

Illustrator Print/Cut Guide

The guide details the workflow I used to create Print/Cut Files to send to RIPs like Versaworks and Onyx. This guide was created on a Mac, but the workflow should be the same on a Windows based system.

1) Create Artwork

Create or open the artwork needed to prepare the print/cut files.

For demo purposes, I have created this sample graphic. We will add a cutline around the graphic, so that the final piece will have a white contour around the edges.

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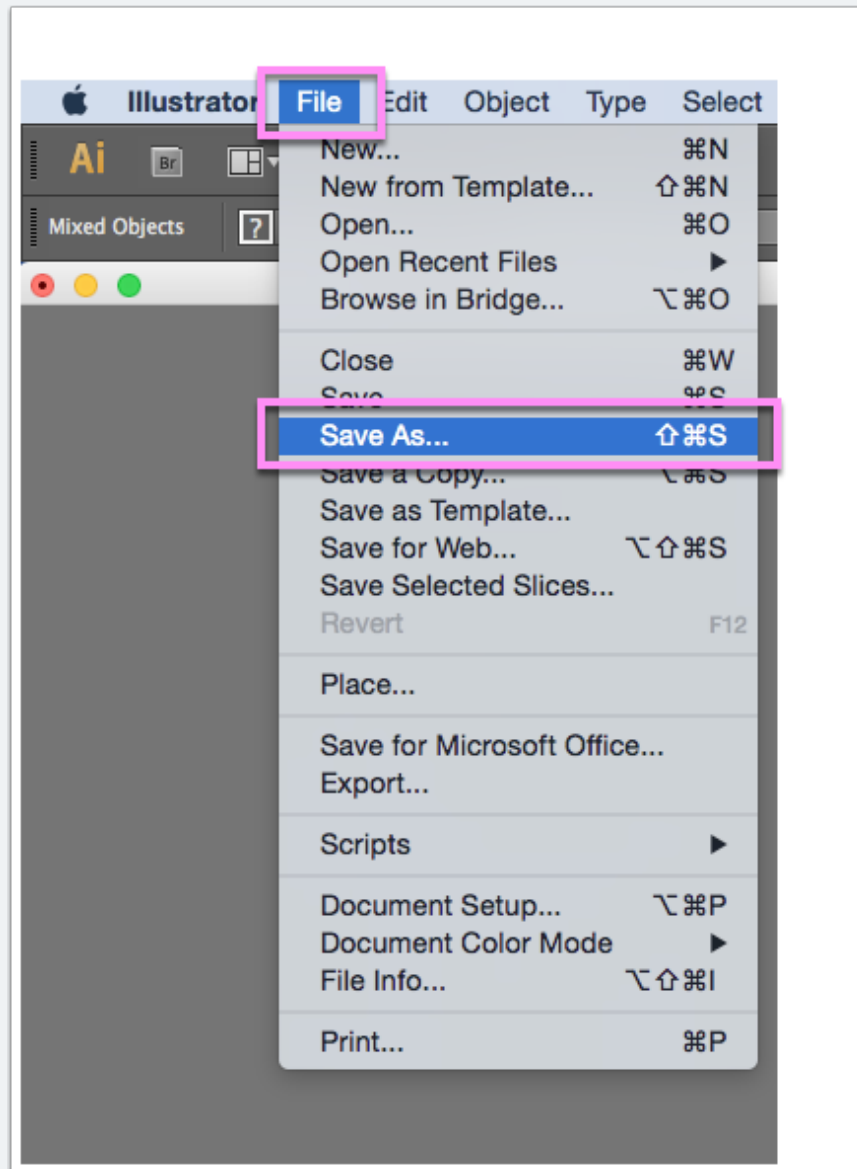
2) Save an Editable Version of your artwork

It is important to save a working copy of your art file - in case you need to come back and change some minor detail later.

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By Editable Version, I mean:

- Fonts have not been converted to outlines
- Transparencies and raster artwork has not been flattened.



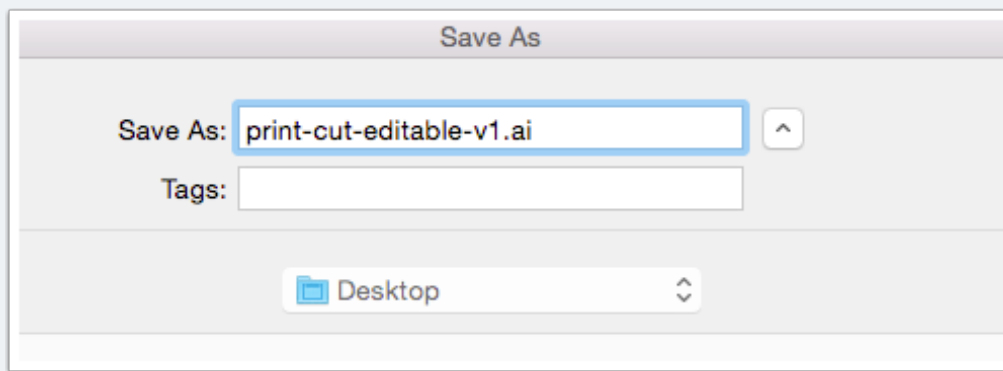
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Save the file

When saving the file I like to be descriptive as possible. This helps when trying to locate the correct file when I need it later.

When I'm saving a working file, I typically use the following format

projectname-EDITABLE-version#.ai

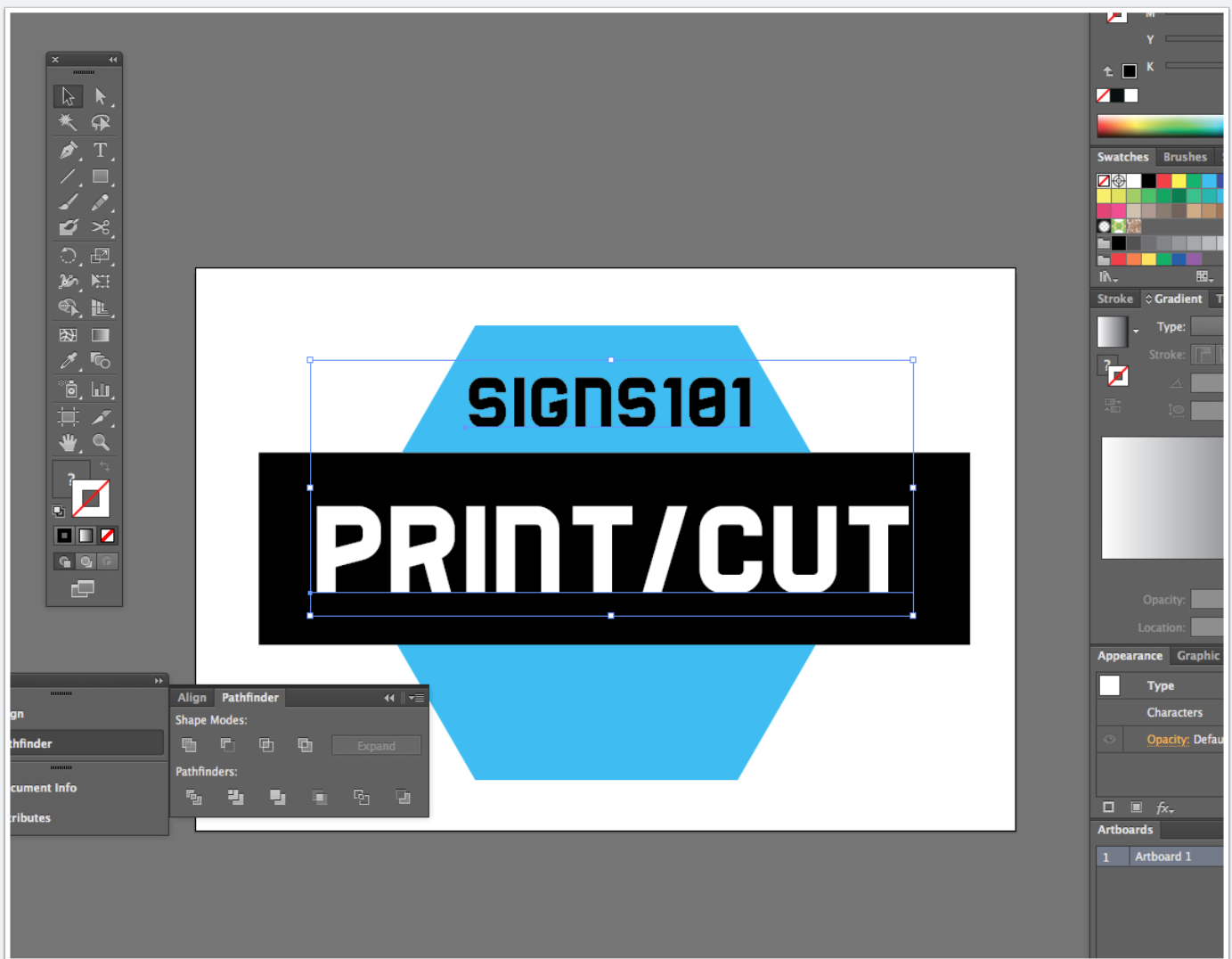


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3) Convert text to outlines

I always recommend to convert all type to outlines when preparing files for print/cut operations.

