

Step-by-step: Quick vinyl sign

by Mike and Darla Jackson

Quick, basic signs are a staple in many shops. Often they can be the most profitable projects—providing you can get them sold, produced and out the door without a lot of glitches.

When selling, I like to give three prices for three versions of the sign—basic, mid-range, and custom. This lets the customer determine the budget on a project. The project shown here—a 32-by-

44-in. sign—would fall in the middle price range for a nice, clean project. It could easily have been a more simple layout, and it would have been equally easy to make it a more complex job.

This type of project requires a good, easy-to-read letter style with good contrast. There was no need to get too fancy. Finding the graphic quickly in my clip art collection was a plus and would con-

tribute to good profits on the job. Conversely, spending a long time looking for just the right image (or having to develop it from scratch if you can't find one) can drain all the profits.

The concept for the basic layout was influenced by the type and size of equipment we have to work with. Unless absolutely necessary, I would not have wanted to split the fireman graphic with a panel or cut line, so I made sure he would fit on the film during the design process.

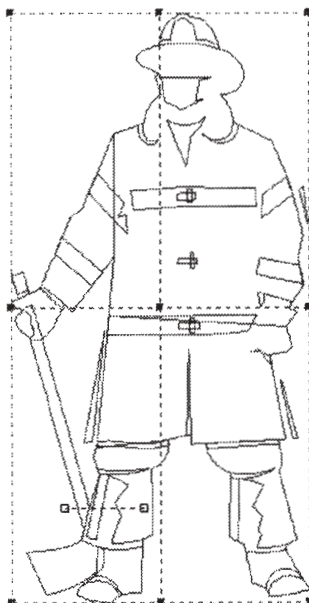
Creating the layout

Once I found the piece of clip art I wanted, I had to convert it into something that my plotter could cut. This piece, like many standard images, needed some work. I imported the design into Photoshop™ and saved it as a TIF at 600 dpi. Then I imported it into Gerber's Graphix Advantage Composer 6.2. I used the built-in raster-to-vector utility to convert the bitmaps to cuttable vectors, then deleted the bitmap. This step took about five minutes.

I have used Graphix Advantage™ software for quite a while and know it pretty well, so this is where I prefer to design. For this project, I set up the panel to be the exact size and placed it at the "origin" or 0,0. This allowed me



I imported the clip art image into Photoshop and saved it as a TIF at 600 dpi.



I used the Graphix Advantage™ raster-to-vector utility to make it ready to cut.



The lettering and graphics were "nested" in Composer to conserve vinyl before being sent to the plotter. Here are the black graphics ready to cut.

to reference that location later for vinyl application.

I had a good idea of what the design would look like in my head. I placed a vertical guideline in the center of the panel, knowing it would come in handy over and over as I created this design. I used the “snap to grid” command to get the vertical guideline in the exact position, then used the “snap to guideline” commands to make sure text and elements landed exactly in the center of the panel when I wanted them to go there.

I also placed a horizontal guideline on the screen to help me position and work with the circle. Knowing where the center of the circle was came in handy several times, including determining the radius of the text which was placed on the arc.

It took roughly 15 minutes to complete this design once the fireman was converted to outlines. This included a few minor changes to the layout and a couple of different letter style decisions. Once the design was created, I went back and re-created it in less than six minutes. That’s about how long it would take if I wasn’t taking notes for this article at the same time!

Preparing the image for cutting

While there are many ways of getting the parts of a design to a plotter, I often like to nest certain colors together and send them to the plotter at one time. This saves a lot of vinyl and helps get the job out the door quicker. Knowing that I have a plotter which can cut 12-in.-tall areas (by almost unlimited length), I dragged out a couple of horizontal guidelines that were 12-in. apart. I made a copy of the entire layout and pasted that copy to the right of the original graphic. This new image was used to create the nested groups.

When nesting, I always try to keep as many groups together, but I will break them apart if it saves a noticeable amount of materials. Knowing that I would do all the text and the fireman graphic in black, those parts were nested into one long strip. I did the same with the maroon copy, but I did have to slice the circle into two parts. I used the software to slice the circle

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so that I would have a small overlap when the pieces were recombined on the panel. I also created a group of stripes which were the same width as the inset pinstripe in the design. This nesting procedure took just under 10 minutes.

