MODELING SIGNS FROM PHOTOGRAPHS

1. Geoff shows how he modeled these prototype signs.

Model Railroad Hobbyist | September 2025

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DR. GEOFF BUNZA GENERATES SIGNS FROM FROM OLD PHOTOS...

THIS ARTICLE EXPLAINS HOW I RECREATED TWO SIGNS: VEEDERSBURG GRAIN AND CARDINAL CAFÉ. The signs were poorly photographed, but with Corel Paint Shop Pro (PSP) and Microsoft Power Point I restored them for use in scale models.

I am most comfortable with the two applications mentioned, though equivalents for both are available on the web, some at lower cost, or free. I hope the methods shown here can be applied in other forms.

VEEDERSBURG GRAIN

On the *MRH* forum AndyZ posted a picture of the Veedersburg Grain Mill from his home town, hoping he might get some help how to recreate it for his layout.

I could decipher Veedersburg Grain, but not much else. My first step is almost always to take the "best" photo (in this case the only photo) into PSP, crop the sign, apply Adjust->One Step Photo Fix, magnify the sign in the window on-screen, and see if I can read it [3]. Veedersburg Grain Inc was readable, but not the two logos. I used Google to search for Veedersburg Grain, both text and picture, but no joy.

Google can search for exact and similar pictures, and is sometimes very useful. Fortunately, AndyZ named the ANAFAM logo (American National Feed and Mineral) in his original post and barr_ceo posted a picture of an ANAFAM Feeds pencil in

2. Starting point photo: Veedersburg Grain. *AndyZ's original contribution*

3. Here is the magnified image of the sign from [2]. Unfortunately, the sign was small enough in the original image that attempts to magnify and sharpen the image left the text all but unreadable.

the *MRH* Forum comments, and that nailed-down the logo text in the lower left [4].

AndyZ also indicated the mill was located in Indiana. So I searched for feed mills in all the adjoining states. I found references to "Master Mix" feeds, chicken feed, and hog feed – progress, but none with the same sign.

Since this was from AndyZ's home town back in the 1950s I reverted to my standard search for rare "old stuff" – eBay. I found a rusty old tin sign with the correct logo.

I brought the photo into PSP. The first step was to "flatten" the photo, using the Perspective Correction tool [5].

4. ANAFAM logo as found on a pencil.

5. This is the original cropped photo I found on eBay. Look closely to see the outline with four square dots in the corners. Much of the outline is snug against the edges of the sign, which is how I want it to be for the perspective correction.

I used the selection tool to outline the sign to correct its perspective, making sure that the four square corners of the selection box were as true to the sign as possible. If you make a mistake or slip with your mouse placement, just "Undo" the command, reset the edge outline, and try again.

With a little practice, it works great [6]. For prototype photos, this tool is almost always used. Next crop (trim) the sides for square corners and minimal excess space [7].

My goal was to create a sign in its original, delivered condition, so the faded white needed to be replaced with a true white.

6. New perspective.

7. Cropped photo. The logo on the elevator billboard had no "FEEDS" text underneath, so I didn't need it here.

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This is easy using the PSP's color replacement tool. Photo [8] shows the process.

For color substitution, set the size of the cursor, the background and foreground colors, and the hardness to 99. Use the eyedropper to select the gray/off-white Master Mix background color, and it will appear in the middle upper left color box in the Materials window.

Change to the foreground color by selecting the quarter circle arc, and the gray color will appear in the lower right box. Now use the eye dropper again and select a bright white from the color bars (upper left box).

Go back and select the color replacer from the leftmost menu. Use your mouse to "wipe" over the picture, and you should be able to selectively change areas of the picture from gray to white.

Once you've brightened the logo, use the "paint brush" (selecting black) or the rectangle drawing tool (setting foreground and background colors to black) and fill-in and trim the edges of the logo. Save it as a JPG or PNG picture. Mine wound up being about 680x971 pixels, a size I could work with.

8. Color substitution in PSP.

With a little effort, the cleaned-up Master Mix logo appears as in [9]. The real benefit of starting with the logo is you have a clean sign element that is about the right proportion. Its proportions will be used to determine the size and placement of the entire sign.

Saving a picture like this one as a JPG will preserve its white background. Sometimes this is not good, but we can selectively erase the white background around the logo, and only represent the logo alone by saving it as a PNG file. Learning which file formats preserve different photo elements is valuable.

9. Edges cleaned.


J. Regier

FLESHING OUT THE DIFFERENCES

We thought it worthwhile to illustrate some of the key differences between JPG, PNG, and GIF files as to how they function. Many of the photos you'll encounter online are in JPG format. If you're looking for a logo, however, you may encounter them in PNG or GIF format.