Select all type in your artwork.



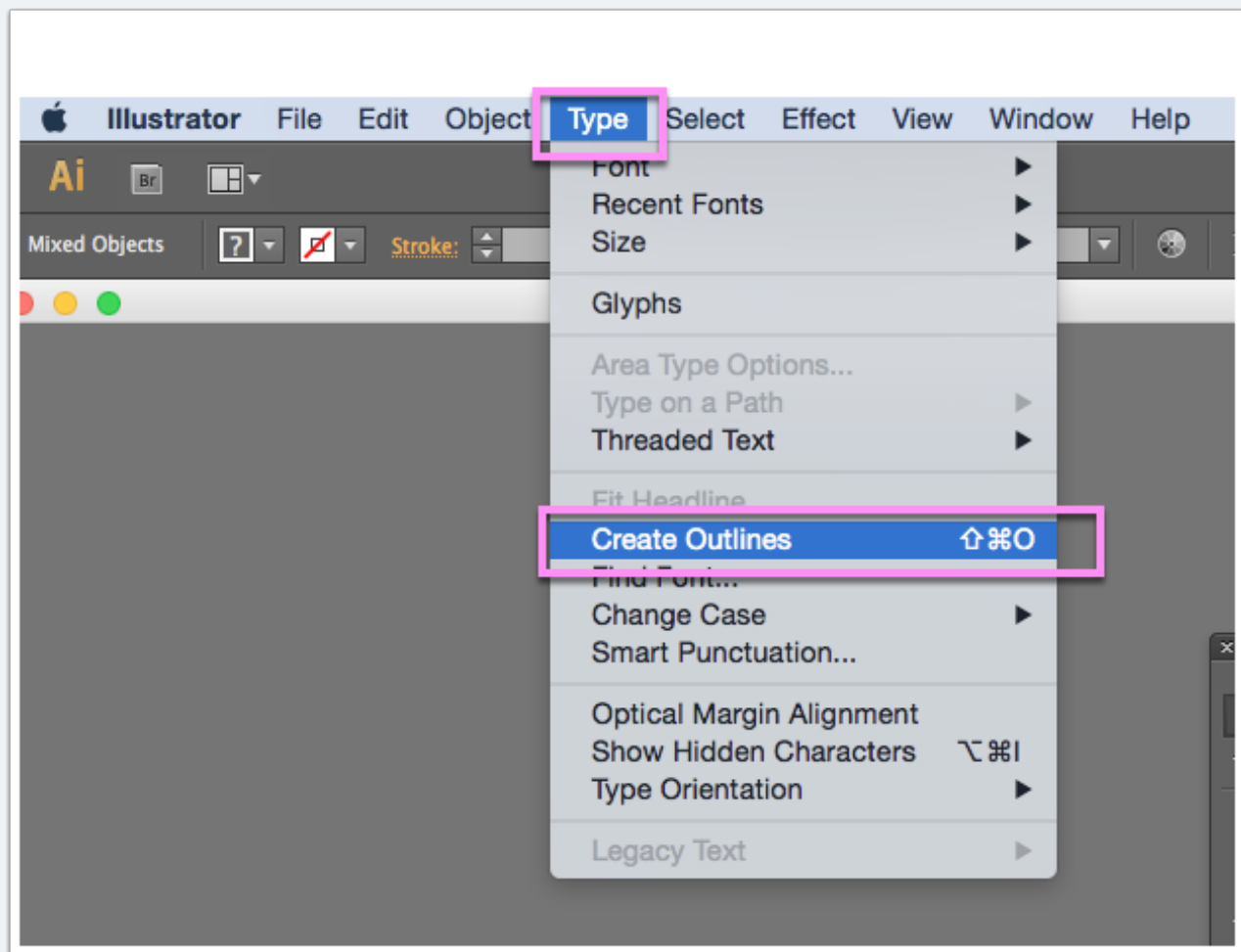
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Type > Create Outlines

In the top menu:

Goto Type > Create Outlines

All type you have selected will converted to vector outlines



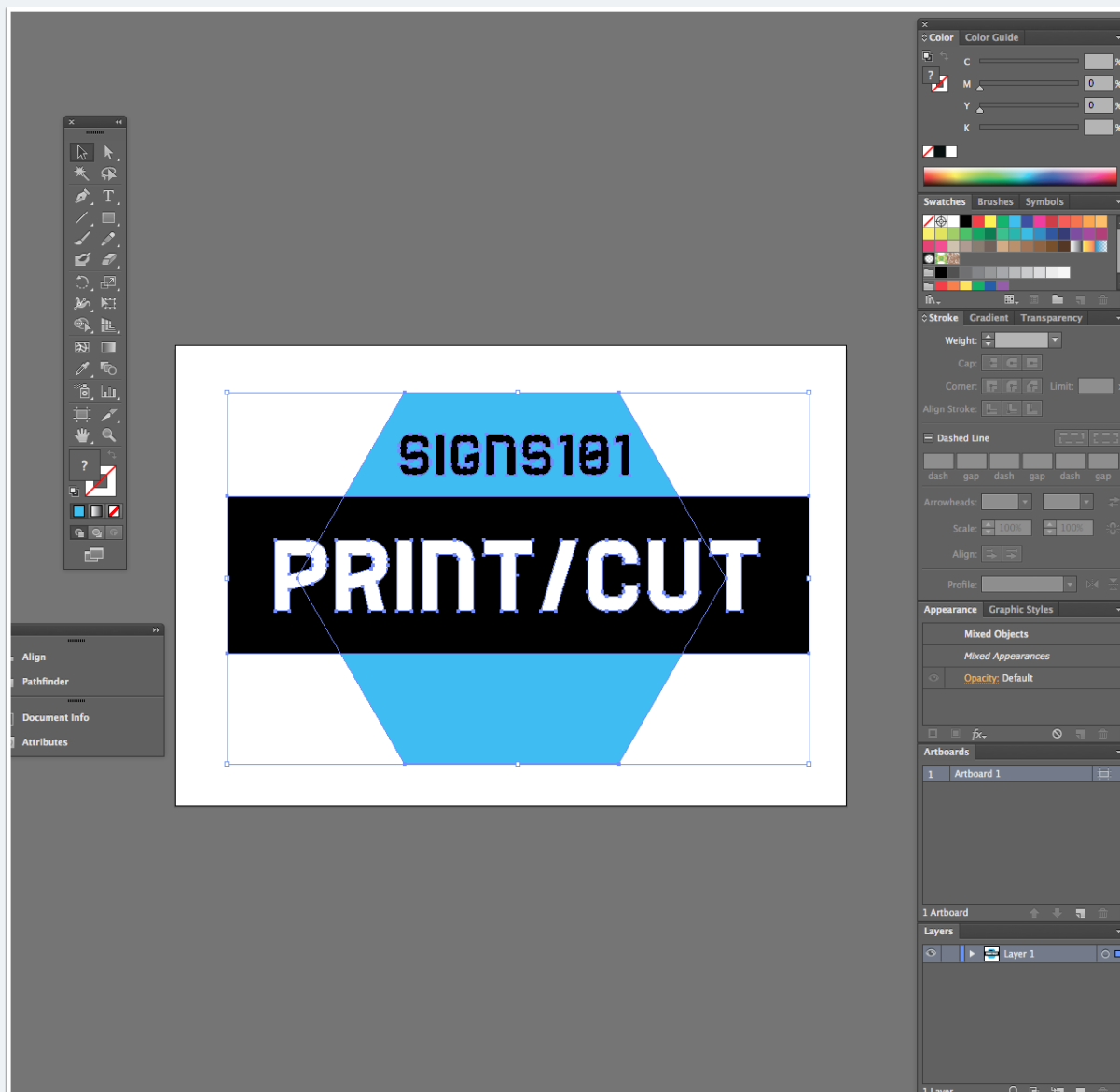
4) Create your Outline

Now, we will create our outline for the graphic. This method is the quickest way I've found to create outlines for artwork.

It takes a few times to get the process down, but after a few days you should be able to fly through the process.

Select your artwork.

