Preparing customer-provided art for cutting: Part 2

If they don't have the file, re-creating may be the only option

By Jason Fairless

In the last issue, we began to reconstruct a logo we were forced to re-create because the client didn't have the electronic files. "No disk." The best they could do was provide their business card. So we learned how to load fonts into their proper location on both Mac and PC platforms, and then entered the text.

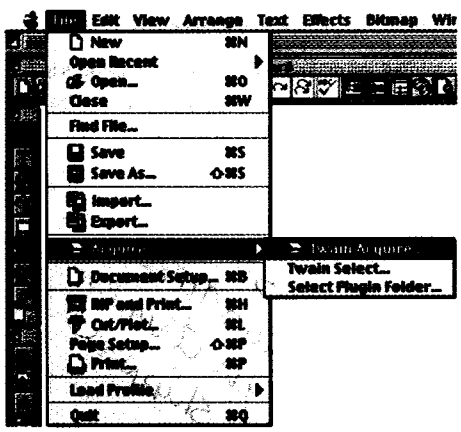
Now we must use the rest of our resources to reproduce the cow's head graphic. The first step is scanning the cow from the business card. Business cards are not what we would consider camera-ready artwork. "Camera ready" is generally a high-quality laser proof printed from the original file. With a proof's sharp edges and corners, we could get a very good scan that requires very little cleanup for cutting.

But here, we don't have that option. So, we will have to use some of our software's (I use FlexiSIGN Pro) line-editing tools to clean up the scan. There are so many scanners and scanner applications; it would be impossible for me to tell you the exact settings to use on yours. But most scanners and their setting options are similar, so you may find seeing my approach helpful.

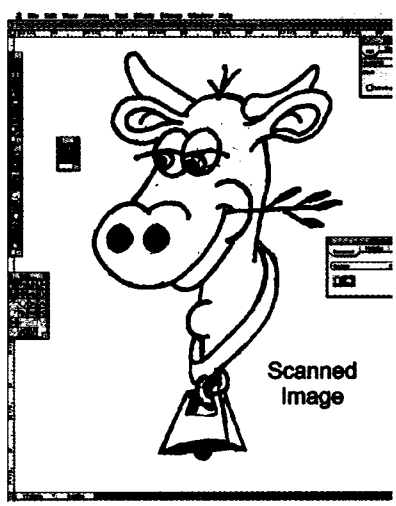
You probably already know how to scan art into your software. If you are just learning to scan and trace artwork, experiment and see what your setup allows you to do. Every computer and scanner is different.

Once scanned, you can Auto Trace the image in FlexiSIGN. Auto Trace is a tool that finds the edges of a bitmap and follows them to make a line or vector drawing that our vinyl cutter can cut. When you scan something, you create a bitmap graphic. A bitmap is an image made up of many dots on a grid.

You can look at a bitmap like an airbrushed image—its edges are fuzzy. We can't cut a bitmap out of vinyl. But, we can turn the bitmap into a line drawing. Line drawings are called vectorized images. Vectorized images can also be scaled up or down with no loss of image quality. Because they are mathematically produced lines, they do not distort when made bigger or smaller. Therefore, any time we can use vector images, we are better off. We can use the same image time after time to meet a customer's need—be it business cards this week or a 5-by-10-ft. sign next week. We just grab a corner of the graphic, make it bigger, and then cut it.



From the file menu, scroll down to *Acquire/Twain Acquire* to start the scanning software.



Evaluate the bitmap image. When we Auto Trace, it helps to know what we are up against so we can set the options to have the least amount of cleanup work possible.

Here are the steps for this process:

- Scan the best quality art you can find into FlexiSIGN.
- Evaluate the image and determine the settings for the Auto Trace function.
- Auto Trace the image.
- Use the line-editing tools to clean up the vectorized drawing.
- Output the graphic on a vinyl cutter/printer.

Auto Trace can be used with any bitmap image, whether it was scanned, came from disk or was copied from a Web site. I usually steer clear of images pulled from a Web site unless they are very basic and easily redrawn.

Web-site images are very low resolution, around 72 pixels per inch, and usually are in a compressed format (like .jpg or .gif), meaning that image quality has been reduced to facilitate faster downloads via the Internet. Do not try to Auto Trace .gif files from the Web. You will only make yourself angry and frustrated.

