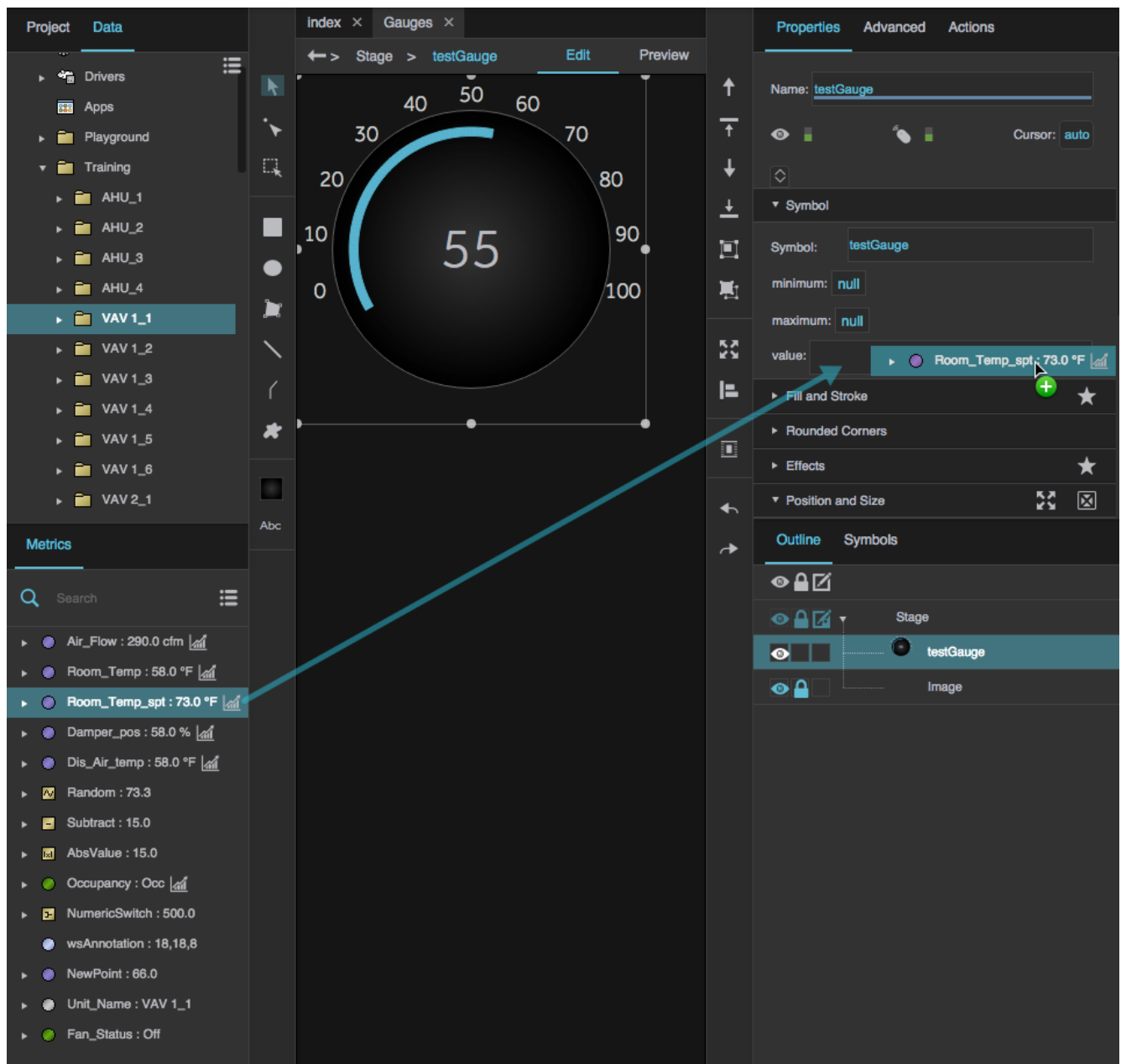
3. In the [Data Panel](#), navigate to the data source.



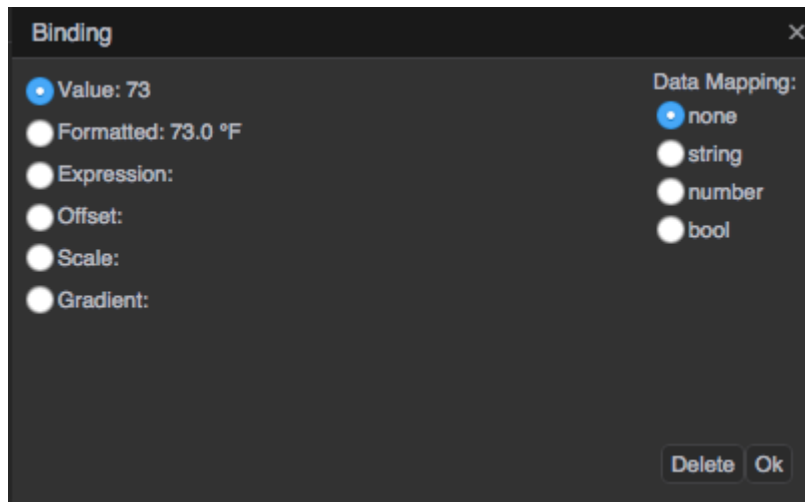
4. In the [Metrics panel](#), find the data metric.



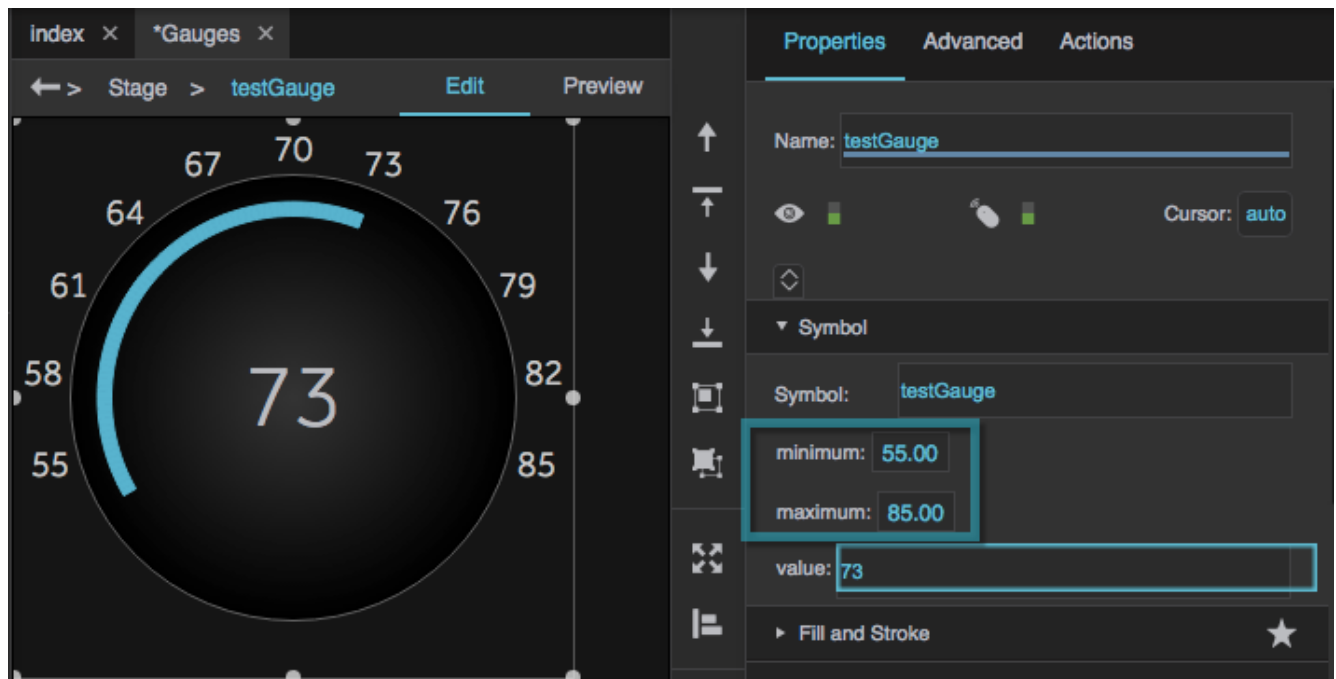
5. Drag the data metric from the metrics panel to the **value** property.



6. In the [Binding dialog](#), specify **Value**, and click **OK**.



7. If you want, in the Property Inspector, change the **minimum** and **maximum** property values to your preferred range.



Save a Gauge as a Widget

If you want to save a gauge as a widget so that you can use it in other projects, follow the steps in [Create Your Own Widget Library](#).

Gauge Scale Properties

These properties affect gauge scales. A gauge scale fits into one of three categories, based on whether it has ticks, labels, or a track. Each category has its own properties.

For a guide to using gauges, see [Designing Gauges](#).



Gauges and gauge scales can also be affected using [Common Properties](#).

The image displays three screenshots of the DGSuite software interface, specifically the 'Properties' panel for different gauge scale components. Each screenshot shows a 'Properties' tab with various settings.

- Scale Ticks Renderer properties:** The first screenshot shows the 'Scale Ticks Renderer' properties. It includes settings for 'Scale Type' (Circular), 'Ticks Placement' (Inside), 'Start Angle' (-120°), 'End Angle' (120°), 'Radius' (70.00%), 'Major Ticks' (Count: 11, Length: 6%), 'Color' (Gray), 'Stroke' (1), 'Minor Ticks' (Count: 2, Length: 4%), and 'Color' (Gray). The 'Outline' and 'Symbols' tabs are also visible.
- Scale Labels Renderer properties:** The second screenshot shows the 'Scale Labels Renderer' properties. It includes settings for 'Scale Type' (Circular), 'Justify' (Center), 'Start Angle' (-120°), 'End Angle' (120°), 'Radius' (80.00%), 'Minimum' (0), 'Maximum' (100), 'Labels Count' (11), 'Only Min/Max Labels' (checked), 'Format' (empty), 'Font' (Arial), 'Size' (10%), 'Character Spacing' (0), and 'Font' (Arial). The 'Outline' and 'Symbols' tabs are also visible.
- Scale Track Renderer properties:** The third screenshot shows the 'Scale Track Renderer' properties. It includes settings for 'Scale Type' (Linear), 'Left Padding' (0), 'Right Padding' (0), 'Start Thickness' (2 px), 'End Thickness' (2 px), 'Track Fill' (Blue), and 'Track Placement' (Inside). The 'Outline' and 'Symbols' tabs are also visible.

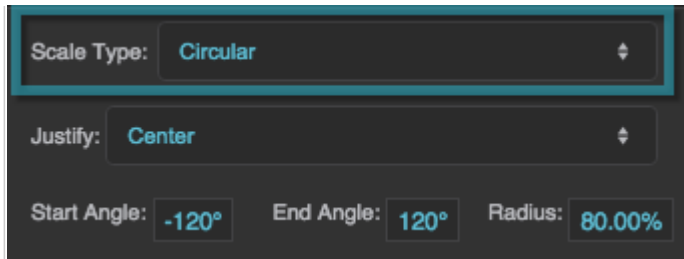
2019/07/17 19:17

Shared Gauge Scale Properties

These properties affect the shape of any type of gauge scale.

Scale Type

Specifies whether the shape of the scale is defined by a circle or a straight line.



Scale Type: **Circular**

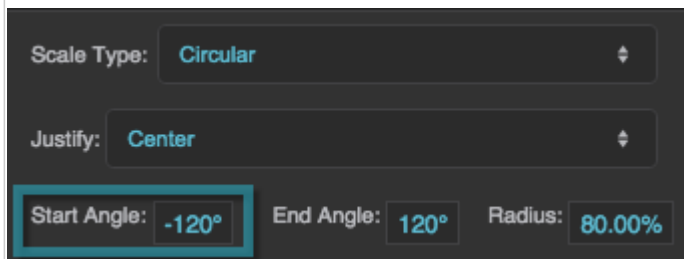
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

The Scale Type property

Start Angle

Defines the start angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180 .



Scale Type: **Circular**

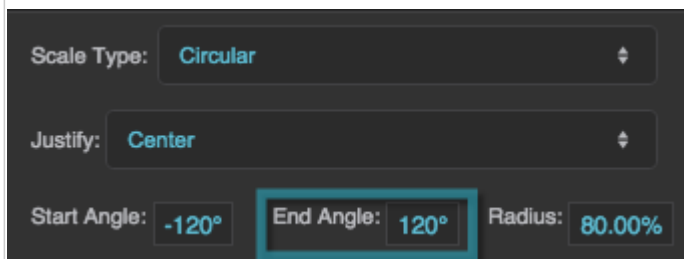
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

The Start Angle property

End Angle

Defines the end angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180 .



Scale Type: **Circular**

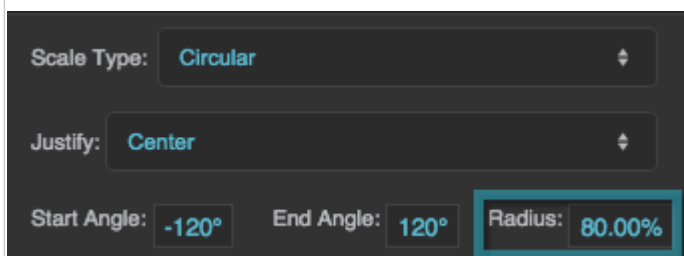
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

The End Angle property

Radius

Defines the radius of the circle that defines the scale, as a percentage of either half the width or half the height of the container, whichever is larger.



Scale Type: **Circular**

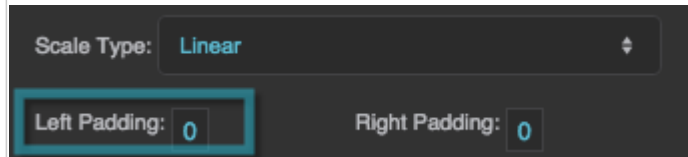
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

The Radius property

Left Padding

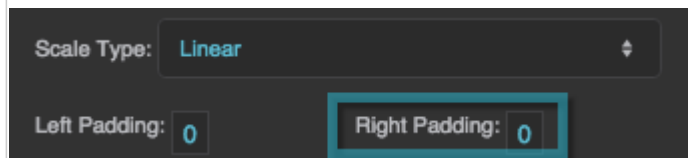
Defines the distance between the left side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders, Padding, and Content Size](#).



The Left Padding property

Right Padding

Defines the distance between the right side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders, Padding, and Content Size](#).