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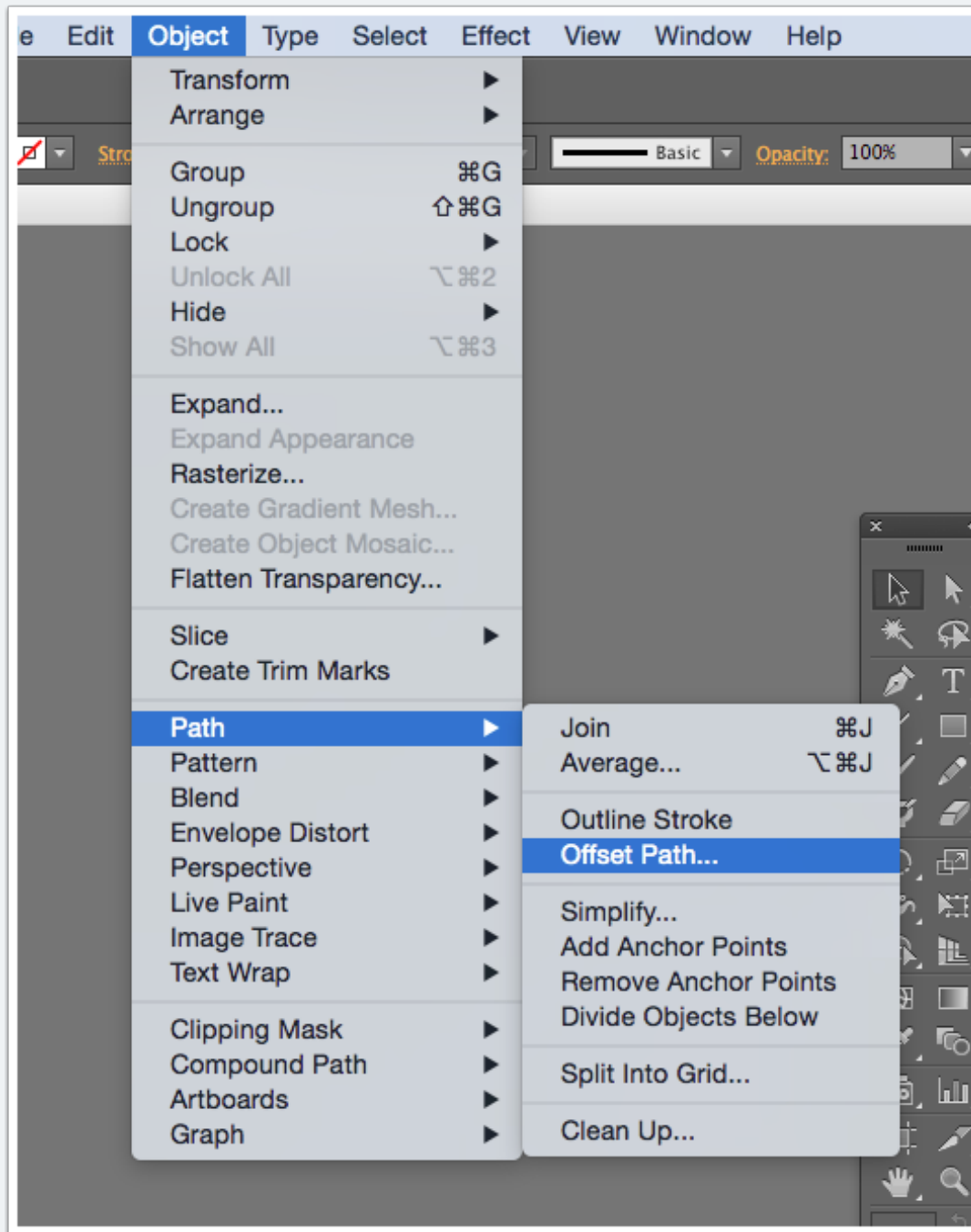
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Object > Offset Path

I use the Offset Path tool in Illustrator to create my cutlines.

With your artwork selected, in the top menu - goto Object > Offset Path

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Offset Path Dialog

In the offset path dialog:

Offset: Set this value to the distance you want between your cutline and your artwork. Use a larger value on longer pieces because sometimes a cutter will skew slightly.

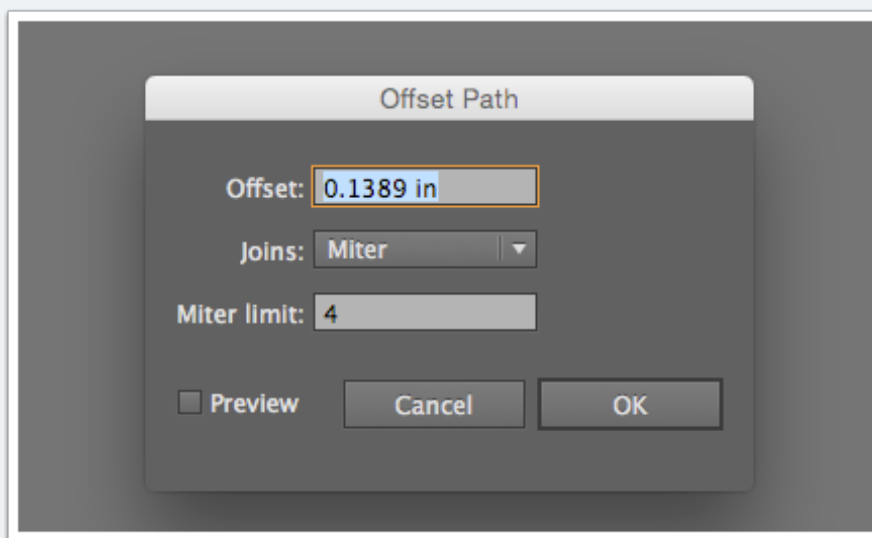
As a guideline:

- Small Decals (<1sq ft) - typically I use an 1/8" (.125in)
- Larger Decals - typically I like to use a 1/4" (.25in)

Joins: This setting determines the shape of the joins between anchor points

Miter: use this when sharp, straight edges are needed - (best for larger pieces and simple shapes)

Round: use this when you want rounded edges - (best for smaller pieces and complex shapes)

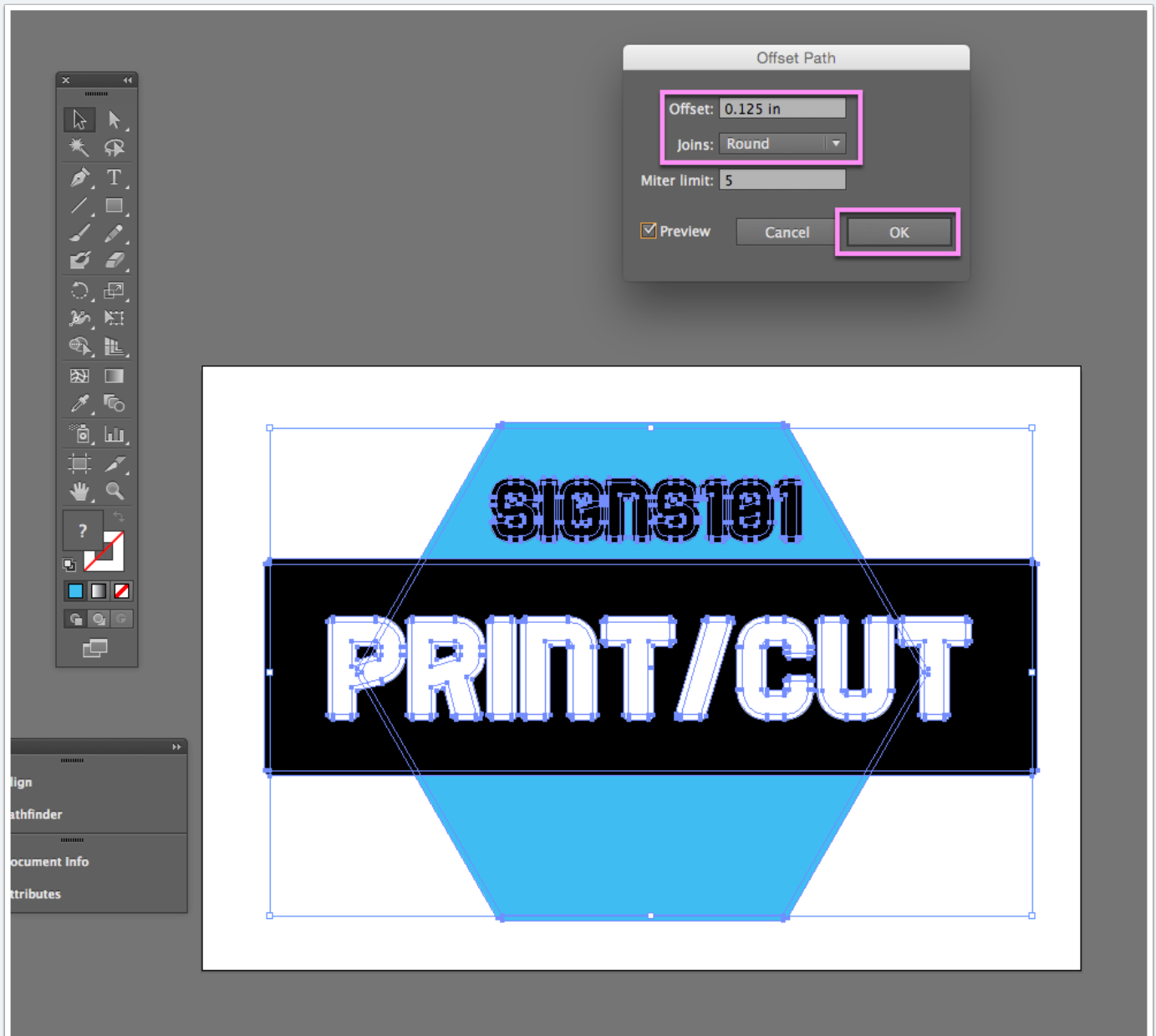


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Example: Offset Path Dialog

Enter your values for Offset and Joins.

