



## Gradient Panel and Gradient Tool

You can use the Gradient panel (Window > Gradient) or the Gradient tool to apply, create, and modify gradients.

A gradient is a graduated blend of two or more colors or tints of the same color. You can use gradients to create color blends, add volume to vector objects, and add a light and shadow effect to your artwork. In Illustrator, you can create, apply, and modify a gradient using the Gradient panel, the Gradient tool, or the Control panel.

### Gradient panel

In the Gradient panel, the Gradient Fill box displays the current gradient colors and gradient type. When you click the Gradient Fill box, the selected object is filled with the gradient. Directly to the right of this box is the Gradient menu that lists all the default and preserved gradients from which you can choose. At the bottom of the list is a Save Gradient button that you can click to save the current gradient settings as a swatch.

By default, the panel includes a start and end color box, but you can add more color boxes by clicking anywhere along the gradient slider. Double-clicking a gradient stop opens the gradient stop color panel where you can choose a color from the Color panel or Swatches panel.



### Gradients on strokes

Apply gradients to your strokes — along the length, across the width, or within the stroke itself — all with complete control over gradient placement and opacity.

**Note:** *Linear and Radial gradients can be applied on the fill and the stroke of an object. The Freeform gradient can be applied only on the fill of an object.*

**Gradient Types:** In Illustrator, you can create the following three types of gradients:

**Linear:** Use this gradient type to blend colors from one point to another in a straight line.

**Radial:** Use this gradient type to blend colors from one point to another point in a circular pattern.

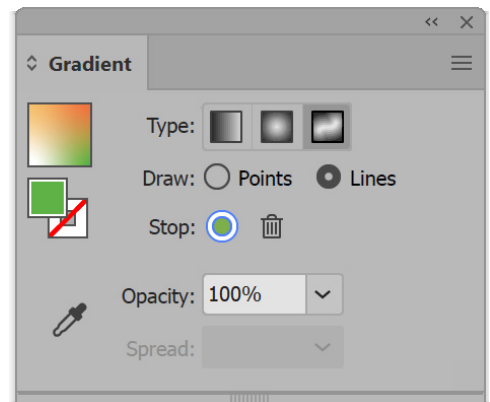
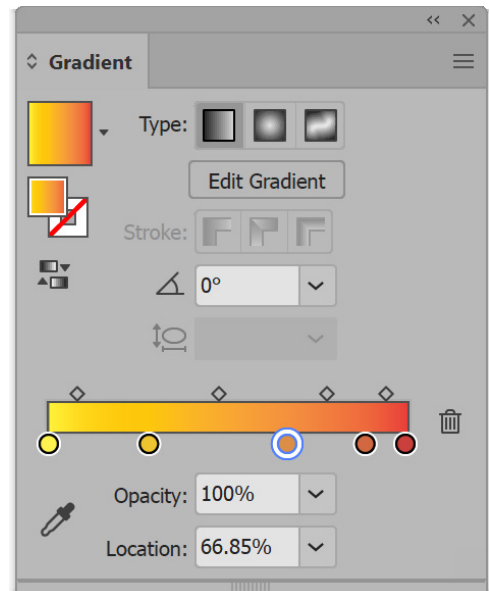
**Freeform:** Use this gradient type to create a graduated blend of color stops within a shape in an ordered or random sequence such that the blending appears smooth and natural. Freeform gradient can be applied in two modes:

Points: Use this mode to shade the area around a color stop.

Lines: Use this mode to shade the area around a line.

### One Color Gradient

To create a gradient using only one spot color, you'll get better printing results if you create a gradient that goes from 100% to 0% of the same color (rather than using white as the second color). Just drag your spot color to the beginning and ending color stops to the Gradient Slider in the Gradient panel, then double-click the second color stop, go to the Color panel, and change its percentage to zero in the Tint Percentage field.





## Color Stop

You can pick a color from an object in a document and use it to color a gradient stop. In the Gradient Slider, click on the stop you want to change and then pick the Eyedropper tool. Hold down the Shift key and click on an object to use its fill color for the gradient stop.