The Right Padding property

2019/07/17 19:17

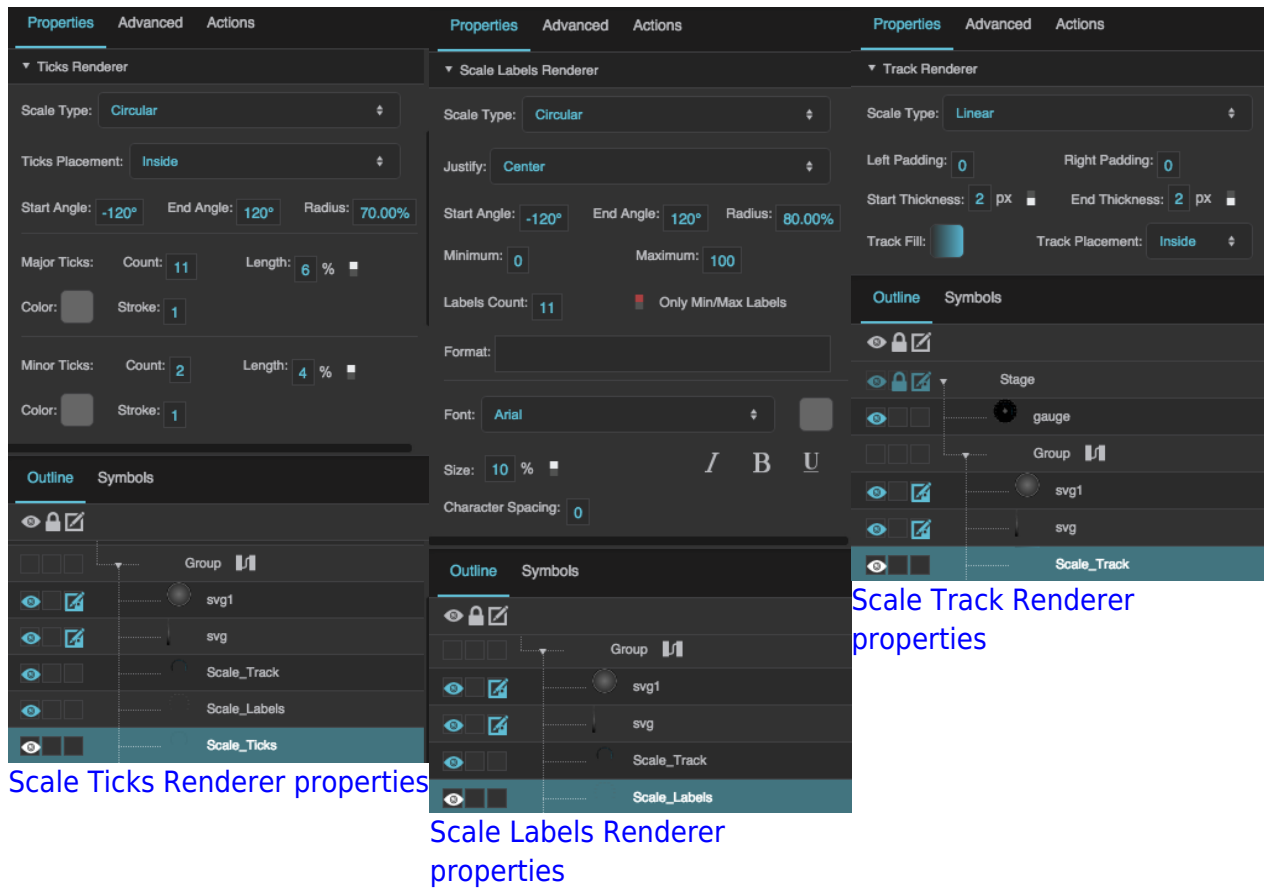
Gauge Scale Properties

These properties affect gauge scales. A gauge scale fits into one of three categories, based on whether it has ticks, labels, or a track. Each category has its own properties.

For a guide to using gauges, see [Designing Gauges](#).



Gauges and gauge scales can also be affected using [Common Properties](#).



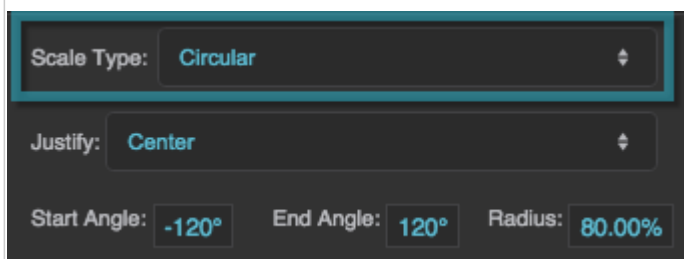
Click to display/hide all elements

Shared Gauge Scale Properties

These properties affect the shape of any type of gauge scale.

Scale Type

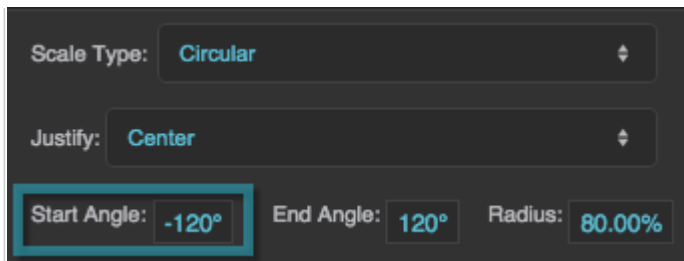
Specifies whether the shape of the scale is defined by a circle or a straight line.



The *Scale Type* property

Start Angle

Defines the start angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180.



Scale Type: **Circular**

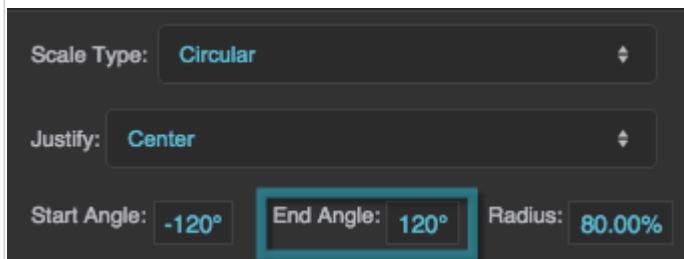
Justify: **Center**

Start Angle: -120° End Angle: **120°** Radius: **80.00%**

The Start Angle property

End Angle

Defines the end angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180 .



Scale Type: **Circular**

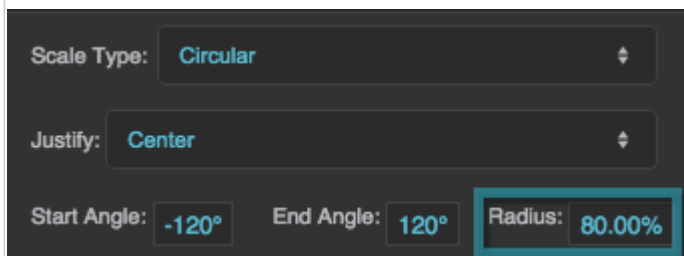
Justify: **Center**

Start Angle: **-120°** **End Angle: 120°** Radius: **80.00%**

The End Angle property

Radius

Defines the radius of the circle that defines the scale, as a percentage of either half the width or half the height of the container, whichever is larger.



Scale Type: **Circular**

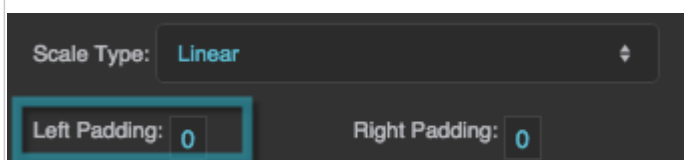
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** **Radius: 80.00%**

The Radius property

Left Padding

Defines the distance between the left side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders, Padding, and Content Size](#).



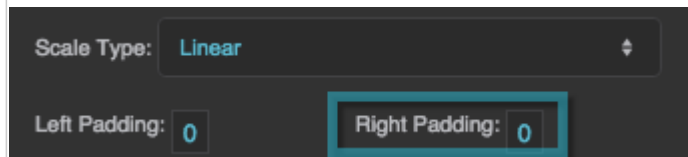
Scale Type: **Linear**

Left Padding: 0 Right Padding: **0**

The Left Padding property

Right Padding

Defines the distance between the right side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders](#), [Padding](#), and [Content Size](#).



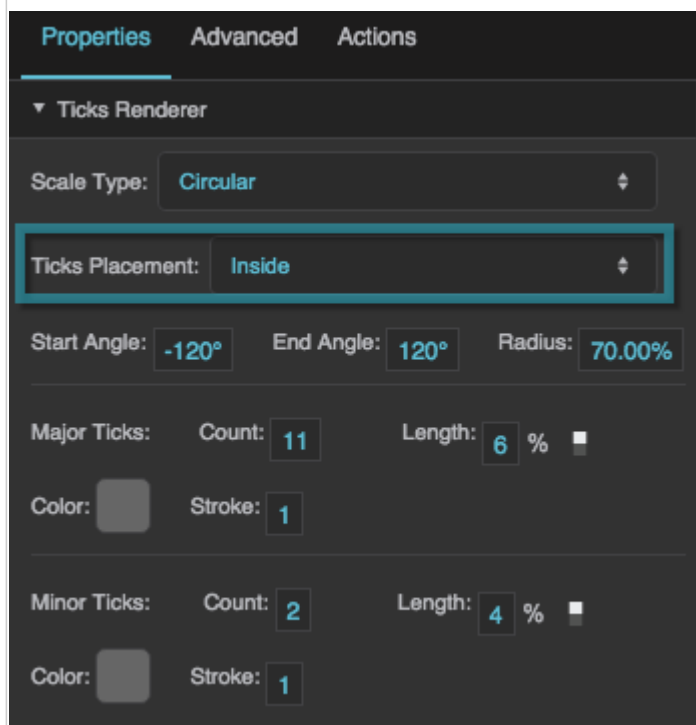
The Right Padding property

Scale Ticks Renderer Properties

These properties affect a scale with ticks.

Ticks Placement

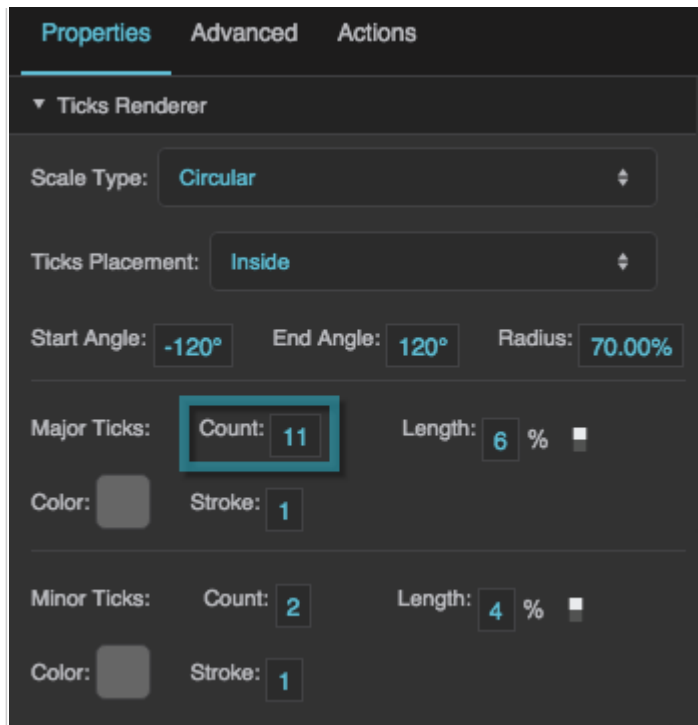
Specifies whether the ticks are positioned on the inside, outside, or center of the circle or line that defines the scale.



The Ticks Placement property

Major Tick Count

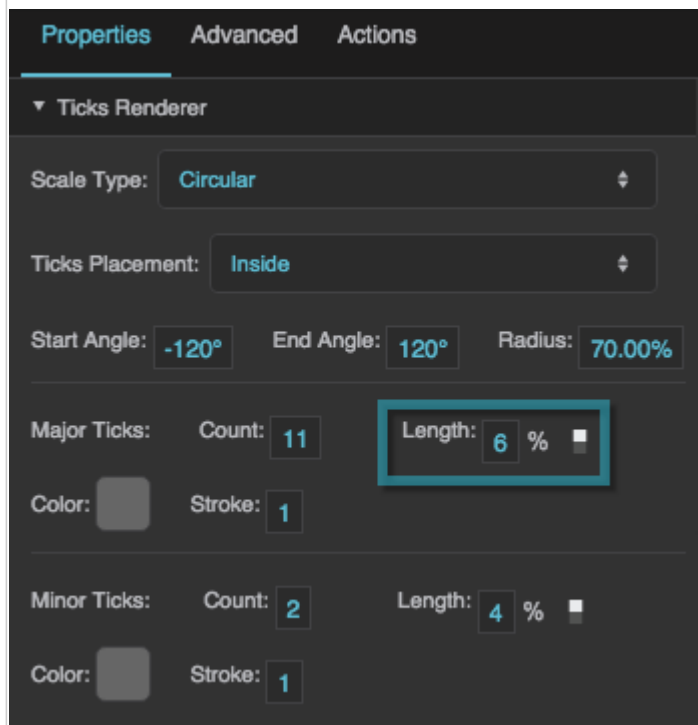
Defines the total number of major ticks along this scale.



The Major Tick Count property

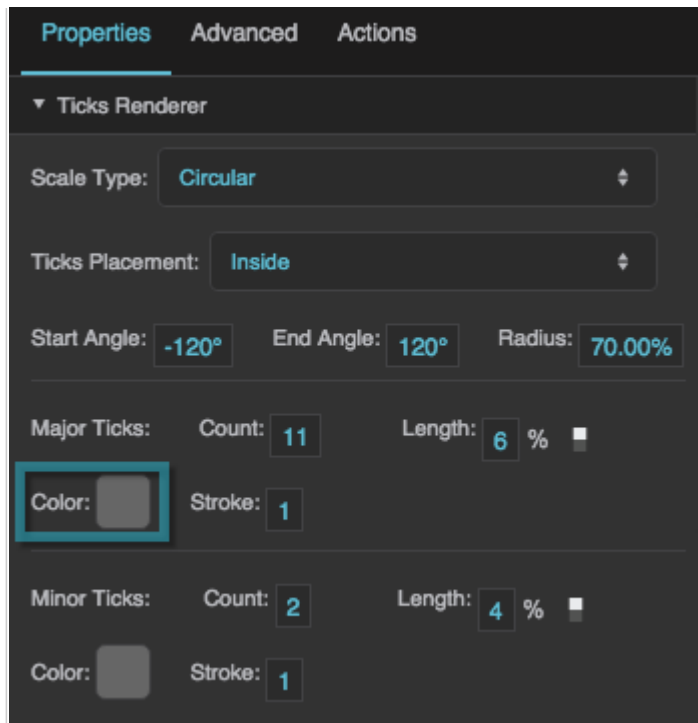
Major Ticks Length

Defines the length of each major tick, as a pixel value or a percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.



The Major Tick Length property

Defines the stroke color of the major ticks.

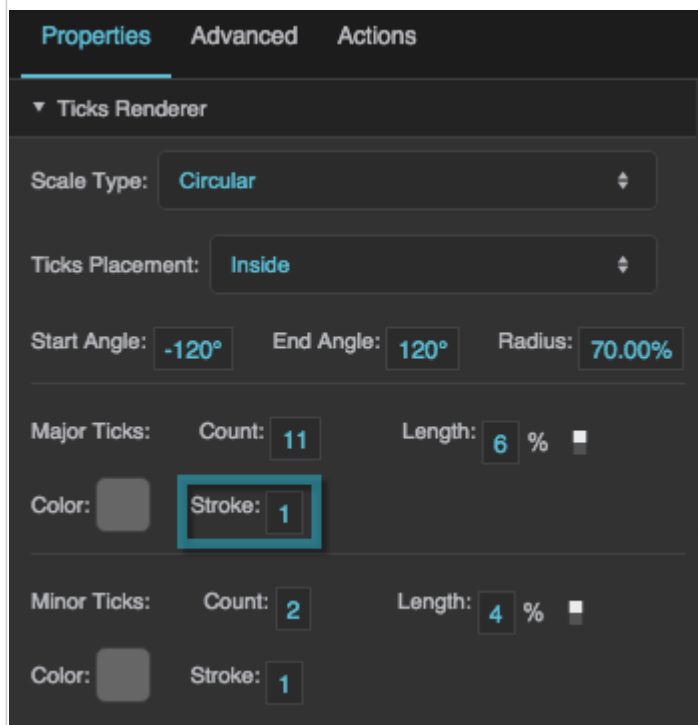


The screenshot shows the 'Properties' tab of a gauge design tool. Under the 'Ticks Renderer' section, the 'Scale Type' is set to 'Circular' and 'Ticks Placement' is set to 'Inside'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 70.00%. In the 'Major Ticks' section, the 'Count' is 11 and 'Length' is 6%. The 'Color' property is highlighted with a red box, showing a grey color swatch. The 'Stroke' property is set to 1. The 'Minor Ticks' section shows a 'Count' of 2 and 'Length' of 4%.