Press OK when done.

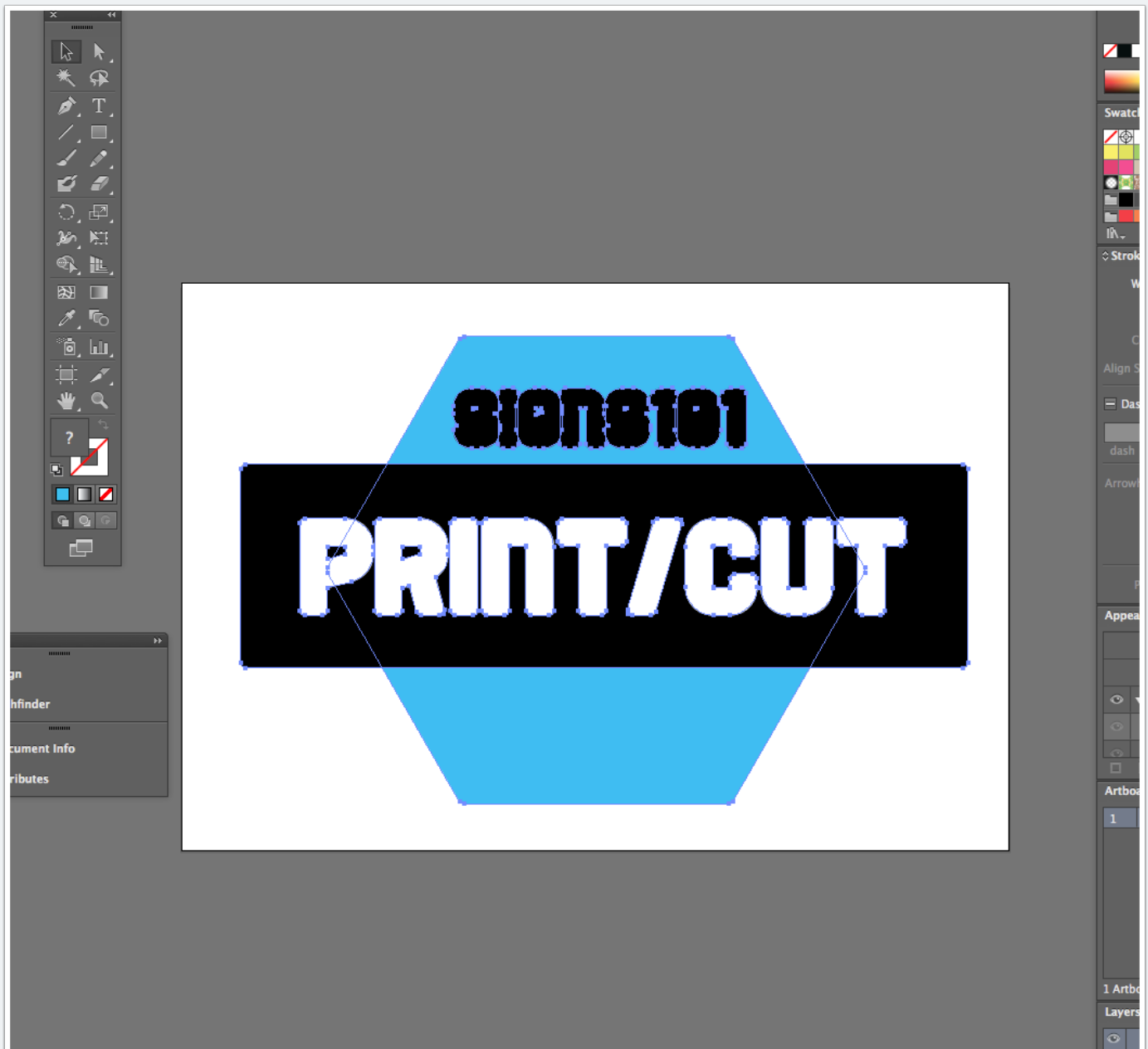


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Offset Path Output

Do not deselect once you have Offset Path.

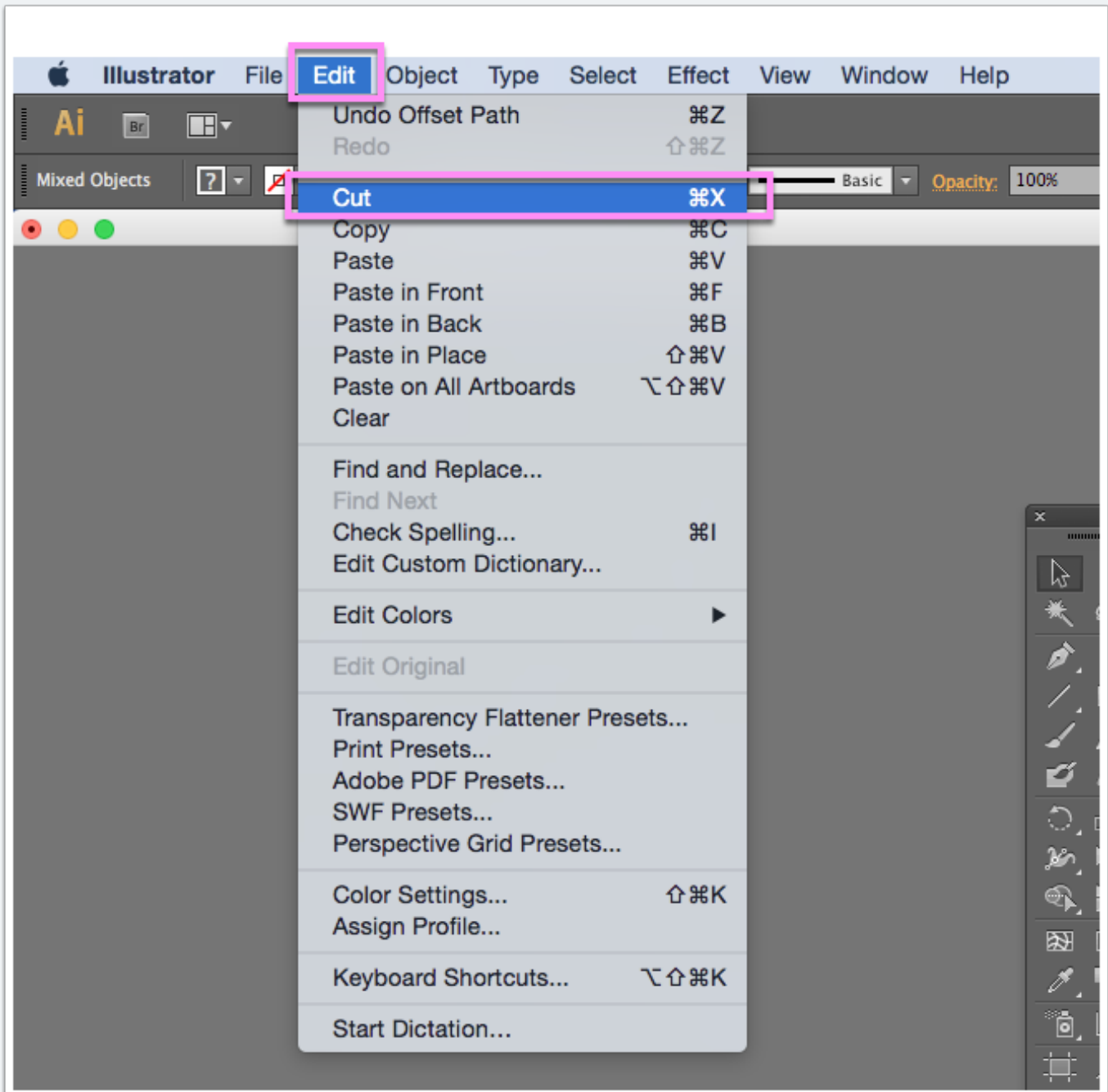
Use the Cut command to cut the output from the artboard. (Ctrl+X or Cmd+X)



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Example: Cut

Go to Edit > Cut

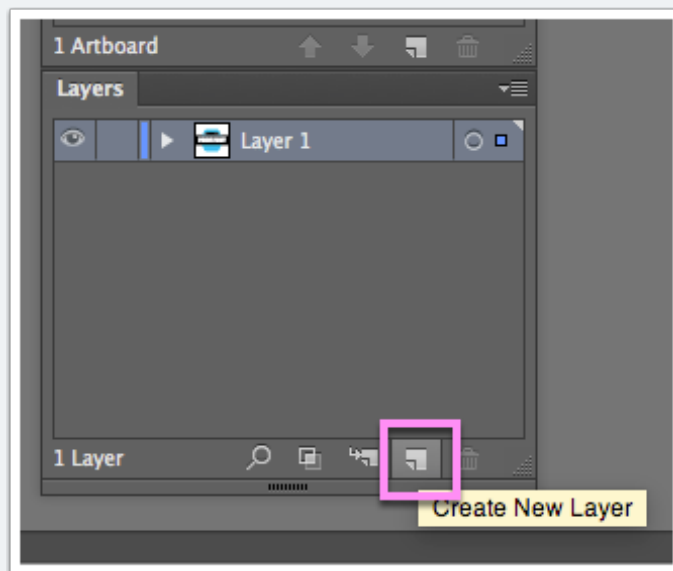


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Create a new layer

After using the cut command, create a New Layer.