Time to cut film

Normally I would put the black vinyl in the plotter and get the cutting started while I nested the other colors. I didn't do it on this project so I could keep better track

of the time involved. I selected the black group and sent it to the plotter, then selected the maroon parts and had them ready for cutting as soon as the black was finished. The cutting time for all the letters was 10 minutes on our GSP SuperSprint™.

Again, we would ordinarily start weeding the black as soon as it came out of the plotter, but we waited so we could time the step. Darla weeded the letters in 11 minutes while I took the photos

and made notes for the article.

Layout the panel for easy application

We laid the panel down flat so that Darla could work on it while I took the photos. After cleaning the surface, we drew all the layout lines using a blue Stabilo pencil. We sometimes snap them with a blue chalk line. On the monitor, it was easy for me to see how far off the bottom of the sign each line of text or each part of the



1. Weeding goes quickly, using the tip of the No. 11 X-acto to pick up the film where necessary.



2. Centerlines on the panel and graphics speed application. Guidelines were drawn with a Stabilo pencil.



3. A picture framer's matting combination square is used to lay out corners and borders.



5. Folding the line of copy then creasing it marks the centerline quickly.



6. After matching centerlines, Darla positions the bottoms of letters on the guideline.



7. After application, the masking is peeled back at 45 degrees, flush with the surface.

graphics would be located. By dragging a guideline down from the rulers, I could watch the status bar to get a reading.

On some projects I print out a hard copy on the laser printer and mark all the measurements, but on this project and many others, I just call them out to Darla and she marks them on the panel. On some jobs, we even make a small note about which line of text will go on the mark. This effort took just less than 10 minutes. For the



4. Transfer tape is applied to the vinyl, leaving the bottom $\frac{1}{16}$ in. of the letters exposed.



8. For larger graphics the vinyl is masked, lifted, then reapplied to the backing paper so the adhesive across the bottom 3 in. of the vinyl is exposed. This makes it easier to position during application. Note bottom guidelines already drawn on the panel.

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inset border, we use a special “combination square” which we bought at a frame shop. It has a “T” crossbar at the end and makes border layouts easier and faster.

With a little design “pre-planning”, I am able to determine the exact location of any line of text or graphic. When it comes time to apply the vinyl, there is absolutely no guesswork involved. While this design was all centered, many designs require knowing how far

from the left or right border a graphic or line of text needs to be applied. Sometimes, that pre-planning involves determining where a seam will hit on a couple of panels and then adjusting the layout slightly to help blend the seam into the design. Instead of a line of copy being split down the middle, I slide it up or down while creating the layout on the screen, so that text will sit right on the seam with only descenders having to be split.

Other times, a line or stripe can run along the seam.

Ready for vinyl

We used the dry application method on this project. When applying the application tape to most lines of copy, we allow a fraction of the bottoms of the letters to show. Once the copy is removed from the backing paper, we fold the strip to find the center and crease the tape at that point.



9. The bottom portion of the lettering is applied to the panel and squeegeed, creating a hinge for installation.



10. Next, the top section is lifted, the liner is removed, then the vinyl squeegeed.



11. The stripes are applied by hand with no application tape, as are the outside borders.



13. The fireman image and the two halves of the circle were also applied using the bottom hinge method.



14. A modified yardstick compass carrying a Stabilo is used to mark the radius of arc using measurements from the design on the screen.



15. Note how the lettering was nested on vinyl to conserve material.

With the center line and baseline already on the panel, small lines of copy go on in a jiffy.

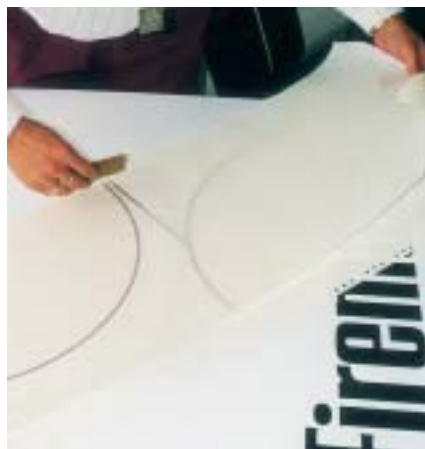
For larger pieces, we usually measure the piece and put a small mark on the transfer tape at the center. We mask the film, remove it from the backing paper, then we put it right back down on the backing—leaving about 3 in. of the vinyl and tape off the bottom edge of the backing paper. This bottom edge will be applied first

to create a “hinge” to install the rest of the graphic. Using this technique, we are able to slide the large graphic around without much worry about it sticking in the wrong place—especially when you lift up just a bit on the “ready” part.