## Duplicate A Color Stop

If you need to use the same color elsewhere in a gradient, you can easily copy a stop. In the Gradient Slider on the Gradient panel, press-and-hold the Alt key, and then click on a stop and drag a copy to create a new color stop on the gradient.

## Swap Stops

In the Gradient Slider on the Gradient panel, you can swap colors by holding down the Alt key and drag an existing stop (the color you want) on top of another stop (the color you want to replace).

## Use A Swatch As A Color Stop

If you go to the Gradient panel, click on a color stop in the Gradient Slider, and then click on a swatch, the object's color will change to the swatch rather than editing the gradient. To apply a swatch to a color stop, click on the stop, hold down the Alt key and click on a swatch in the Swatches panel. You can also click-and-drag a swatch from the Swatches panel and drop it onto the Gradient Slider to create a new color stop while holding down the Alt key.

## Apply a gradient to an object

Select an object and do one of the following:

- To apply the last used gradient, click the Gradient box in the Tools panel or the Gradient Fill box in the Gradient panel.
- To apply the last used gradient to an unselected object that currently does not contain a gradient, click the object with the Gradient tool.
- To apply a preset or previously saved gradient, choose a gradient from the Gradient menu in the Gradient panel or click a gradient swatch in the Swatches panel.

## Apply a gradient across multiple objects

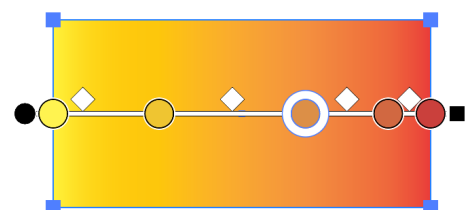
- Fill all the objects with a gradient.
- Select all of the objects that you want filled.
- Using the Gradient tool, do one of the following:

To create a gradient with one gradient, click in the artboard where you want the gradient to start, and drag to where you want the gradient to end.

## Gradient Annotator

For the linear and radial gradient types, when you click the Gradient tool in the toolbar, Gradient Annotator appears in the object. Gradient Annotator is a slider that shows a starting point, an end point, a midpoint, and two color stops for the starting and end points.

You can use Gradient Annotator to modify the angle, location, and spread of a linear gradient; and the focal point, origin, and spread of a radial gradient. Once the gradient annotator appears in the object, you can either use the Gradient panel or Gradient Annotator to add new color stops, specify new colors for individual color stops, change opacity settings, and drag color stops to new locations.



To hide or show the gradient annotator, choose View > Hide Gradient Annotator or View > Show Gradient Annotator.

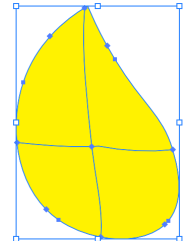


## Mesh Gradient

A mesh object is a multicolored object on which colors can flow in different directions and transition smoothly from one point to another. When you create a mesh object, multiple lines called mesh lines criss-cross the object and provide a way to easily manipulate color transitions on the object. By moving and editing points on the mesh lines, you can change the intensity of a color shift, or change the extent of a colored area on the object.

To apply a mesh to an object:

- Select the Mesh tool in the Tool Box, shortcut is U.
- Click inside an object to insert a mesh point. The object is converted to a mesh object with the minimum number of mesh lines.
- Continue clicking to add additional mesh points.
- Changing the color of a mesh point by directly dragging a color from the swatch panel and place it on top of a mesh point.
- You can also drag a color to the inside of a mesh patch to change the color of the patch.

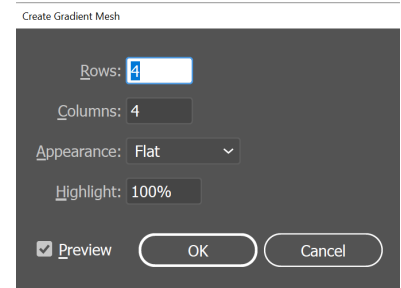


### Create gradient mesh

Another way to create a mesh object is by selecting the object and then got to Object > Create Gradient Mesh.