In the Layers dialog, click the Create New Layer button.



Name the Layer and Paste the Outline

Rename your new layer to "CutContour" and make sure you have that layer selected.

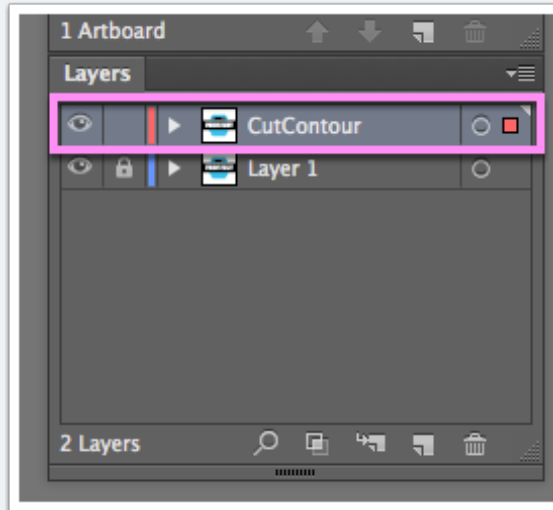
I find it helpful to lock the original layer.

Use the Paste In Front command (Ctrl+F, Cmd+F, or from the top menu: Edit>Paste In Front)

This will paste the outline into the new layer in the same position.

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Do not use the regular Paste command - it will change the position of your cutline.



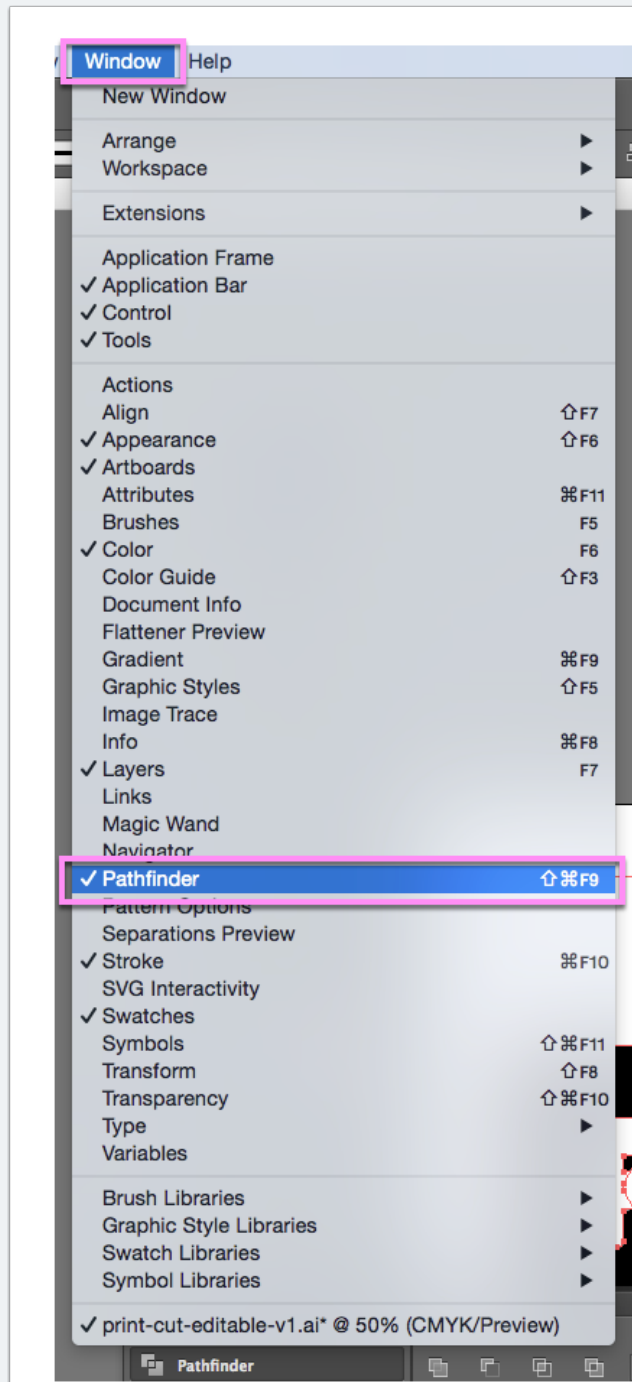
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Open the Pathfinder tool dialog

If you do not have it already open, open the Pathfinder dialog.

Goto Window > Pathfinder

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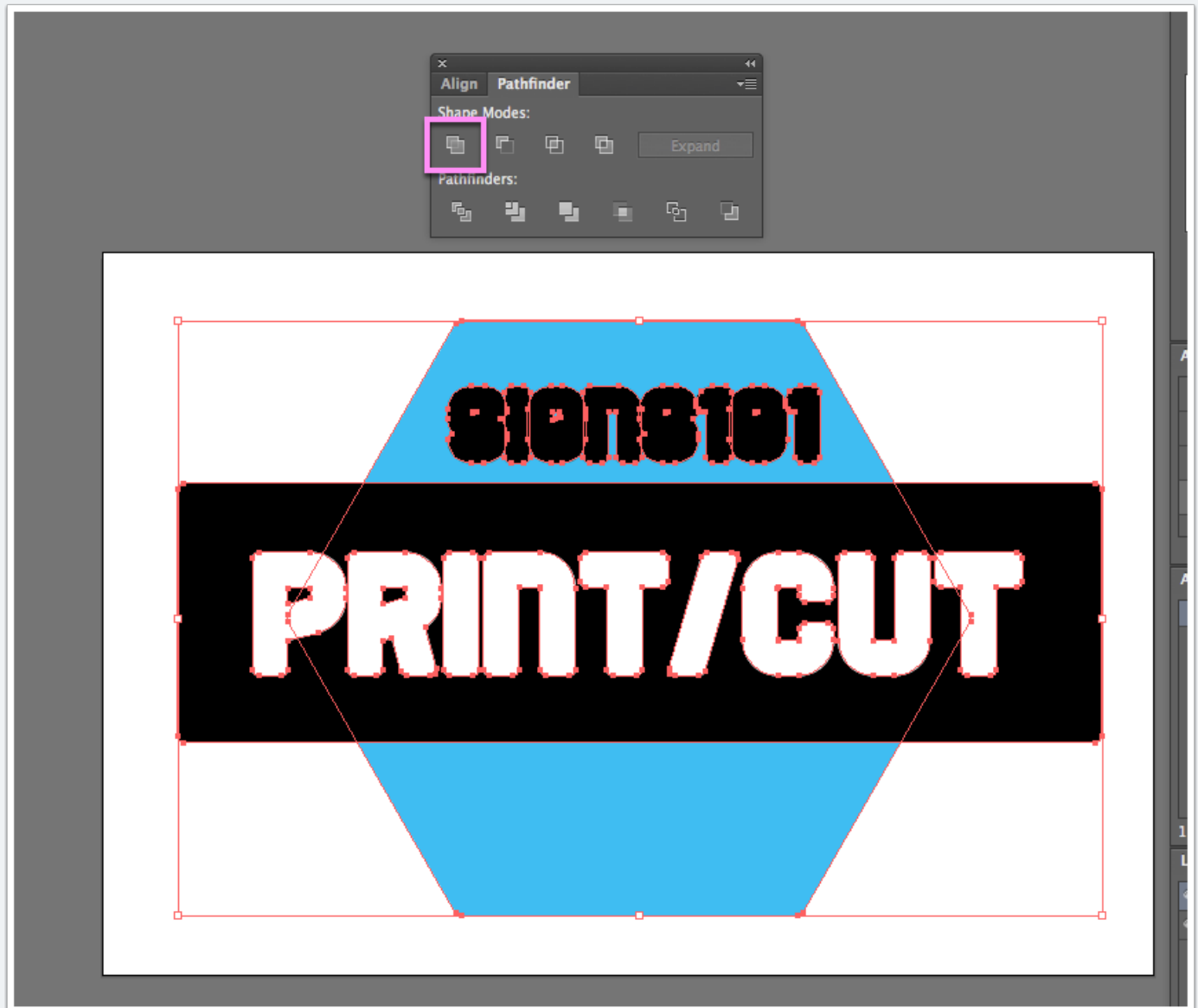
Unite the Shapes

With the Offset Path output selected, click the Unite button in the Pathfinder dialog.