Once positioned correctly, we squeegee the bottom portion down. From this point, we lift up and remove the rest of the backing sheet and finish applying the top

portion with a squeegee. We used this technique on the large copy, the two halves of the circle, and fireman graphic.

To establish the radius of the arced text, I went back to the design. In this case, I used the “Smart Edit” feature of the software to determine the distance that I actually used. I could have also used the “measure tool” to determine the distance. I used a makeshift yardstick compass with



12. The two halves of the circle are applied next, again working from centerlines.



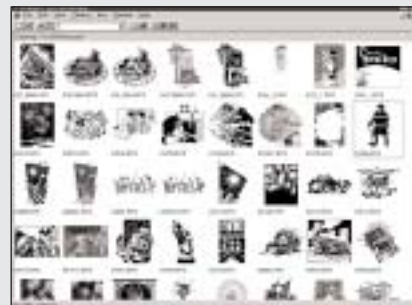
16. The first section of arced text was applied at the center of arc over the H, then the other section was applied.

Simplify your search for the perfect image

So you now have a “gazillion” pieces of graphic clip art. So what? Can you find what you need when you need it? For most of us the answer is probably either “No” or “Not easily”. To get the most out of your clip art library, you need a way to search for images by topic.

There may be several programs that can handle this job, but the one I have been using lately is called “Portfolio” by Extensis (Version 3). This is a revamped version of their program “Fetch”, which was previously available for Macintosh only. The new version of Portfolio comes on a multi-platform CD which allows the user to load it on either the Mac or PC.

The program allows you (or clip art suppliers) to make catalogs of images which store a small graphic, information about the file’s location, and several descriptive “keywords” that you can search on later. You can drag and drop images or entire folders into the program, and it creates the small thumbnails that you can preview. Once created you can add or modify the key-



Here’s a section of the results of searching for “Fire” using Portfolio.

words to suit your needs. Some clip art suppliers, such as Dynamic Graphics (Peoria, IL), create the catalogs for you—complete with generous keywords—and ship them with the images that you buy.

Once a catalog is opened, you can view all the images in the catalog or search for images, using the special keywords. For this project, I typed in “fireman,” and then “fire,” to bring up a lot of different images with this theme. Once I chose one, the program told me which disk the image was stored on, and I easily found it.

Portfolio will convert existing (Mac) Fetch catalogs to its native format. That new catalog can then be read by either Mac or PC versions. PC catalogs can also be read by the Mac counterpart. □

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17. The vinyl stripes are overlapped at corners, then trimmed with an X-acto knife.



The sign took 70 minutes from start to finish.

a Stabilo pencil clamped to one end to mark the bottom of the arced text as shown in the photo.

Since the design had been nested to use the minimum amount of materials, and I knew that I wasn't going to try to apply the entire arced text at once, I referred to the original design to find the center of the arc and applied that part first over the center line. The text of the remaining arced parts were done next.

The inset pinstripes for the border were simply pulled from the sheet and applied directly to the panel without application tape. They overlapped at the corners and were trimmed square with an X-acto knife. When completed, the layout lines were removed with window cleaner and a paper towel. Application of the vinyl took roughly 20 minutes for one person. (I just took the pictures!)

A 70-minute project

Once the panel was ready, this project took approximately 70 minutes to design, cut and apply. Without the notes, photos, and the extra effort required in an article, I might slice off a few more minutes, but distractions are common in day-to-day sign work. Looking back, I'd say that everything went just about as expected. No glitches or surprises!□



After over 23 years of running his own commercial shop,

Mike Jackson and his wife, Darla, now operate Golden Era Studios in Jackson, Wyoming, and do a variety of sign-related projects. His Web site is www.goldenstudios.com. His e-mail address is golden@goldenstudios.com.