The Major Tick Color property

Major Tick Stroke Weight

Defines the stroke weight of each major tick.

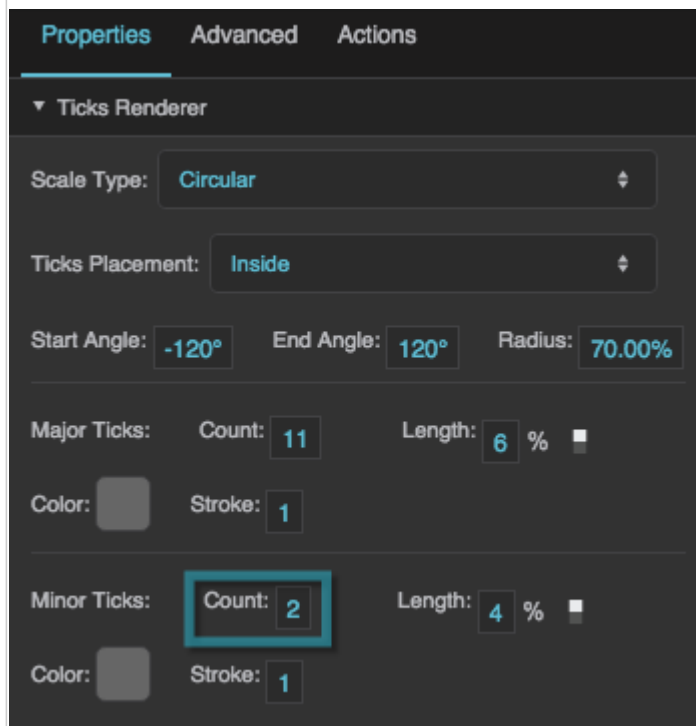


This screenshot is similar to the previous one, showing the 'Properties' tab and 'Ticks Renderer' section. In this instance, the 'Color' property is not highlighted, but the 'Stroke' property in the 'Major Ticks' section is highlighted with a red box, showing a value of 1. All other settings remain the same.

The Major Tick Weight property

Minor Tick Count

Defines the number of minor ticks between each consecutive pair of major ticks.

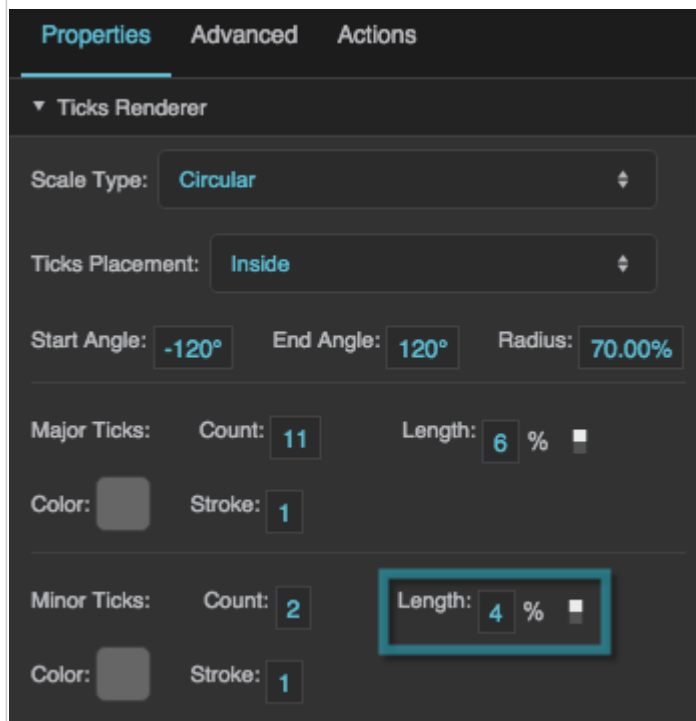


The screenshot shows the 'Properties' panel for a gauge. The 'Ticks Renderer' section is expanded. Under 'Major Ticks', the 'Count' is 11 and 'Length' is 6%. Under 'Minor Ticks', the 'Count' is 2, which is highlighted with a red box. The 'Length' for minor ticks is 4%.

The Minor Tick Count property

Minor Tick Length

Defines the length of each minor tick, as a pixel value or a percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.



The screenshot shows the 'Properties' panel for a gauge. The 'Ticks Renderer' section is expanded. Under 'Major Ticks', the 'Count' is 11 and 'Length' is 6%. Under 'Minor Ticks', the 'Count' is 2 and 'Length' is 4%, which is highlighted with a red box. The 'Length' for minor ticks is 4%.

The Minor Tick Length property

Minor Tick Stroke Color

Defines the stroke color of the minor ticks.

The screenshot shows the 'Properties' tab of a gauge design tool. Under the 'Ticks Renderer' section, the 'Scale Type' is set to 'Circular' and 'Ticks Placement' is set to 'Inside'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 70.00%. The 'Major Ticks' section shows a count of 11, length of 6%, and a color swatch. The 'Minor Ticks' section shows a count of 2, length of 4%, and a color swatch. The 'Color' property for the minor ticks is highlighted with a red box.

The Minor Tick Color property

Minor Tick Stroke Weight

Defines the stroke weight of each minor tick.

The screenshot shows the 'Properties' tab of a gauge design tool. Under the 'Ticks Renderer' section, the 'Scale Type' is set to 'Circular' and 'Ticks Placement' is set to 'Inside'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 70.00%. The 'Major Ticks' section shows a count of 11, length of 6%, and a color swatch. The 'Minor Ticks' section shows a count of 2, length of 4%, and a color swatch. The 'Stroke' property for the minor ticks is highlighted with a red box.

The Minor Tick Weight property

Scale Labels Renderer Properties

These properties affect a scale with number labels.

Justify

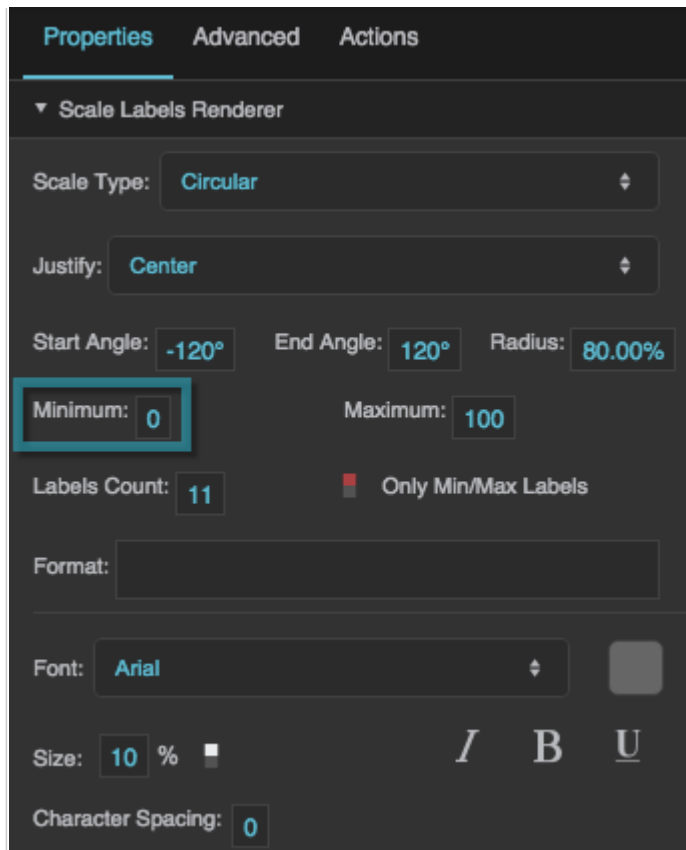
Specifies whether the labels appear on the inside, outside, or center of the circle or line that defines the scale.

The screenshot shows a dark-themed properties panel for a 'Scale Labels Renderer'. The 'Properties' tab is selected. The 'Justify' property is highlighted with a red rectangular border and is set to 'Center'. Other properties visible include 'Scale Type' set to 'Circular', 'Start Angle' at '-120°', 'End Angle' at '120°', 'Radius' at '80.00%', 'Minimum' at '0', 'Maximum' at '100', 'Labels Count' at '11', a checkbox for 'Only Min/Max Labels', a 'Format' text field, 'Font' set to 'Arial', 'Size' at '10%', and 'Character Spacing' at '0'. There are also icons for font style (italic, bold, underline) and a color picker.

The Justify property

Minimum

Defines the lowest number on the scale.



The screenshot shows the 'Properties' panel of a software interface, specifically the 'Scale Labels Renderer' section. The panel has three tabs: 'Properties', 'Advanced', and 'Actions'. The 'Properties' tab is selected. The 'Scale Labels Renderer' section contains several settings:

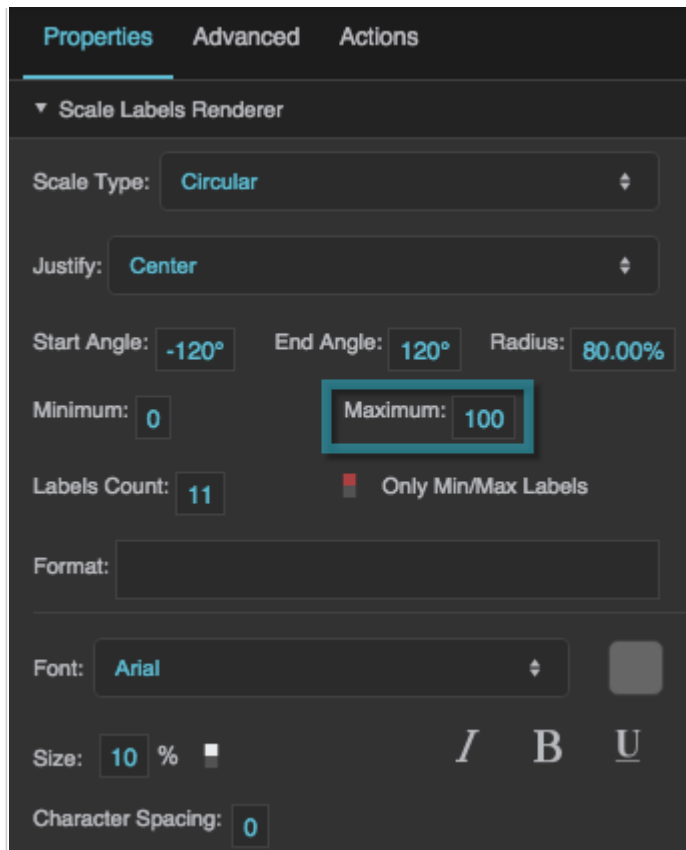
- Scale Type:** A dropdown menu set to 'Circular'.
- Justify:** A dropdown menu set to 'Center'.
- Start Angle:** A text input field set to '-120°'.
- End Angle:** A text input field set to '120°'.
- Radius:** A text input field set to '80.00%'.
- Minimum:** A text input field set to '0', which is highlighted with a red rectangular box.
- Maximum:** A text input field set to '100'.
- Labels Count:** A text input field set to '11'.
- Only Min/Max Labels:** A checkbox that is currently unchecked.
- Format:** A text input field that is empty.
- Font:** A dropdown menu set to 'Arial'.
- Size:** A text input field set to '10' followed by a percentage symbol '%', and a small square icon.
- Character Spacing:** A text input field set to '0'.

Below the 'Properties' panel, the text 'The Minimum property' is written in a serif font.

The Minimum property

Maximum

Defines the highest number on the scale.



Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 Only Min/Max Labels

Format:

Font: Arial

Size: 10 %

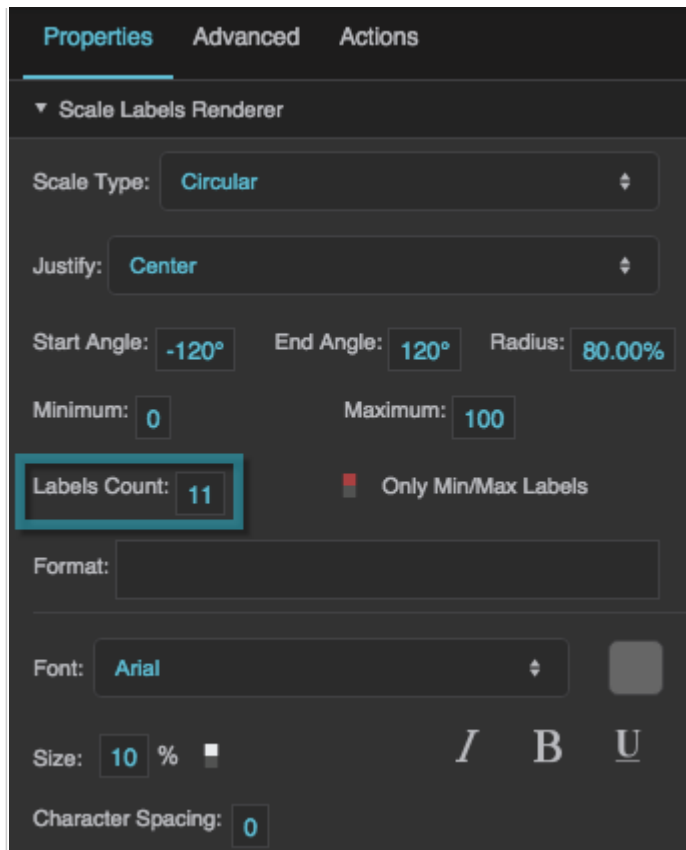
Character Spacing: 0

I **B** U

The Maximum property

Labels Count

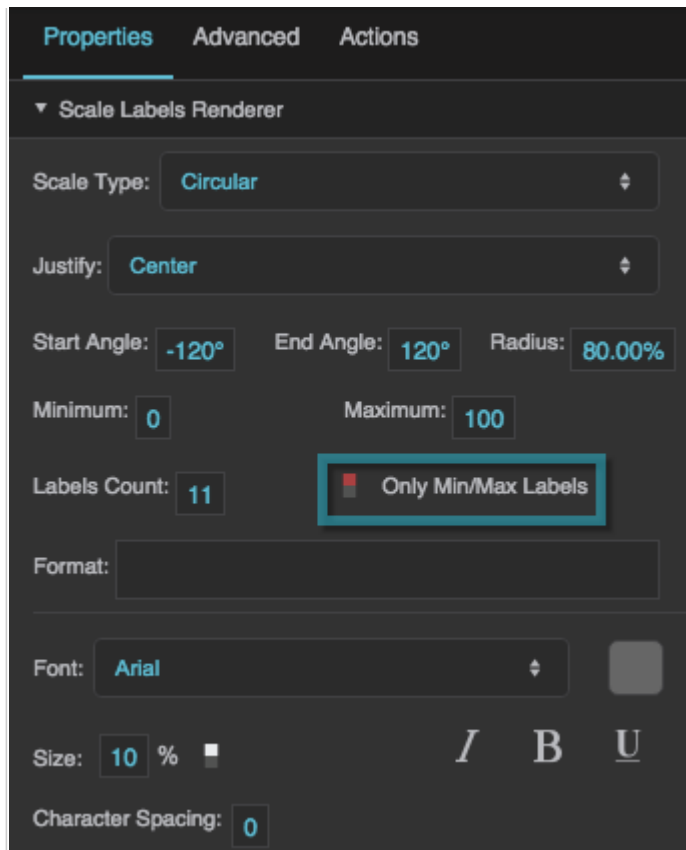
Defines the total number of labels along this scale. Must be an integer greater than or equal to 2. The **Only Min/Max Labels** property overrides this property.