Set the number of rows and columns, and select the direction of the highlight in the Gradient Mesh Panel:

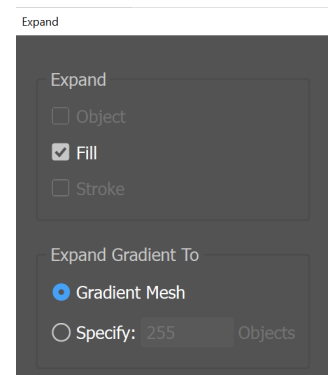
- ◆ **Flat:** Applies the object's original color evenly across the surface, resulting in no highlight.
- ◆ **To Center:** Creates a highlight in the center of the object.
- ◆ **To Edge:** Creates a highlight on the edges of the object.



Enter a percentage of white highlight to apply to the mesh object. A value of 100% applies maximum white highlight to the object; a value of 0% applies no white highlight to the object.

### Convert a gradient-filled object to a mesh object

- Select the gradient filled object and choose Object > Expand.
- In the Expand panel, select Gradient Mesh.
- The selected object is converted to a mesh object that takes the shape of the gradient, either circular (radial) or rectangular (linear).
- The object is converted into a masked object. To view the mesh grid, click on the Edit Content icon either in the Control panel or in the Properties panel.



### Edit Mesh Object

- To add a mesh point, select the Mesh tool and select a fill color for the new mesh points. Then click anywhere in the mesh object.
- To delete a mesh point, Alt-click (Windows) or Option-click (Mac OS) the mesh point with the Mesh tool.
- To move a mesh point, drag it with the Mesh tool or Direct Selection tool.
- Shift-drag a mesh point with the Mesh tool to keep the mesh point on a mesh line. This is a convenient way to move a mesh point along a curved mesh line without distorting the mesh line.



## Create and apply a freeform gradient

To create and apply a freeform gradient, do one of the following:

- Click the Gradient tool and then click the object on the canvas. The Gradient Type buttons are displayed in the Control panel or Properties panel. With the object selected, click Freeform Gradient to apply the Freeform gradient on the object.
- In the Gradient panel, click Freeform Gradient.
- In the Properties panel, click Freeform Gradient in the Gradient section.

After you click Freeform gradient, the following two options are available:

**Points:** Select this option if you want to create color stops as independent points in the object.

**Lines:** Select this option if you want to create color stops over a line segment in the object.

*Note: To copy a freeform gradient from one object to another, use the Eyedropper tool in the toolbar*

*Note: Freeform gradient cannot be saved as a swatch in the Swatches panel.*

### Create freeform gradient in points mode

Do the following to create, modify, and delete the freeform gradient for the point mode:

- To add one or more color stops, click anywhere in the object.
- To change the position of color stops, drag them and place at the desired location.
- To delete the color stop, drag them outside the object area or click Delete in the Gradient panel or press the Delete key.
- You can set the spread of a color stop in the points freeform gradient. Spread is the circular area around the color stop in which a gradient is to be applied.

To set the spread of a color stop, select the color stop and do one of the following:

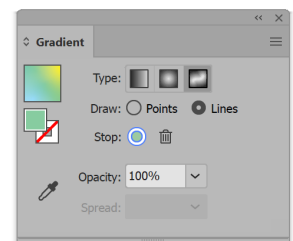
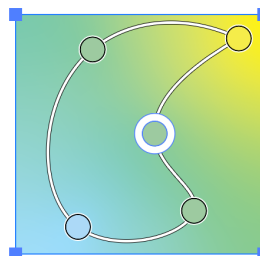
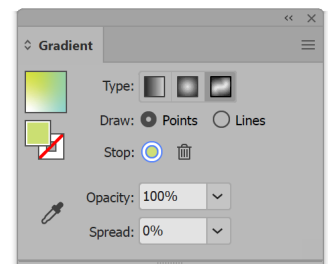
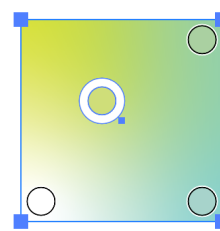
- In the Control panel, Properties panel, or Gradient panel, select or type a value in the Spread drop-down list.
- You can also use slider that appears when you click Spread in the Control panel.