The Unite command is usually the first one on the top left.

This will unite the shapes into one solid shape.

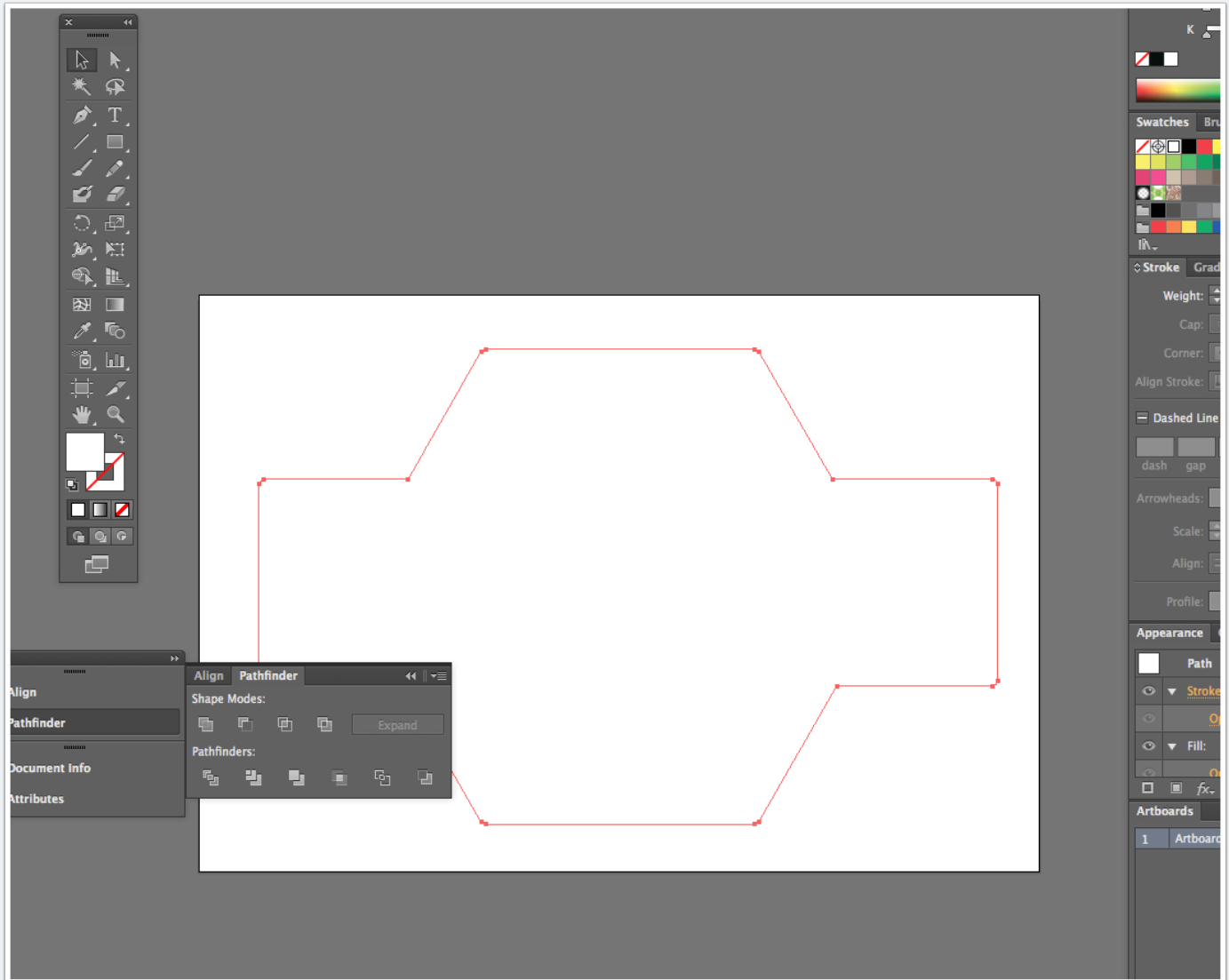
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Example: Unite Command

When done with the unite command, you should have something similar to the screenshot below.

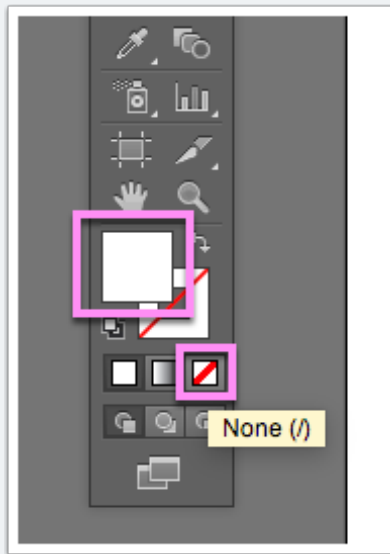


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Remove the fill and Add a Stroke

Remove the fill from the shape the shape and add a stroke.

The weight of the stroke does not matter, nor does the actual color. I recommend you use a color that is bright and not often used in your artwork (like 100% Magenta)

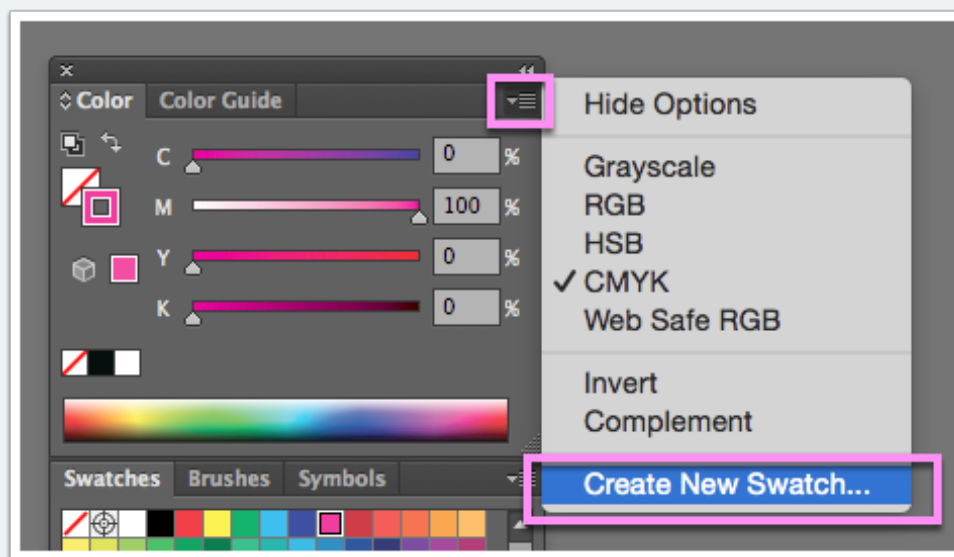


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Create a New Swatch

With the stroke color selected, Create a New Swatch.

In the Color dialog, click the dropdown in the top right and select Create New Swatch



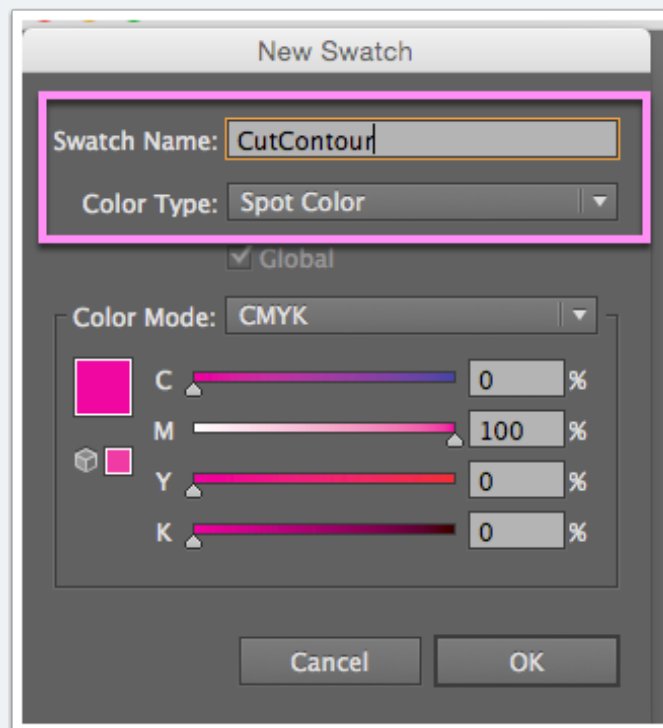
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Name the Swatch "CutContour"

Name the new swatch "CutContour".

Make sure you select Spot Color from the Color Type dropdown.