The Labels Count property

Only Min/Max Labels

Specifies whether the labels for the minimum and maximum of the scale are the only two labels that appear. This property overrides the **Labels Count** property.



The Only Min/Max Labels property

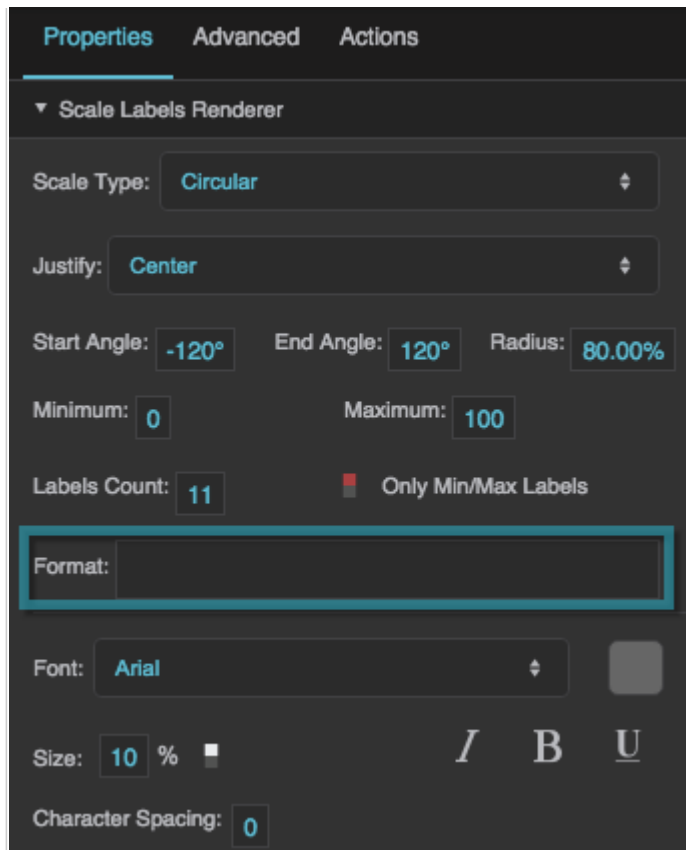
Format

Defines the number format for scale labels, as a format string.

For example:

- **,##0.00**: Labels have a thousands separator and two decimal digits.
- **000.00**: Labels have three mandatory digits before the decimal, and two mandatory digits after the decimal.

For more information about supported formatting options, see [Scripting and Syntax](#).

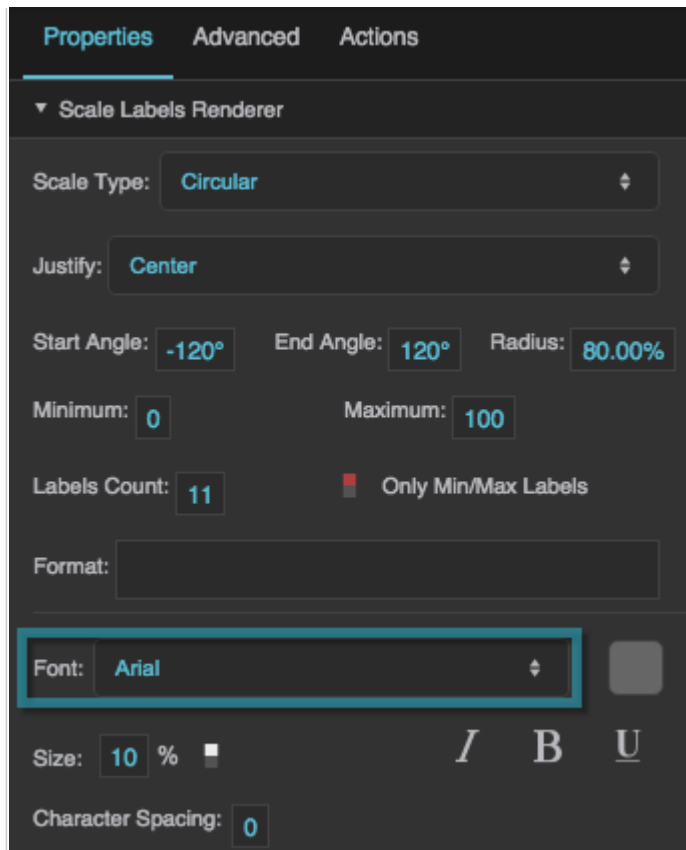


The screenshot shows the 'Scale Labels Renderer' properties panel. It includes tabs for 'Properties', 'Advanced', and 'Actions'. The 'Scale Type' is set to 'Circular'. The 'Justify' is set to 'Center'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 80.00%. The 'Minimum' is 0 and 'Maximum' is 100. The 'Labels Count' is 11, and the 'Only Min/Max Labels' checkbox is checked. The 'Format' property is highlighted with a red rectangle. Below it, the 'Font' is set to 'Arial', and the 'Size' is 10%. There are also buttons for 'I', 'B', and 'U' (italic, bold, and underline) and a 'Character Spacing' field set to 0.

The Format property

Labels Font

Defines the font used for the labels along this scale. To add a font to this project and use it for this property, see [Text Component Properties](#).



The screenshot shows the 'Scale Labels Renderer' properties panel. It includes tabs for 'Properties', 'Advanced', and 'Actions'. The 'Properties' tab is active. The panel contains the following settings:

- Scale Type:** Circular
- Justify:** Center
- Start Angle:** -120°
- End Angle:** 120°
- Radius:** 80.00%
- Minimum:** 0
- Maximum:** 100
- Labels Count:** 11
- Only Min/Max Labels:** (checkbox, unchecked)
- Format:** (empty text field)
- Font:** Arial (highlighted with a red rectangle)
- Size:** 10 %
- Character Spacing:** 0
- Styling:** Italic (I), Bold (B), Underline (U) buttons.

The Font property

Labels Size

Defines the height of the scale numbers, as a pixel value or percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.

The screenshot shows the 'Properties' tab of a software interface for configuring a gauge. The 'Scale Labels Renderer' section is expanded, showing various settings. The 'Scale Type' is set to 'Circular', 'Justify' is 'Center', 'Start Angle' is '-120°', 'End Angle' is '120°', and 'Radius' is '80.00%'. The 'Minimum' value is '0' and the 'Maximum' value is '100'. The 'Labels Count' is '11', and the 'Only Min/Max Labels' checkbox is checked. The 'Format' field is empty. The 'Font' is set to 'Arial'. The 'Size' is '10 %' and is highlighted with a red box. The 'Character Spacing' is '0'. There are also buttons for 'I' (Italic), 'B' (Bold), and 'U' (Underline).

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☒ Only Min/Max Labels

Format:

Font: Arial

Size: 10 % ☐ *I* **B** U

Character Spacing: 0

The Labels Size property

Italic

Defines whether the labels along this scale are italic.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☐ Only Min/Max Labels

Format:

Font: Arial

Size: 10 %

Character Spacing: 0

I B U

The Italic property

Bold

Defines whether the labels along this scale are bold.

The screenshot shows the 'Properties' panel for a gauge. The 'Scale Labels Renderer' section is expanded. The 'Scale Type' is set to 'Circular'. The 'Justify' property is set to 'Center'. The 'Start Angle' is '-120°', 'End Angle' is '120°', and 'Radius' is '80.00%'. The 'Minimum' is '0' and 'Maximum' is '100'. The 'Labels Count' is '11'. The 'Only Min/Max Labels' checkbox is checked. The 'Format' field is empty. The 'Font' is 'Arial'. The 'Size' is '10 %'. The 'Character Spacing' is '0'. The 'Bold' property is highlighted with a red box.

The Bold property

Underline

Defines whether the labels along this scale are underlined.

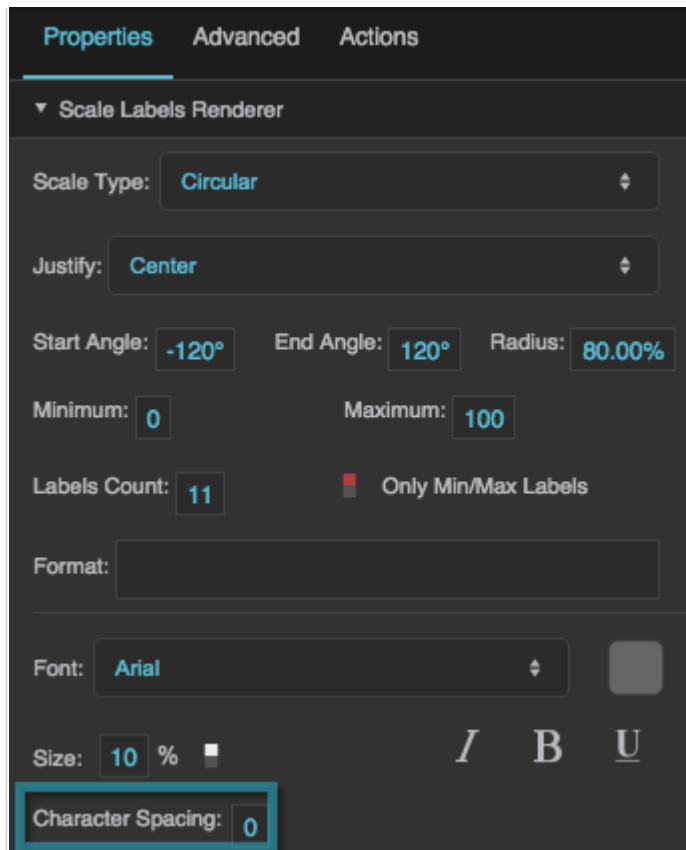
The image shows a software interface for configuring a gauge's scale labels. It features a dark-themed panel with several settings:

- Properties** (selected), **Advanced**, **Actions**
- Scale Labels Renderer** (expanded section)
- Scale Type:** Circular
- Justify:** Center
- Start Angle:** -120°, **End Angle:** 120°, **Radius:** 80.00%
- Minimum:** 0, **Maximum:** 100
- Labels Count:** 11, **Only Min/Max Labels:** (unchecked)
- Format:** (empty text box)
- Font:** Arial
- Size:** 10 %
- Character Spacing:** 0
- Styling:** Italic (I), Bold (B), and Underline (U) buttons. The Underline button is highlighted with a red box.

The Underline property

Character Spacing

Specifies the horizontal spacing between characters in the scale labels, as a pixel value. A null value means the font's default spacing is used.



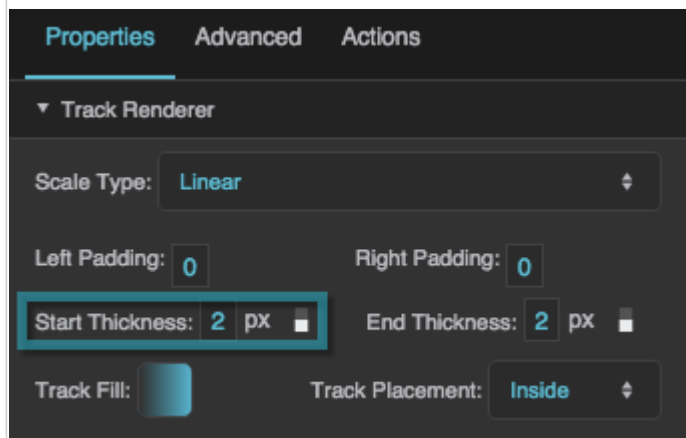
The Character Spacing property

Scale Track Renderer Properties

These properties affect a scale with a track.

Start Thickness

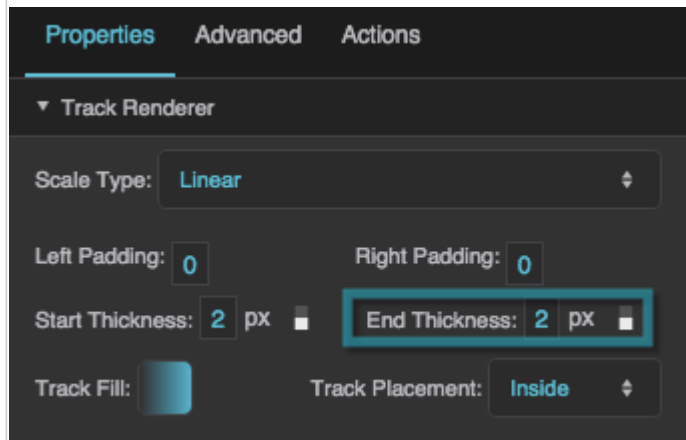
Defines the thickness of the scale track at its start, as a pixel or percentage value. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of the entire container width.



The Start Thickness property

End Thickness

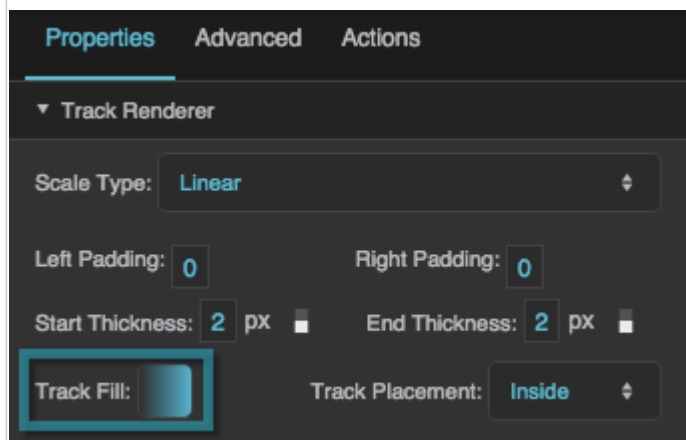
Defines the thickness of the scale track at its end, as a pixel or percentage value. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of the entire container width.



The End Thickness property

Track Fill

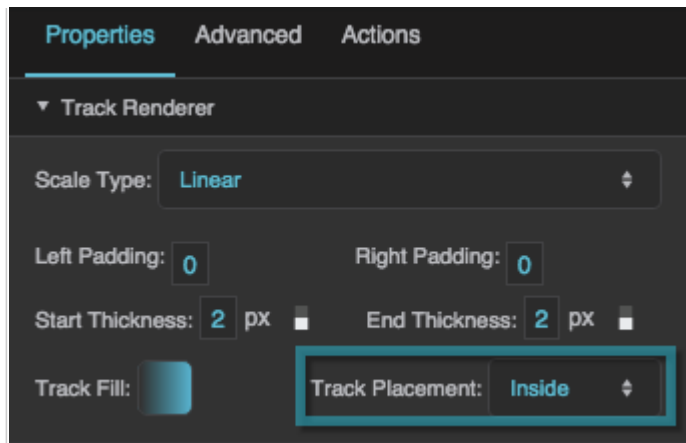
Defines the colors for the gradient fill for the scale track. To add colors, click below the track in the dialog. To delete colors, right-click on them in the dialog.



The Track Fill property

Track Placement

Specifies whether the track is positioned on the inside, outside, or center of the circle or line that defines the scale.