If you ask a customer for his logo for reproduction and he tells you to pull it off his Web site, stop right there. Explain to the customer that the resolution would not be good enough. I find it is easier to say something to the effect that "using Web-based art is not our policy, and that our policy is either black-and-white camera ready or art supplied via disk...." People tend not to argue when it is policy. Most only want you to get it from the Web site because it's easier for them than looking for the disk.

Many customers get their logos done at places like Kinko's. If the customer has lost their disk, many times you can make a call and get the artwork e-mailed to you. We do this all the time. Think about it like this: the difficulty of our job is in direct proportion to the quality of art we start with. It is a lot easier to make a 15-minute phone call and get art e-mailed to us than to scan garbage and spend three hours goofing around with it—only to have a very poor image in the end.

Don't jump the gun. Work smart, not hard. Exhaust all options before setting out to do the near impossible. Poor art is a pain to clean up. It can sometimes take hours, and those hours translate into cost. Customers are not generally fans of higher cost. Do everything you can to avoid excessive art time.

Scanning and evaluating art for cutting

1. Be sure the scanner glass is clean. Place the object to be scanned face down on the scanner glass, as straight as possible. It is always better when an image is level.

2. From the file menu, scroll down to *Acquire/Twain Acquire* to start the scanning software.

3. Most scanners let you preview the image with a quick, low-resolution initial scan so you can select the exact area you wish to scan.

4. Most scanning software allows you to set the type of scan that you want. Choose black-and-white line art.

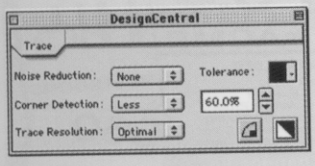
5. Most scanners also allow you to adjust the dpi settings for the scan. For an average size piece of art, 150 dpi should be adequate. For smaller, more detailed art, increase the dpi to

Auto tracing can keep manual cleanup to a minimum

Let's Auto Trace the scanned image. In FlexiSIGN Pro, the Auto Trace tool looks like the letter Z on the toolbar.

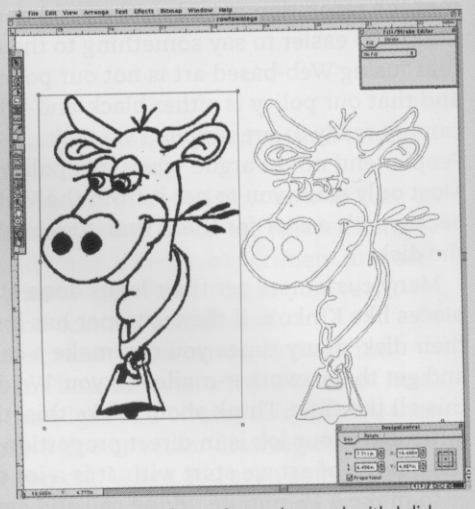
If you click and drag on it, you will see that it contains several tools. We're using the first one, Auto Trace. We won't worry about the functions of the others, but the second is Centerline Trace, the third is Color Trace and the last is Picture Cut.

Click the Auto Trace tool then look at Design Central. Here's where we'll set the options for the Auto Trace tool.



I click and drag a box around the entire bitmap and release the mouse. Depending on the complexity of the bitmap and the speed of your computer, Auto Tracing should take only a minute or two. If your computer is slow, don't go banging around on the keyboard while the machine is thinking. It will probably crash.

After Auto Tracing, the line drawing is highlighted in red because it is automatically selected.



To see if the trace is good enough to work with, I click and drag the line drawing off to the side and take a close look at it.

get a better scan with more detail. In our case, I am going to scan at 250 dpi because I am scanning a business card. I need all the image detail I can get.

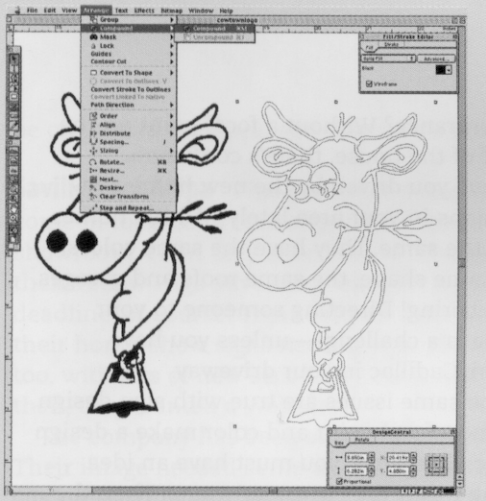
6. Scan the image. In FlexiSIGN, the cursor now has a dotted outline box attached to it. Click in the drawing area where you want to drop the image. Now save the file so we don't have to rescan if the computer crashes. Save often. The shortcut for saving a file on the PC is <Ctrl>+S or, on the Mac, Apple key+S.