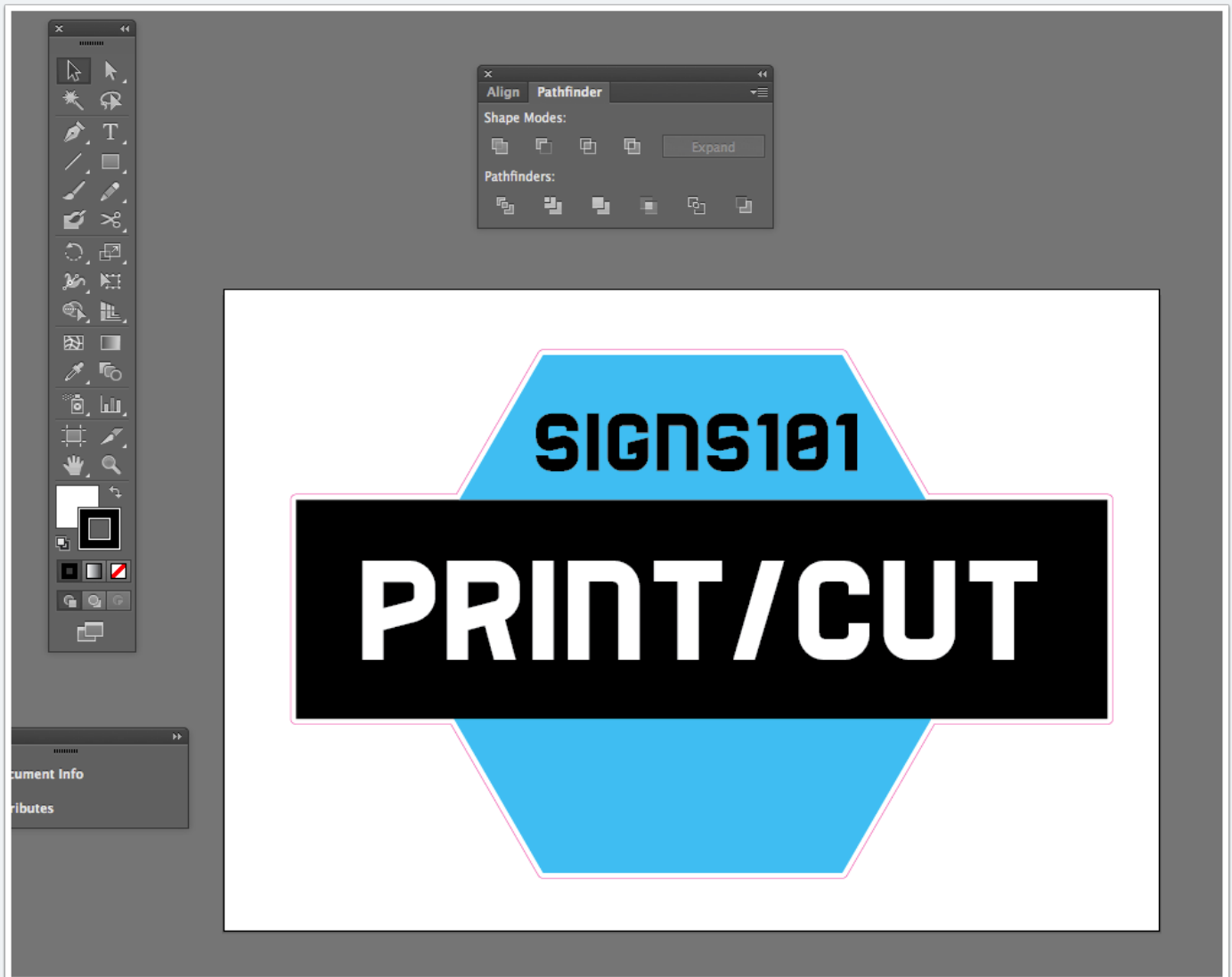
If you do not, Versaworks or Onyx will not pickup the cutline.



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Example: Completed File

Your completed artwork with cutline should look similar to the screenshot below.



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5) Save Your File

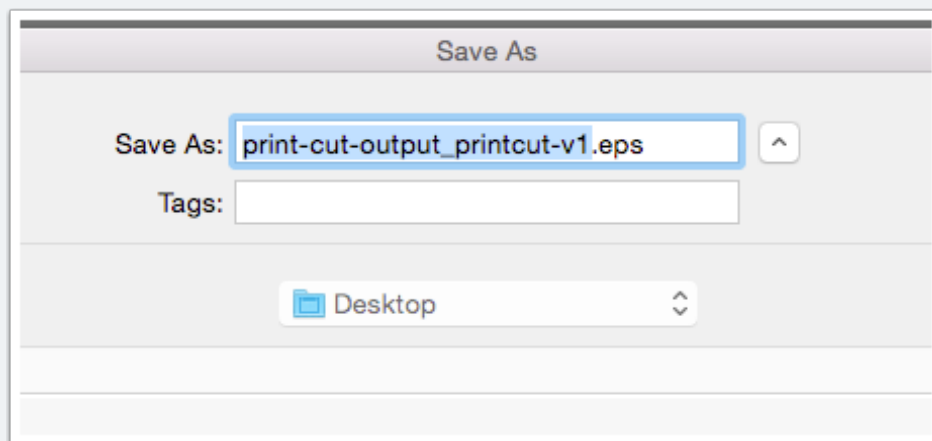
File > Save As

Save your artwork file. Again, it helps to be descriptive here - 5 seconds now could save you five minutes 6 months from now.

When saving output files I typically use the follow convention:

projectname-OUTPUT-PRINTERCUT-version#.eps

This file should now be ready for import into Versaworks or Onyx.



Gradients, Transparencies, and Drop Shadows

Effects like Drop Shadows, Transparencies, and Gradients often times cause issues with your RIP.

Versaworks in particular has many issues with drop shadows and gradients.

To avoid these issues, you must rasterize your artwork before outputting to your RIP.

In this example, you can see we have a combination of all three.

The image of Mario is a transparent png.

The rectangle contains a gradient and also has a drop shadow.

Use the following steps to prepare this image for output.

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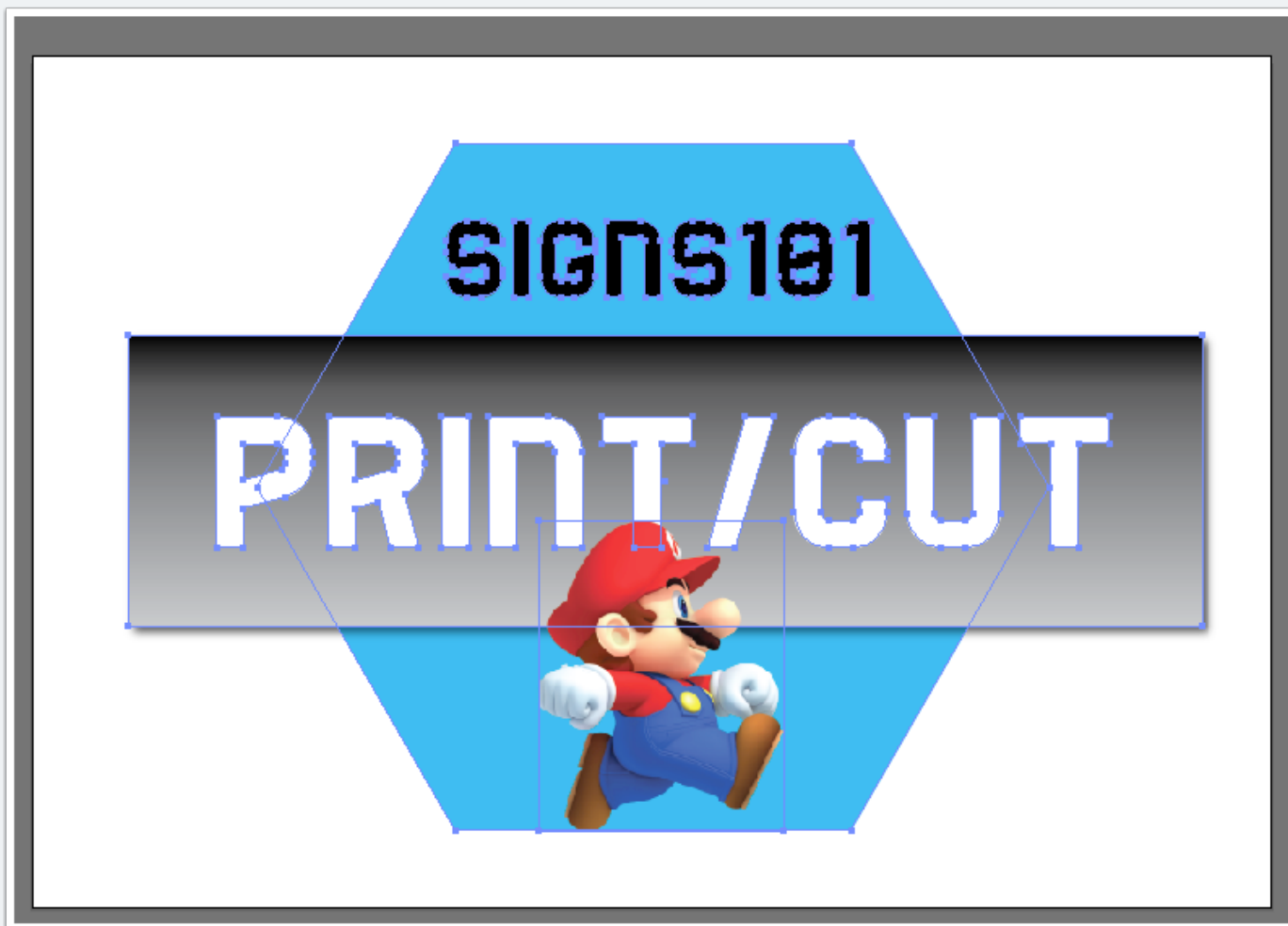
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1) Select all artwork except for your Cutline

This is where it nice to have your cutline on a separate layer.