The Track Placement property

[Previous: Raw SVG Repeater Properties](#)

[Next: Input Component Properties](#)

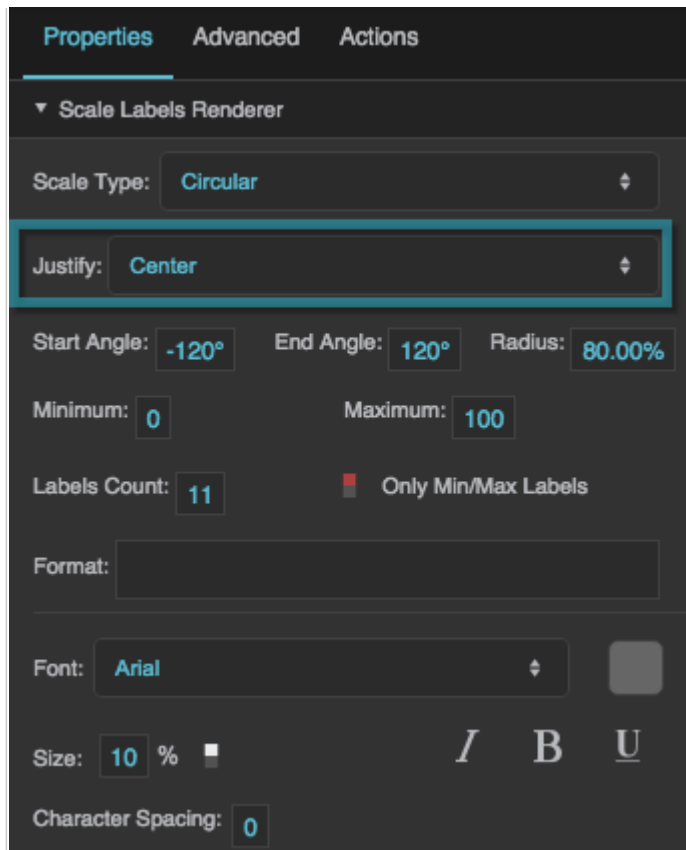
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Scale Labels Renderer Properties

These properties affect a scale with number labels.

Justify

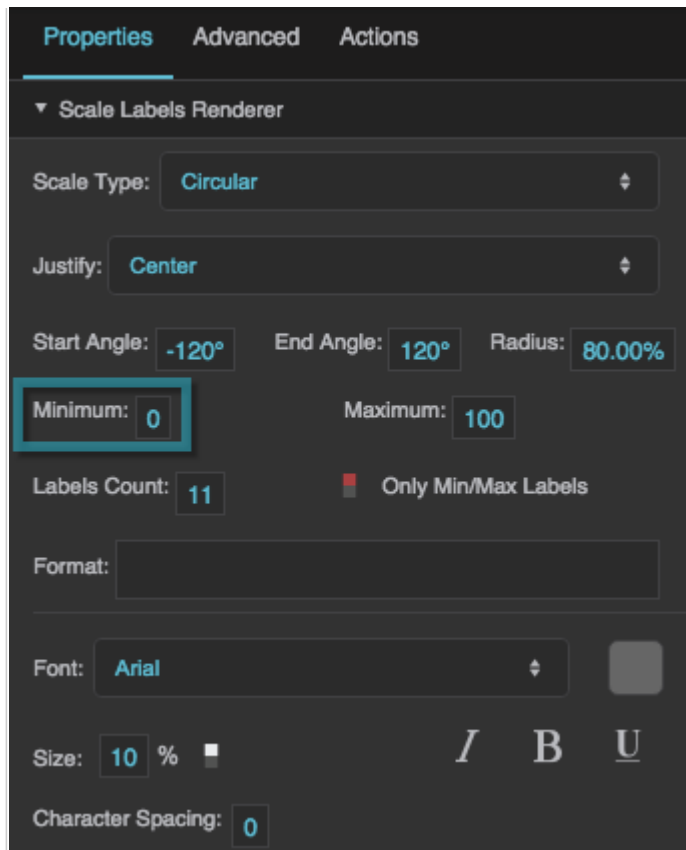
Specifies whether the labels appear on the inside, outside, or center of the circle or line that defines the scale.



The Justify property

Minimum

Defines the lowest number on the scale.



The screenshot shows the 'Properties' panel of a software application, specifically the 'Scale Labels Renderer' section. The panel has three tabs: 'Properties', 'Advanced', and 'Actions'. The 'Properties' tab is selected. The 'Scale Labels Renderer' section contains several settings:

- Scale Type:** A dropdown menu set to 'Circular'.
- Justify:** A dropdown menu set to 'Center'.
- Start Angle:** A text input field set to '-120°'.
- End Angle:** A text input field set to '120°'.
- Radius:** A text input field set to '80.00%'.
- Minimum:** A text input field set to '0', which is highlighted with a red rectangular box.
- Maximum:** A text input field set to '100'.
- Labels Count:** A text input field set to '11'.
- Only Min/Max Labels:** A checkbox that is currently unchecked.
- Format:** A text input field that is empty.
- Font:** A dropdown menu set to 'Arial'.
- Size:** A text input field set to '10' followed by a percentage symbol '%'. To the right of the size field are three icons: a slanted 'I', a bold 'B', and an underlined 'U'.
- Character Spacing:** A text input field set to '0'.

The Minimum property

Maximum

Defines the highest number on the scale.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☒ Only Min/Max Labels

Format:

Font: Arial

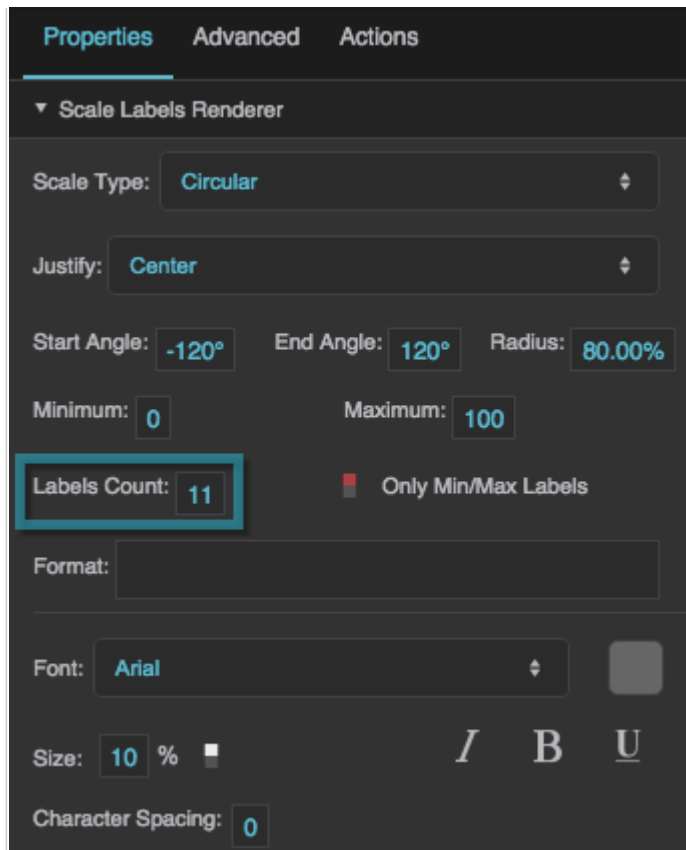
Size: 10 % *I B U*

Character Spacing: 0

The Maximum property

Labels Count

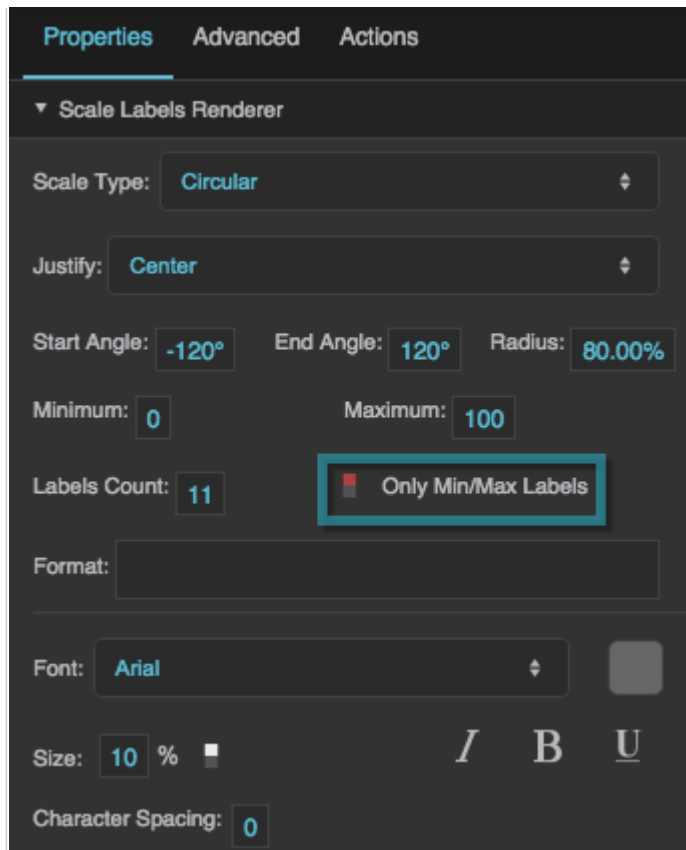
Defines the total number of labels along this scale. Must be an integer greater than or equal to 2. The **Only Min/Max Labels** property overrides this property.



The Labels Count property

Only Min/Max Labels

Specifies whether the labels for the minimum and maximum of the scale are the only two labels that appear. This property overrides the **Labels Count** property.



The Only Min/Max Labels property

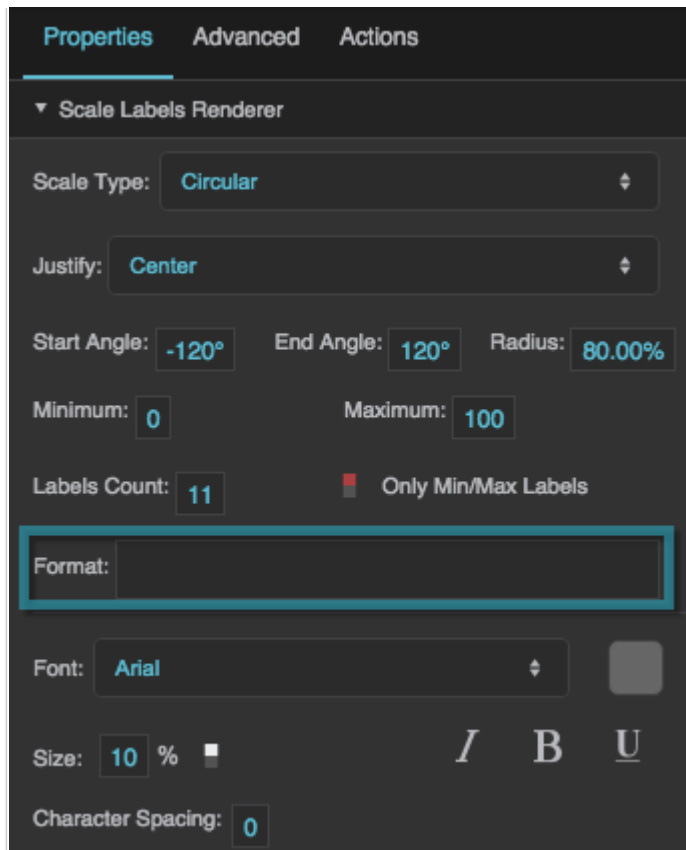
Format

Defines the number format for scale labels, as a format string.

For example:

- **,##0.00**: Labels have a thousands separator and two decimal digits.
- **000.00**: Labels have three mandatory digits before the decimal, and two mandatory digits after the decimal.

For more information about supported formatting options, see [Scripting and Syntax](#).



The Format property

Labels Font

Defines the font used for the labels along this scale. To add a font to this project and use it for this property, see [Text Component Properties](#).

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 Only Min/Max Labels

Format:

Font: Arial

Size: 10 %

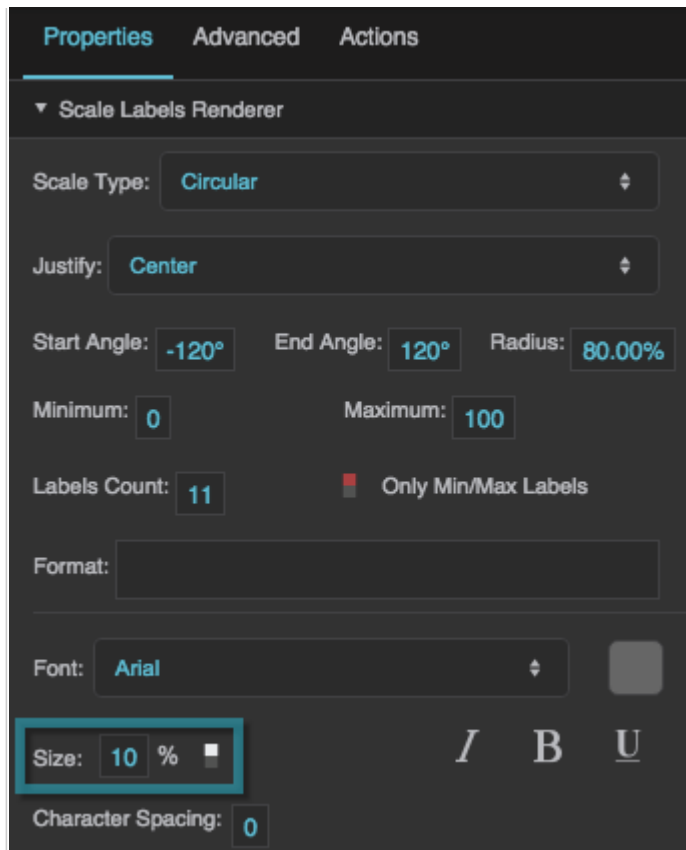
Character Spacing: 0

I **B** U

The Font property

Labels Size

Defines the height of the scale numbers, as a pixel value or percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.



Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 Only Min/Max Labels

Format:

Font: Arial

Size: 10 %

Character Spacing: 0

I **B** U

The Labels Size property

Italic

Defines whether the labels along this scale are italic.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: **Circular**

Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

Minimum: **0** Maximum: **100**

Labels Count: **11** ☐ Only Min/Max Labels

Format:

Font: **Arial**

Size: **10** % ☐

Character Spacing: **0**

I **B**

The Italic property

Bold

Defines whether the labels along this scale are bold.

The screenshot shows the 'Properties' tab of a software interface for designing gauges. Under the 'Scale Labels Renderer' section, the following settings are visible:

- Scale Type:** Circular
- Justify:** Center
- Start Angle:** -120°
- End Angle:** 120°
- Radius:** 80.00%
- Minimum:** 0
- Maximum:** 100
- Labels Count:** 11
- Only Min/Max Labels:** (unchecked)
- Format:** (empty text field)
- Font:** Arial
- Size:** 10 %
- Character Spacing:** 0
- Styling:** Italic (I), Bold (B, highlighted with a red box), and Underline (U) buttons are present.