7. Evaluate the bitmap image. When we Auto Trace, it helps to know what we are up against so we can set the options to have the least amount of cleanup work possible. There are three important factors:

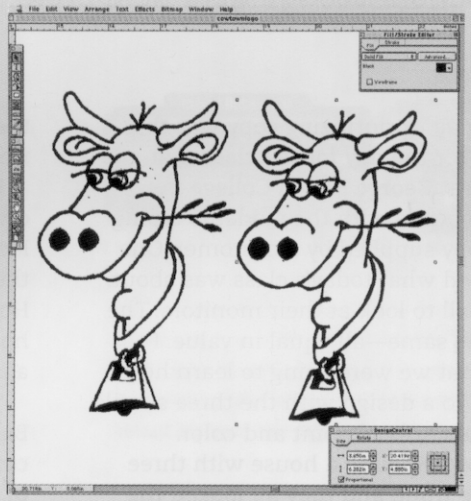
- Do the edges look smooth or jagged and rough? The object is to set up the Auto Trace tool to where it improves the image, meaning less work for us.
- Does the object have round or sharp corners? The cow graphic we are working with is a cartoon. By nature, cartoons do not have many sharp corners. Text, however, does have sharp corners.
- Is there a lot of excess "noise?" If there are lots of little dots floating around the edges of the lines in an illustration, that's noise!

size and slowing the computer. Too much tolerance causes the final trace to be very loose and gives poor final image quality. Try tracing at different tolerance levels until you achieve the desired results. A little experimentation can pay off in a big savings in cleanup time.

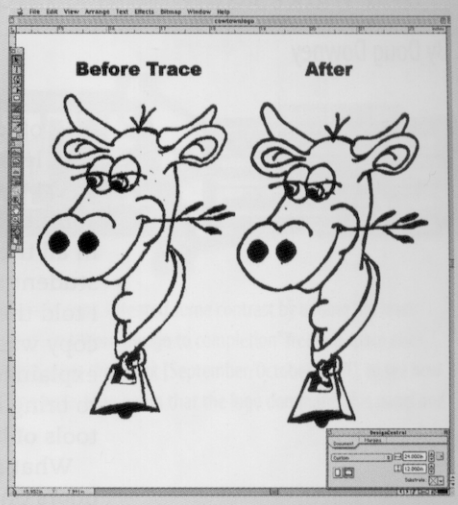
Here are the Auto Trace settings that gave me the best results in this example: Tolerance = 60 percent; Noise reduction = None; Corner detection = Less; Trace resolution = Optimal; Corner style = rounded. I traced the image three times to get the results I wanted.—*J.F.*



If I feel it could be better, I simply delete it and retrace with new settings. Otherwise, I go to the Arrange menu and select *Make Compound*. This compounds all of the traced lines together and makes the traced drawing look like the bitmap.



If we want to change colors or create multicolor designs, we simply *Uncompound* the drawing, select the individual pieces and assign the desired color to them. We'll cover this in the next issue.



Notice that on the before-and-after shots of the cow head, the traced image is actually better than the original scanned image. That's the goal: to let the machine do the majority of the work for you. That makes the final cleanup a snap. I traced this image three times before getting the desired result.

To retrace the image, just *Undo* back to the point before tracing, change your settings and try again. I usually do my first trace at 25-percent to 50-percent tolerance. Then I raise or lower the tolerance to suit the art I am tracing.

The Auto Trace function uses what we call intuitive scales to set the options for how it will trace an image. Intuitive means that it goes by feel. There are no prescribed formulas for perfection, and you may have to perform the operation several times before getting the desired results. Don't be afraid to try it again. Many people say they've tried Auto Trace and it doesn't work. It does. It just takes a little experimentation to make it work.

Let's Auto Trace the scanned image. The Auto Trace tool looks like the letter Z on the toolbar. If you click and drag on it, you will see that it contains several tools. Here we won't worry about the functions of the others, but I will tell you their names. We're using Auto Trace. The second is Centerline Trace. The third is Color Trace. The fourth is Picture Cut.

In the next issue, we'll cover using line-editing tools to cleanup the art we have scanned and traced. We will then add color and create the rest of the design using the drawing tools. •SC

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There's more on www.signcraft.com

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