Select all your artwork - vectors shapes, type, and raster images.

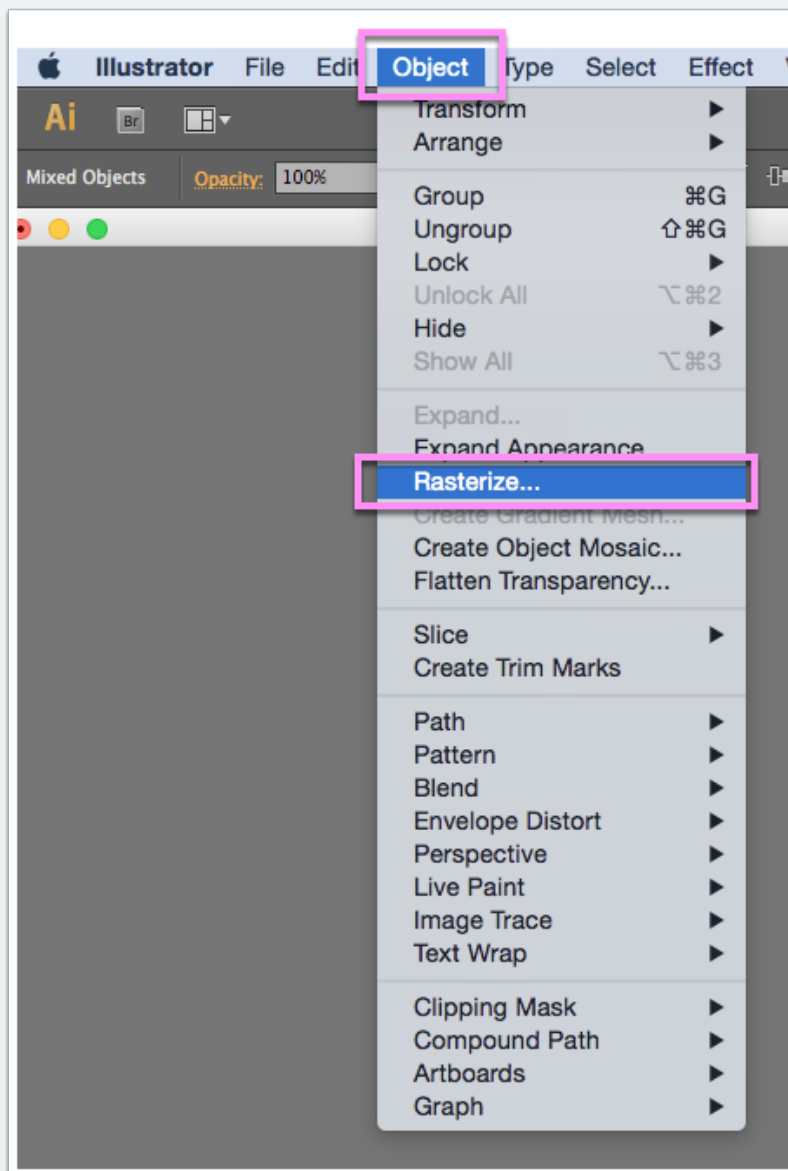
Make sure you don't select your cutline. It needs to remain a vector shape with a stroke named "CutContour".



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2) Rasterize the artwork

With the artwork selected, go to **Object > Rasterize**.



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Rasterize dialog

In the Rasterize dialog, make sure the Color Model is set to CMYK.

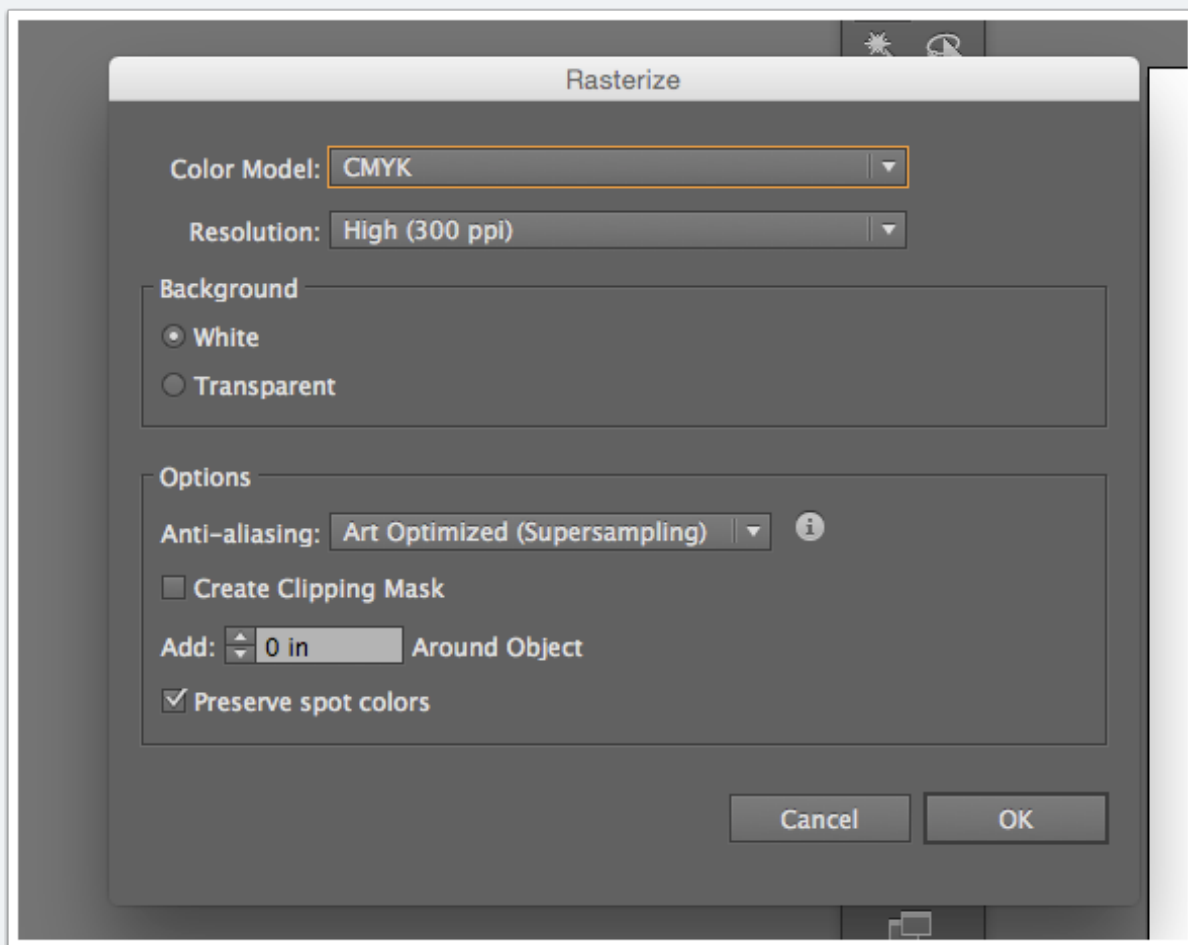
Change the resolution to whatever setting you'd like. Keep in mind the resolution has a direct effect on quality of the print.

For projects on the smaller side, High (300 ppi) is good to use.

Illustrator eats up a lot of resources when you use the Rasterize tool. When you start getting into projects like vehicle graphics that may require large pieces, you may need to use a lower resolution.

It is important to back sure you select "White" as the Background.

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Rasterized artwork

Once you Rasterize the artwork, it will become a single image.



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Add your Outline

Add your outline back into the artwork.

Your completed file should look similar to the screenshot below.



3) Save your file

Save your completed file.

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When saving a flattened file, I typically use the following convention.

projectname-OUTPUT_PRINTCUT-FLATTENED-version#.eps

Your file should now be ready to output to your RIP.