The Bold property

Underline

Defines whether the labels along this scale are underlined.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☐ Only Min/Max Labels

Format:

Font: Arial

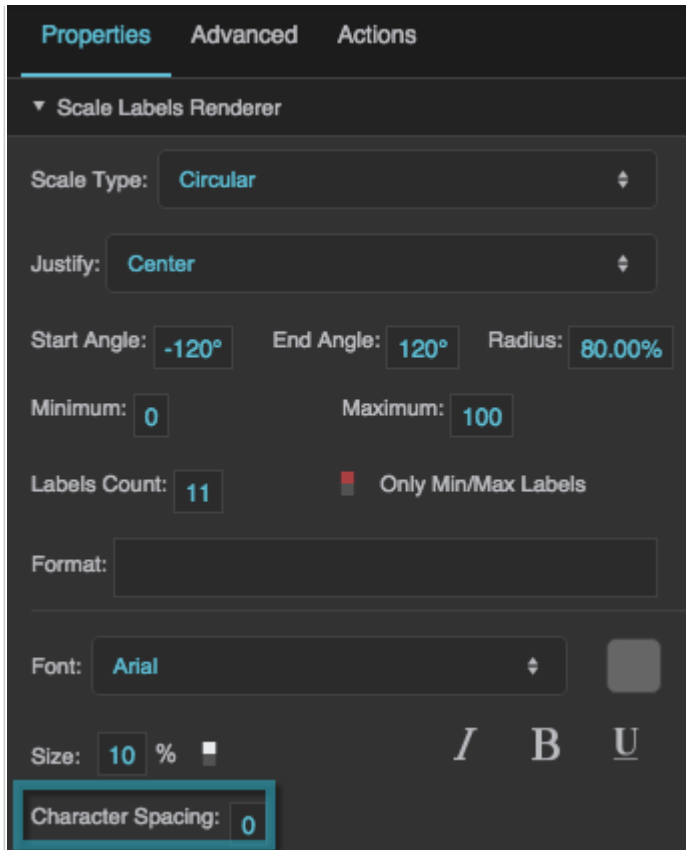
Size: 10 % *I* **B** U

Character Spacing: 0

The Underline property

Character Spacing

Specifies the horizontal spacing between characters in the scale labels, as a pixel value. A null value means the font's default spacing is used.



The screenshot shows the 'Properties' panel for a gauge scale. The 'Scale Labels Renderer' section is expanded. The 'Scale Type' is set to 'Circular'. The 'Justify' is set to 'Center'. The 'Start Angle' is -120°, the 'End Angle' is 120°, and the 'Radius' is 80.00%. The 'Minimum' is 0 and the 'Maximum' is 100. The 'Labels Count' is 11, and the 'Only Min/Max Labels' checkbox is checked. The 'Format' field is empty. The 'Font' is set to 'Arial'. The 'Size' is 10%. The 'Character Spacing' is 0, which is highlighted with a red box. There are also buttons for 'I', 'B', and 'U' (italic, bold, and underline) and a 'Format' button.

The Character Spacing property

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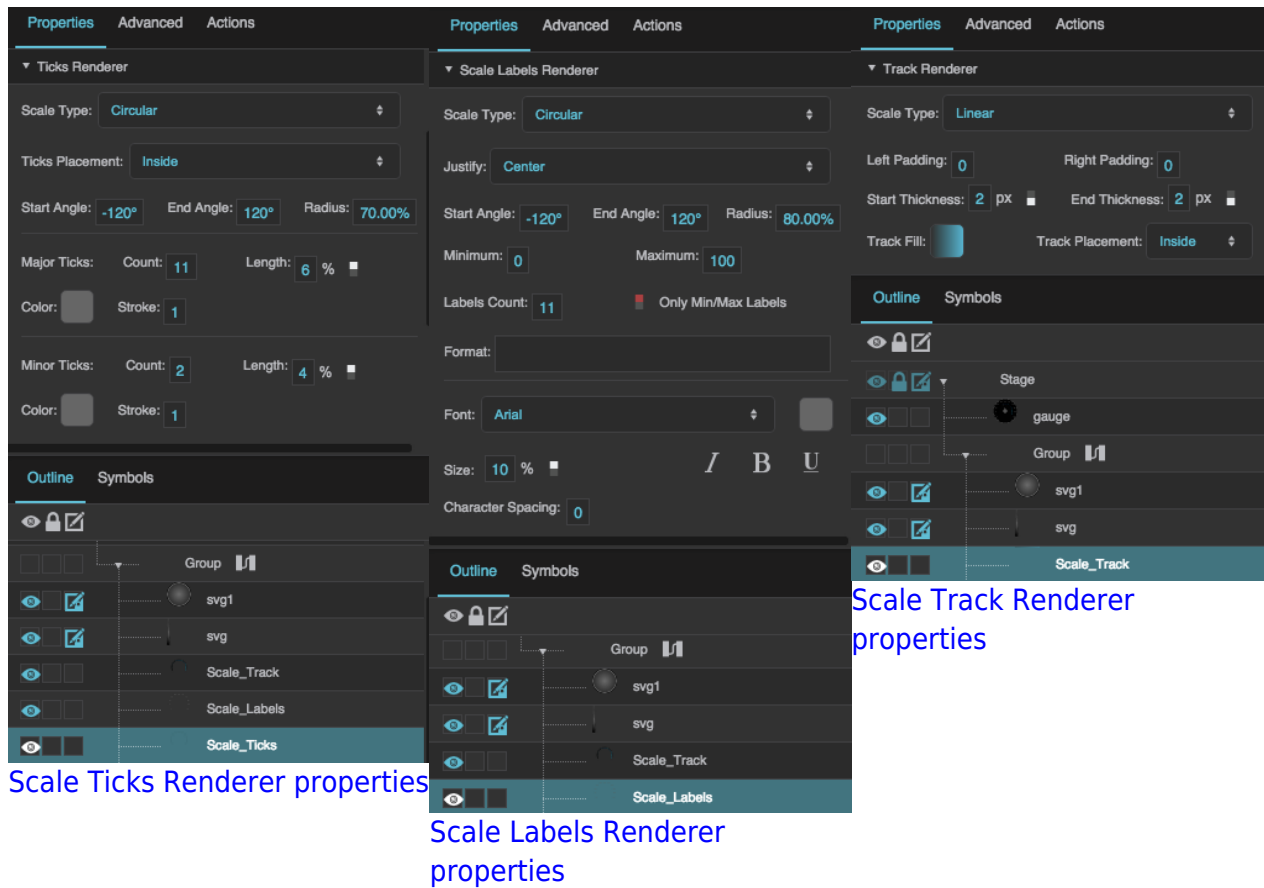
Gauge Scale Properties

These properties affect gauge scales. A gauge scale fits into one of three categories, based on whether it has ticks, labels, or a track. Each category has its own properties.

For a guide to using gauges, see [Designing Gauges](#).



Gauges and gauge scales can also be affected using [Common Properties](#).



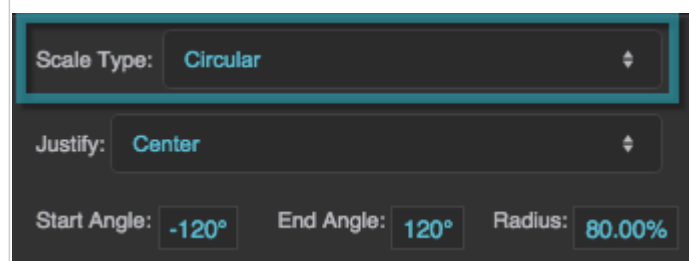
Click to display/hide all elements

Shared Gauge Scale Properties

These properties affect the shape of any type of gauge scale.

Scale Type

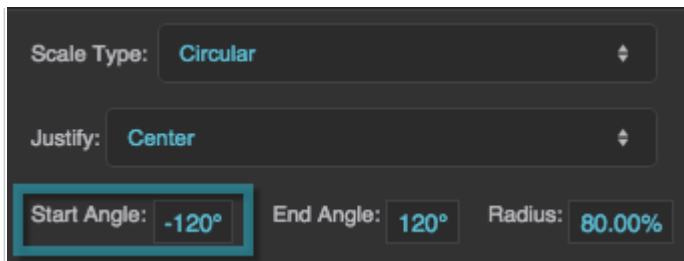
Specifies whether the shape of the scale is defined by a circle or a straight line.



The *Scale Type* property

Start Angle

Defines the start angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180.



Scale Type: **Circular**

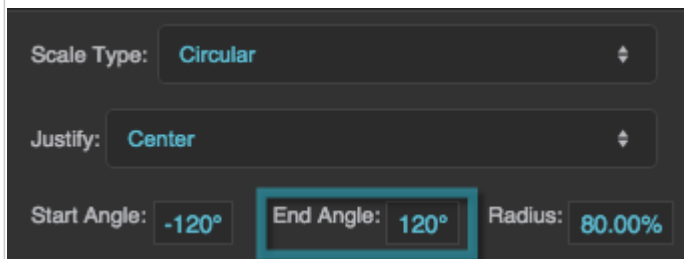
Justify: **Center**

Start Angle: -120° End Angle: **120°** Radius: **80.00%**

The Start Angle property

End Angle

Defines the end angle of the circular scale. A value of zero indicates the top of the circle. Valid values are between -180 and 180 .



Scale Type: **Circular**

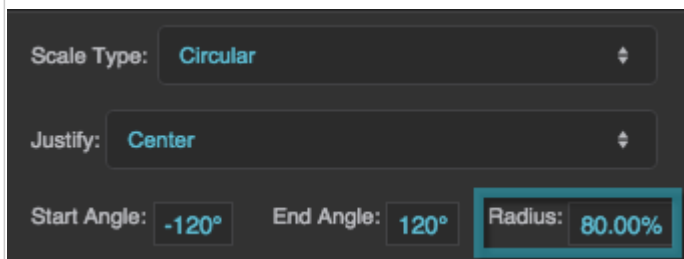
Justify: **Center**

Start Angle: **-120°** **End Angle: 120°** Radius: **80.00%**

The End Angle property

Radius

Defines the radius of the circle that defines the scale, as a percentage of either half the width or half the height of the container, whichever is larger.



Scale Type: **Circular**

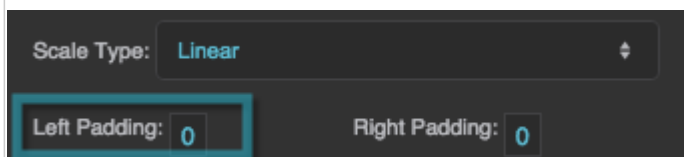
Justify: **Center**

Start Angle: **-120°** End Angle: **120°** **Radius: 80.00%**

The Radius property

Left Padding

Defines the distance between the left side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders](#), [Padding](#), and [Content Size](#).



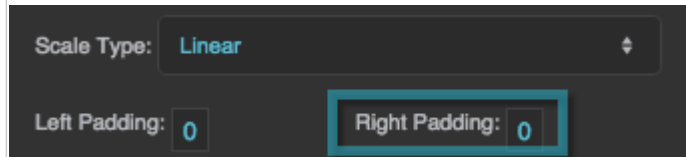
Scale Type: **Linear**

Left Padding: 0 Right Padding: **0**

The Left Padding property

Right Padding

Defines the distance between the right side of a linear scale and the container boundary, in pixels. If a border stroke is defined, defines the distance between the scale and the border stroke. See [Borders](#), [Padding](#), and [Content Size](#).



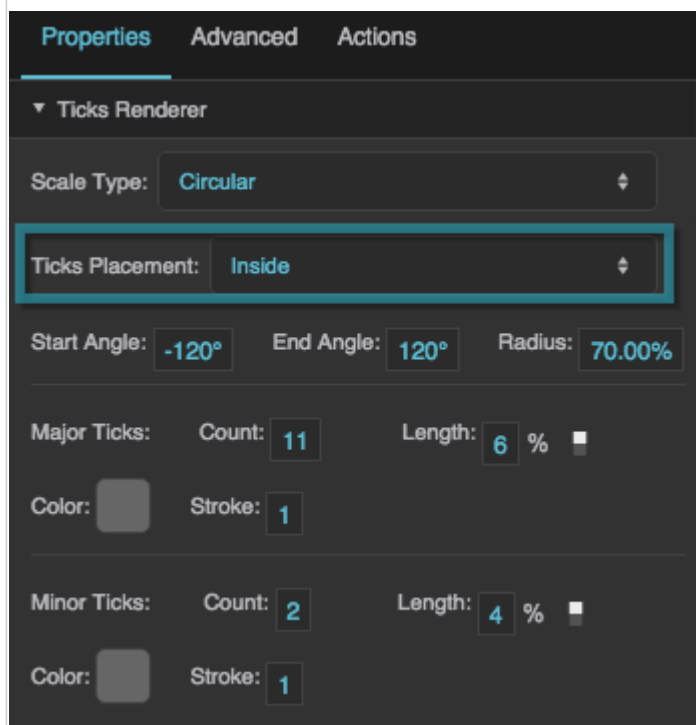
The Right Padding property

Scale Ticks Renderer Properties

These properties affect a scale with ticks.

Ticks Placement

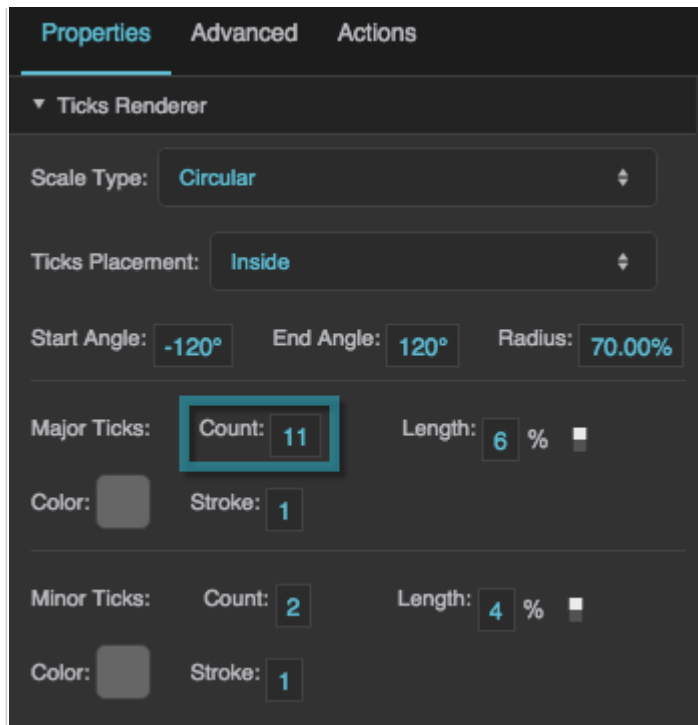
Specifies whether the ticks are positioned on the inside, outside, or center of the circle or line that defines the scale.



The Ticks Placement property

Major Tick Count

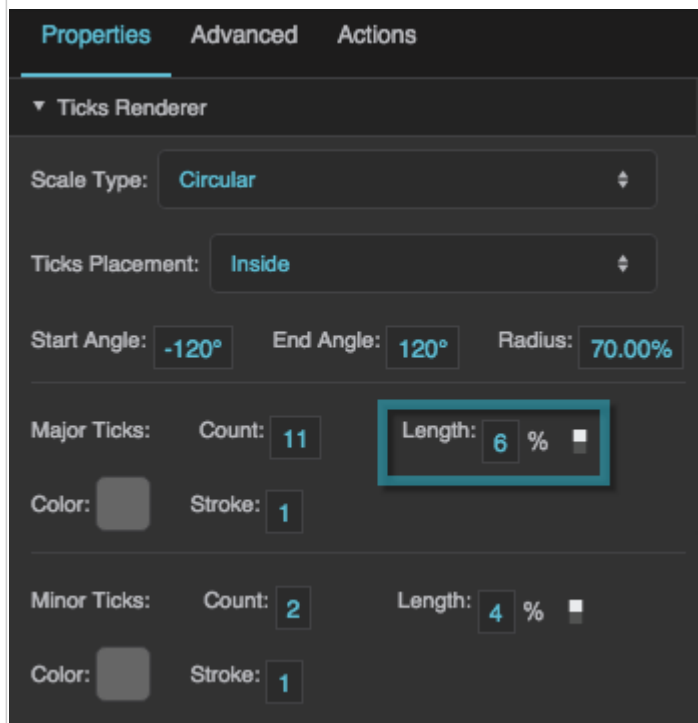
Defines the total number of major ticks along this scale.