By default the spread of color stops is 0%.

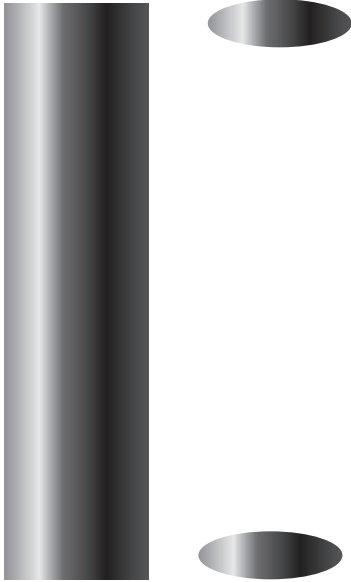
### Create freeform gradient in lines mode

To add color stops for the freeform gradient for line mode:

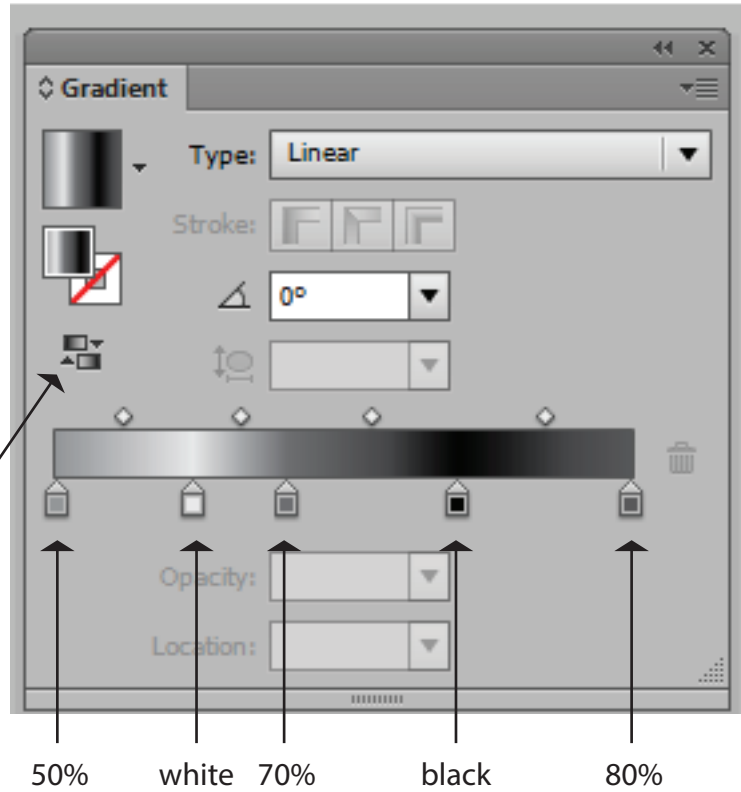
- Click anywhere in the object to create the first color stop, which is the starting point for the line segment.
- Click to create the next color stop. A straight line is added connecting the first and the second color stops.
- Click again to create further color stops. The straight line changes into a curved line.
- To get out, press the Esc key.
- To change any curved line into a straight line or vice versa, hold down the Alt (option) key and click on the color stop.



*Note: to quickly edit the color of the color stops, before using the Freeform gradient, in the Swatches panel, change all the colors you'll like to use into Global Color first by selecting the color, then go to Submenu > Swatch Option or double-clicking on the swatch.*



Draw a tube, 0.75" x 3", filled with gradient (Double-click on the gradient tool to open up the gradient panel). Draw 2 ellipses, 0.75" x 0.25", also filled with the same gradient.



*Reverse Gradient*



Position the 2 ellipses on top of the tube, change the direction of the gradient of the top ellipse. Make a duplication of the top ellipse, filled with a medium grey color, nudge it down a little bit, position it under the top ellipse (Object>Arrange>Send Backward) to create the rim.