The Major Tick Count property

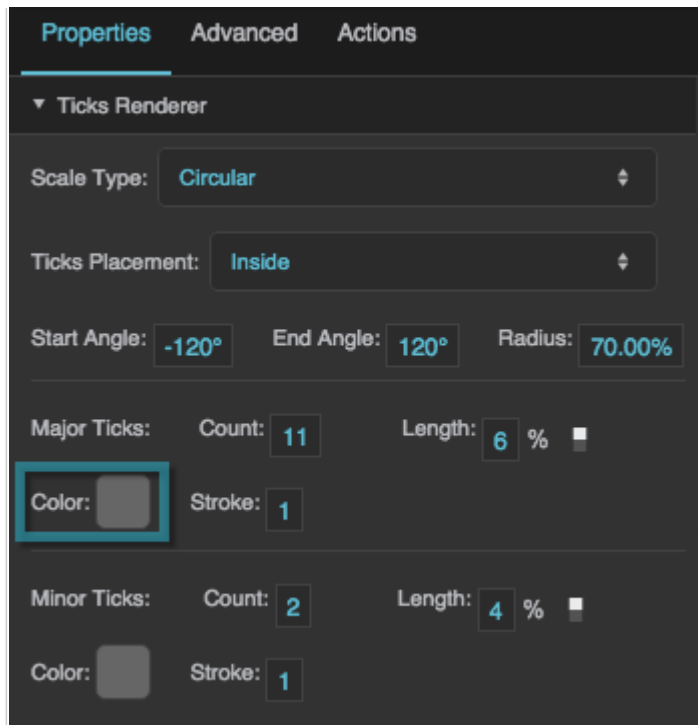
Major Ticks Length

Defines the length of each major tick, as a pixel value or a percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.



The Major Tick Length property

Defines the stroke color of the major ticks.



Properties Advanced Actions

▼ Ticks Renderer

Scale Type: Circular

Ticks Placement: Inside

Start Angle: -120° End Angle: 120° Radius: 70.00%

Major Ticks: Count: 11 Length: 6 %

Color: Stroke: 1

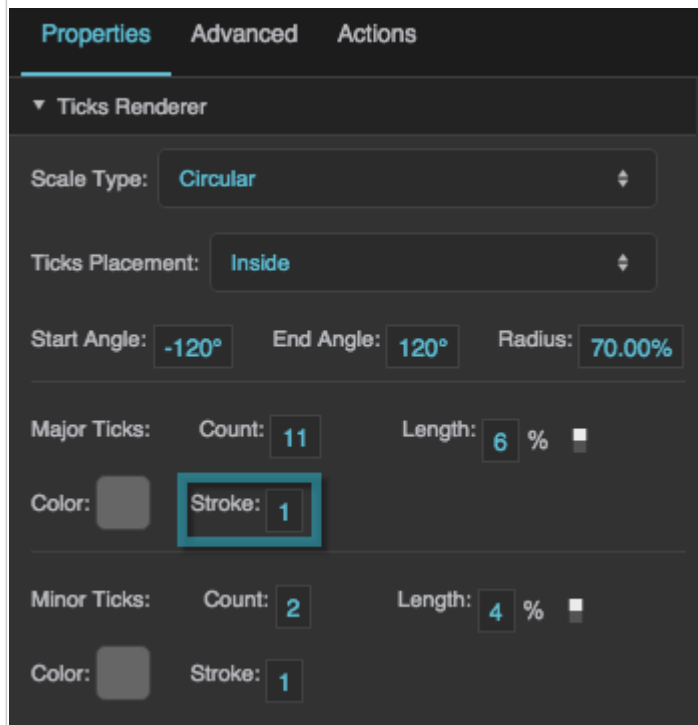
Minor Ticks: Count: 2 Length: 4 %

Color: Stroke: 1

The Major Tick Color property

Major Tick Stroke Weight

Defines the stroke weight of each major tick.



Properties Advanced Actions

▼ Ticks Renderer

Scale Type: Circular

Ticks Placement: Inside

Start Angle: -120° End Angle: 120° Radius: 70.00%

Major Ticks: Count: 11 Length: 6 %

Color: Stroke: 1

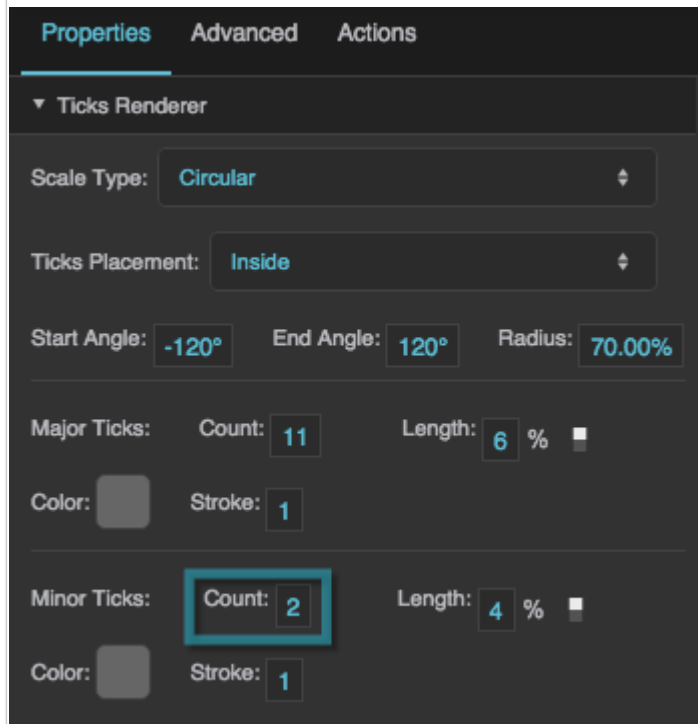
Minor Ticks: Count: 2 Length: 4 %

Color: Stroke: 1

The Major Tick Weight property

Minor Tick Count

Defines the number of minor ticks between each consecutive pair of major ticks.

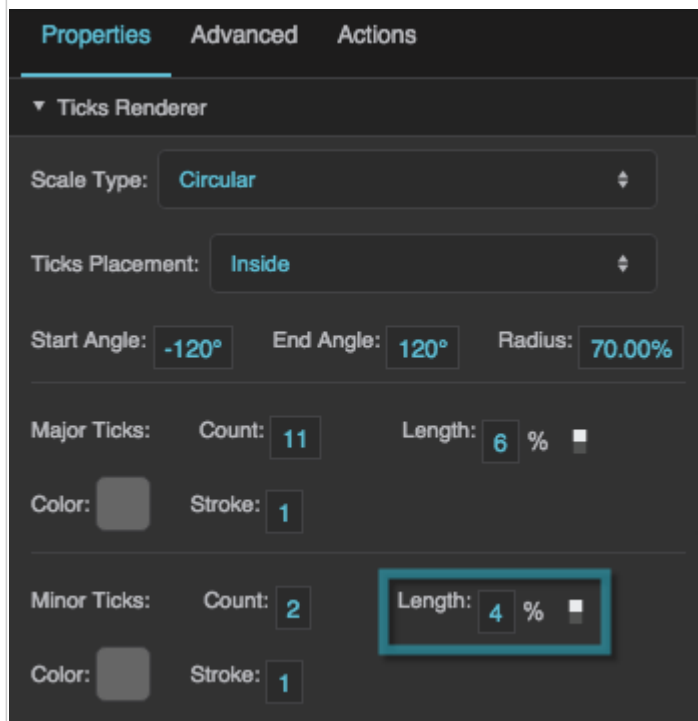


The screenshot shows the 'Properties' panel for a gauge. The 'Ticks Renderer' section is expanded. Under 'Major Ticks', the 'Count' is 11 and 'Length' is 6%. Under 'Minor Ticks', the 'Count' is 2, which is highlighted with a red box. The 'Length' for minor ticks is 4%.

The Minor Tick Count property

Minor Tick Length

Defines the length of each minor tick, as a pixel value or a percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.



The screenshot shows the 'Properties' panel for a gauge. The 'Ticks Renderer' section is expanded. Under 'Major Ticks', the 'Count' is 11 and 'Length' is 6%. Under 'Minor Ticks', the 'Count' is 2 and 'Length' is 4%, which is highlighted with a red box. The 'Length' for minor ticks is 4%.

The Minor Tick Length property

Minor Tick Stroke Color

Defines the stroke color of the minor ticks.

The screenshot shows the 'Properties' tab of a gauge design tool. Under the 'Ticks Renderer' section, the 'Scale Type' is set to 'Circular' and 'Ticks Placement' is set to 'Inside'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 70.00%. The 'Major Ticks' section shows a count of 11, length of 6%, and a color swatch. The 'Minor Ticks' section shows a count of 2, length of 4%, and a color swatch. The 'Color' property for the minor ticks is highlighted with a red box.

The Minor Tick Color property

Minor Tick Stroke Weight

Defines the stroke weight of each minor tick.

The screenshot shows the 'Properties' tab of a gauge design tool. Under the 'Ticks Renderer' section, the 'Scale Type' is set to 'Circular' and 'Ticks Placement' is set to 'Inside'. The 'Start Angle' is -120°, 'End Angle' is 120°, and 'Radius' is 70.00%. The 'Major Ticks' section shows a count of 11, length of 6%, and a color swatch. The 'Minor Ticks' section shows a count of 2, length of 4%, and a color swatch. The 'Stroke' property for the minor ticks is highlighted with a red box.

The Minor Tick Weight property

Scale Labels Renderer Properties

These properties affect a scale with number labels.

Justify

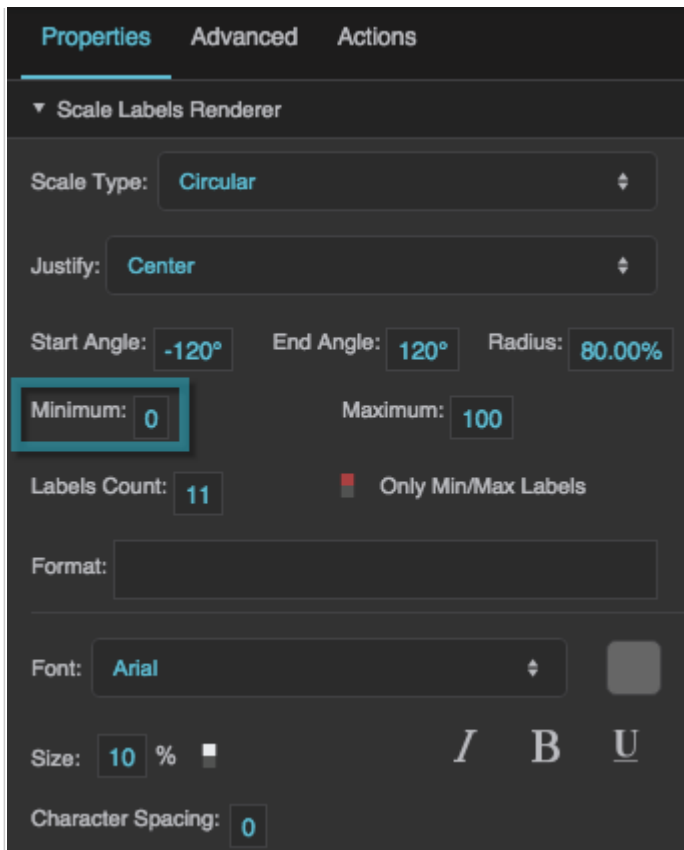
Specifies whether the labels appear on the inside, outside, or center of the circle or line that defines the scale.

The screenshot shows a dark-themed properties panel for a 'Scale Labels Renderer'. The 'Properties' tab is selected. The 'Justify' property is highlighted with a red rectangular border and is set to 'Center'. Other properties visible include 'Scale Type' set to 'Circular', 'Start Angle' at '-120°', 'End Angle' at '120°', 'Radius' at '80.00%', 'Minimum' at '0', 'Maximum' at '100', 'Labels Count' at '11', a checkbox for 'Only Min/Max Labels', a 'Format' text field, 'Font' set to 'Arial', 'Size' at '10%', and 'Character Spacing' at '0'. There are also icons for font style (italic, bold, underline) and a color swatch.

The Justify property

Minimum

Defines the lowest number on the scale.

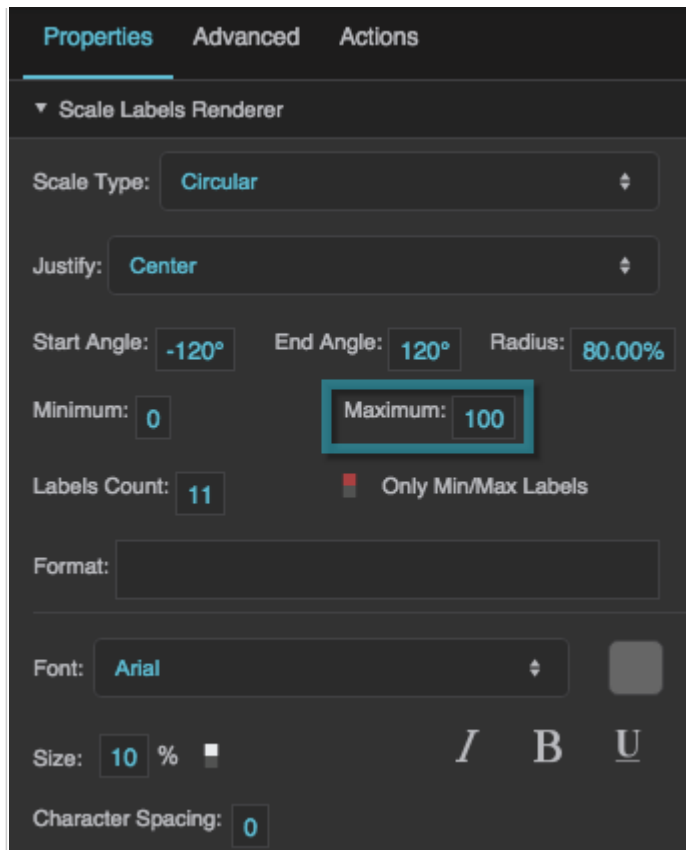


The screenshot shows the 'Properties' panel of a software interface, specifically the 'Scale Labels Renderer' section. The panel has three tabs: 'Properties', 'Advanced', and 'Actions'. The 'Properties' tab is selected. The 'Scale Labels Renderer' section contains several settings: 'Scale Type' is set to 'Circular', 'Justify' is set to 'Center', 'Start Angle' is '-120°', 'End Angle' is '120°', and 'Radius' is '80.00%'. The 'Minimum' property is set to '0' and is highlighted with a red rectangular box. The 'Maximum' property is set to '100'. Below these, 'Labels Count' is '11' and there is a checkbox for 'Only Min/Max Labels' which is unchecked. The 'Format' property is empty. The 'Font' is set to 'Arial' and the 'Size' is '10 %'. There are also buttons for 'I', 'B', and 'U' (italic, bold, and underline). The 'Character Spacing' is set to '0'.

The Minimum property

Maximum

Defines the highest number on the scale.



The Maximum property

Labels Count

Defines the total number of labels along this scale. Must be an integer greater than or equal to 2. The **Only Min/Max Labels** property overrides this property.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: **Circular**

Justify: **Center**

Start Angle: **-120°** End Angle: **120°** Radius: **80.00%**

Minimum: **0** Maximum: **100**

Labels Count: 11 ☐ Only Min/Max Labels

Format:

Font: **Arial**

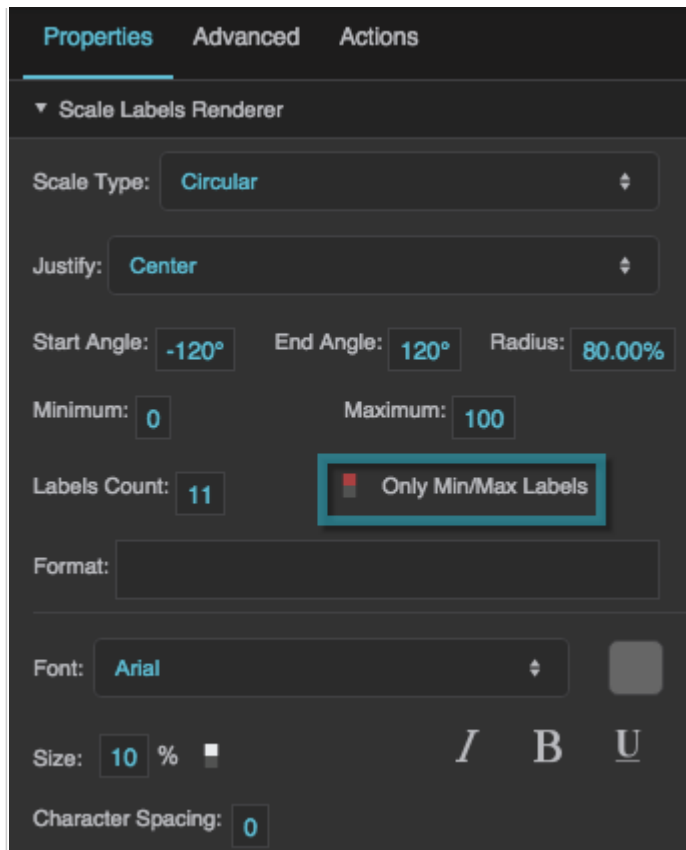
Size: **10** % *I* **B** U

Character Spacing: **0**

The Labels Count property

Only Min/Max Labels

Specifies whether the labels for the minimum and maximum of the scale are the only two labels that appear. This property overrides the **Labels Count** property.



The screenshot shows the 'Properties' panel for a gauge, specifically the 'Scale Labels Renderer' section. The 'Scale Type' is set to 'Circular', 'Justify' is 'Center', 'Start Angle' is '-120°', 'End Angle' is '120°', and 'Radius' is '80.00%'. The 'Minimum' is '0' and 'Maximum' is '100'. The 'Labels Count' is '11'. The 'Only Min/Max Labels' checkbox is checked and highlighted with a red box. The 'Format' field is empty. The 'Font' is 'Arial', 'Size' is '10 %', and 'Character Spacing' is '0'. There are also buttons for 'I', 'B', and 'U'.

The Only Min/Max Labels property

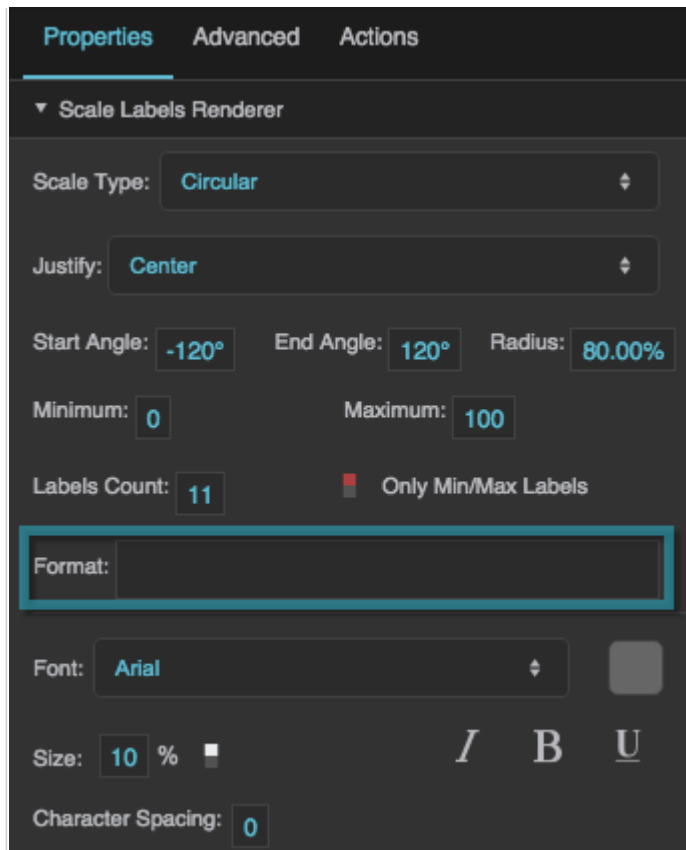
Format

Defines the number format for scale labels, as a format string.

For example:

- **,##0.00**: Labels have a thousands separator and two decimal digits.
- **000.00**: Labels have three mandatory digits before the decimal, and two mandatory digits after the decimal.

For more information about supported formatting options, see [Scripting and Syntax](#).



The Format property

Labels Font

Defines the font used for the labels along this scale. To add a font to this project and use it for this property, see [Text Component Properties](#).

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☐ Only Min/Max Labels

Format:

Font: Arial

Size: 10 % ☐ */ **B** / U*

Character Spacing: 0

The Font property

Labels Size

Defines the height of the scale numbers, as a pixel value or percentage. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of half the container width.

The image shows a software interface for configuring a gauge's scale labels. It features a dark-themed panel with several settings:

- Properties** (selected), **Advanced**, **Actions**
- Scale Labels Renderer** (expanded section)
- Scale Type:** Circular
- Justify:** Center
- Start Angle:** -120°, **End Angle:** 120°, **Radius:** 80.00%
- Minimum:** 0, **Maximum:** 100
- Labels Count:** 11, **Only Min/Max Labels:** (checkbox)
- Format:** (empty text field)
- Font:** Arial
- Size:** 10 % (highlighted with a red box)
- Character Spacing:** 0
- Formatting icons: *I*, **B**, U

The Labels Size property

Italic

Defines whether the labels along this scale are italic.

The image shows a software interface for configuring a gauge's scale labels. It features three tabs: 'Properties' (selected), 'Advanced', and 'Actions'. Under the 'Properties' tab, the 'Scale Labels Renderer' section is expanded. The settings include: 'Scale Type' set to 'Circular', 'Justify' set to 'Center', 'Start Angle' at '-120°', 'End Angle' at '120°', and 'Radius' at '80.00%'. The 'Minimum' is '0' and the 'Maximum' is '100'. 'Labels Count' is '11', and the 'Only Min/Max Labels' checkbox is unchecked. The 'Format' field is empty. The 'Font' is 'Arial', and the 'Size' is '10 %'. The 'Character Spacing' is '0'. In the font formatting section, the 'Italic' button (represented by an 'I' in a box) is highlighted with a red rectangle, while the 'Bold' (B) and 'Underline' (U) buttons are not.

The Italic property

Bold

Defines whether the labels along this scale are bold.

The image shows a software interface for configuring a gauge's scale labels. It features a dark-themed panel with several settings:

- Properties** (selected), **Advanced**, **Actions**
- Scale Labels Renderer** (expanded section)
- Scale Type:** Circular
- Justify:** Center
- Start Angle:** -120°, **End Angle:** 120°, **Radius:** 80.00%
- Minimum:** 0, **Maximum:** 100
- Labels Count:** 11, **Only Min/Max Labels:** (checkbox)
- Format:** (empty text field)
- Font:** Arial
- Size:** 10 %
- Character Spacing:** 0
- Styling:** Italic (I), **Bold (B)** (highlighted with a red box), Underline (U)

The Bold property

Underline

Defines whether the labels along this scale are underlined.

The screenshot shows the 'Properties' tab of a software interface for configuring a gauge's scale labels. The 'Scale Labels Renderer' section is expanded, showing various settings. The 'Scale Type' is set to 'Circular', 'Justify' is 'Center', 'Start Angle' is '-120°', 'End Angle' is '120°', and 'Radius' is '80.00%'. The 'Minimum' value is '0' and the 'Maximum' value is '100'. The 'Labels Count' is '11', and the 'Only Min/Max Labels' checkbox is checked. The 'Format' field is empty. The 'Font' is 'Arial', and the 'Size' is '10 %'. The 'Character Spacing' is '0'. The 'Underline' button, represented by a 'U' with a horizontal line, is highlighted with a red rectangle.

Properties Advanced Actions

▼ Scale Labels Renderer

Scale Type: Circular

Justify: Center

Start Angle: -120° End Angle: 120° Radius: 80.00%

Minimum: 0 Maximum: 100

Labels Count: 11 ☒ Only Min/Max Labels

Format:

Font: Arial

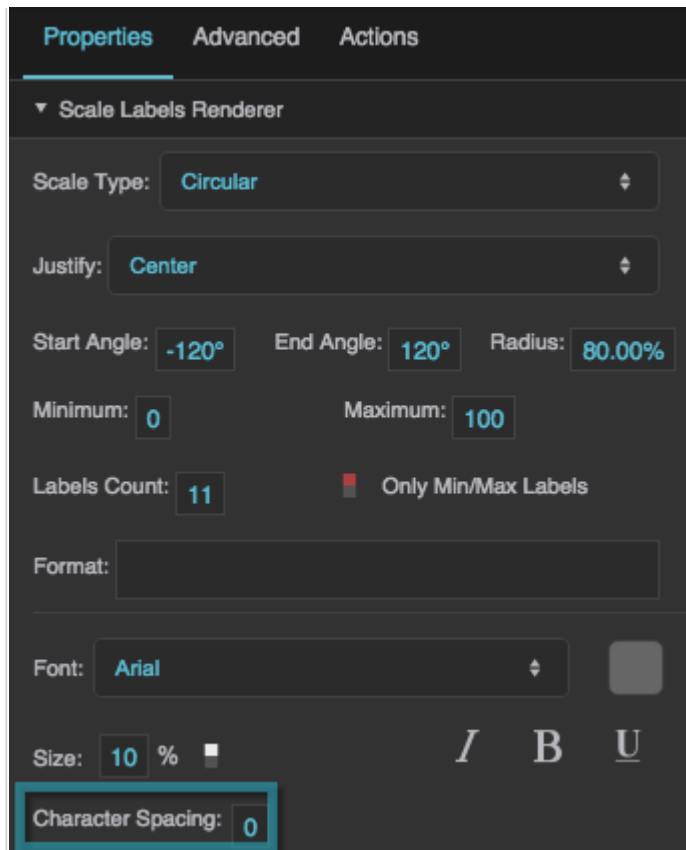
Size: 10 % *I* **B** U

Character Spacing: 0

The Underline property

Character Spacing

Specifies the horizontal spacing between characters in the scale labels, as a pixel value. A null value means the font's default spacing is used.



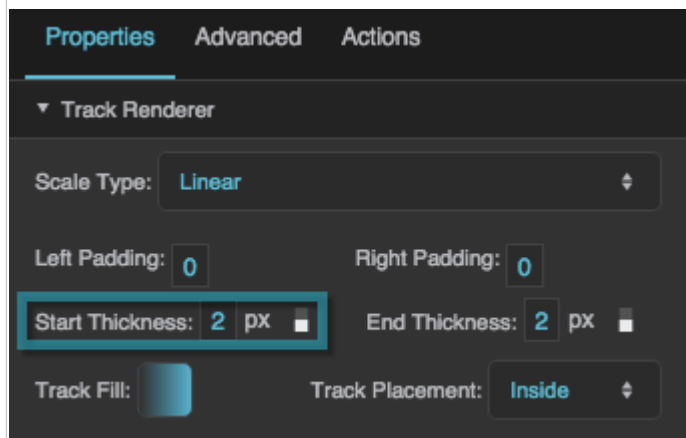
The Character Spacing property

Scale Track Renderer Properties

These properties affect a scale with a track.

Start Thickness

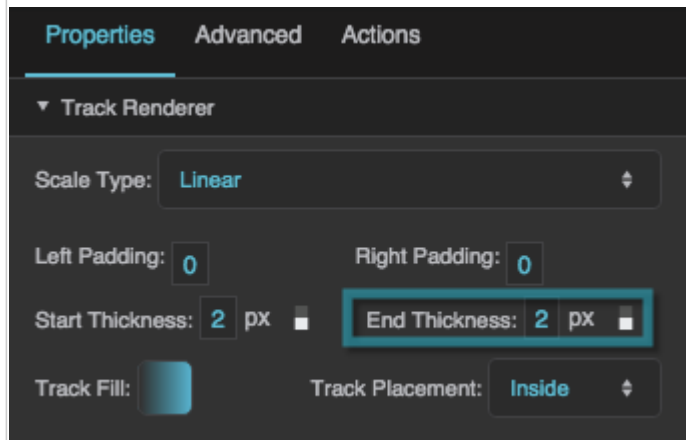
Defines the thickness of the scale track at its start, as a pixel or percentage value. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of the entire container width.



The Start Thickness property

End Thickness

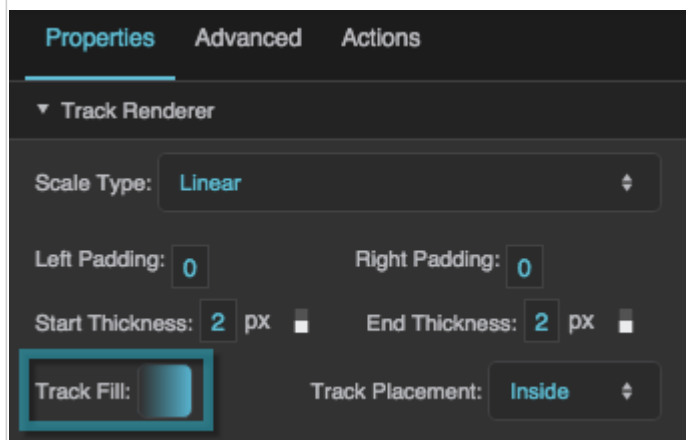
Defines the thickness of the scale track at its end, as a pixel or percentage value. For circular scales, a percentage is a portion of the circle's radius. For linear scales, a percentage is a portion of the entire container width.



The End Thickness property

Track Fill

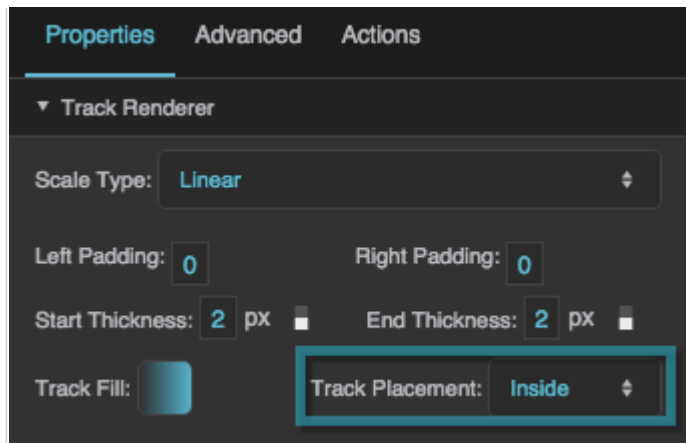
Defines the colors for the gradient fill for the scale track. To add colors, click below the track in the dialog. To delete colors, right-click on them in the dialog.



The Track Fill property

Track Placement

Specifies whether the track is positioned on the inside, outside, or center of the circle or line that defines the scale.



The Track Placement property

[Previous: Raw SVG Repeater Properties](#)

[Next: Input Component Properties](#)

2019/07/17 19:17

More Resources

This thread in the DGLogik Community Forum addresses gauges:

- [Building a basic gauge](#)

[Previous: Gauges](#)

[Next: Scale Ticks](#)

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