As mentioned, the author's Master Mix logo was in JPG format. I redrew it using "Graphic" on my Mac (any vector illustration and design drawing program such as Adobe Illustrator, Affinity Designer, Libre Office Draw, etc., would work, and would be our recommendation) so I could save it in the above-mentioned formats [10].

Exporting the file as a JPG saves it as a rectangle, with an automatically assigned background of white, with full opacity. Graphics exported in PNG or GIF format will also export a rectangular image, but will automatically assign a transparent background, which can be beneficial if you are using the graphic on a sign that is something other than white. I dropped JPG, PNG, and GIF versions of the graphic onto a blue background in Adobe Photoshop Elements to illustrate [11].

Worth noting is that if you import a PNG or GIF and save it as a JPG, you will replace the transparent background with white, so be sure that's what you want. Conversely, if a JPG is saved as a PNG or GIF, they will maintain whatever portions of the JPG were white, so the image would have to be modified to erase or delete the background.

10. I recreated the Master Mix shield logo in Graphic. To find the font, I uploaded the image file from [9] into the What the Font tool at MyFonts (www.myfonts.com/pages/whatthefont). The shield shape has an infill value of white at 100% opacity. The empty portions of the canvas appear as a grid in the lower corners.

11. The Master Mix image on a blue background, from left to right in JPG, PNG, GIF, and PNG. For the sake of illustration, I set the fill color for the shield shape at far right to white with 50% transparency before exporting, so the blue background shows through.

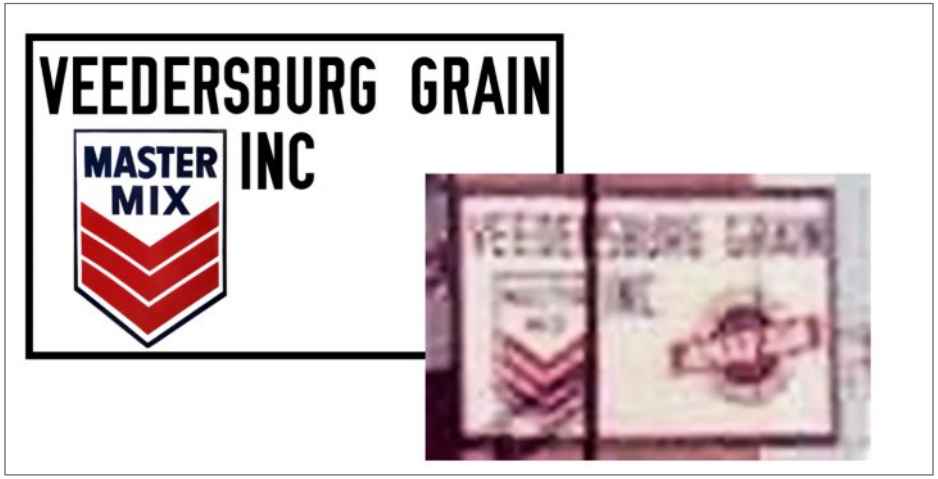
After saving the Master_Mix.jpg file, let's switch to PowerPoint. It has limited photo editing, but has many more editing options for signs.

Open PowerPoint (PP) and insert the Master_Mix.jpg onto a completely blank working "slide." The fully cropped and straightened sign from the original photo becomes the placement guide.

I drew a 6-point (6-pt) black rectangle (specific size at this point not important) that occupied most of a slide in landscape format, and placed the "Veedersburg Grain" text in the rectangle. I searched for a font from the standard list of fonts in PP, using the "V" and "E" as my guide. I found "OPS-DIN" to be a good match.

I tried to match the edges of the logo with the letters in the text, keying off of the prototype sign. This is a tedious and iterative process, matching fonts, size, and the Master Mix logo. Remember that the logo has the best-represented proportions – I used it to key the size and placement of everything else in the sign. The "INC" was added and placed next, using the same font.

12. Master mix in rectangle.



13. Fitting the border rectangle.

The ANAFAM logo remained, and it was a pain. I will go through all the steps I finally found to work.

As usual with text, I start trying to find a usable font, and in this case the font will need to easily lend itself to "outlining" for the logo. Again, after a tedious search I found the "Bahnshrift 60 Bold" font, which looked good for a start.

On a separate blank slide, I placed the ANAFAM text. Selecting the text alone, select (right mouse-click on selected text) format shape and text options. Select White solid fill, and black solid line 2-pt text outline. You should have the text as shown in [14].

Next highlight and select the ANAFAM text, then go to the top Menu->Format->Text Effects->Transform->*abcde* from the lower left bottom selection (the *"abcde"* appears on a slant from lower left to upper right). *Note: you may need to expand the PP window to maximum size to see all the menu picks I described.* If you picked successfully, you should see your ANAFAM text as shown in [15] with the letters inclined rising from left to right.

14. Outlined text with white fill.

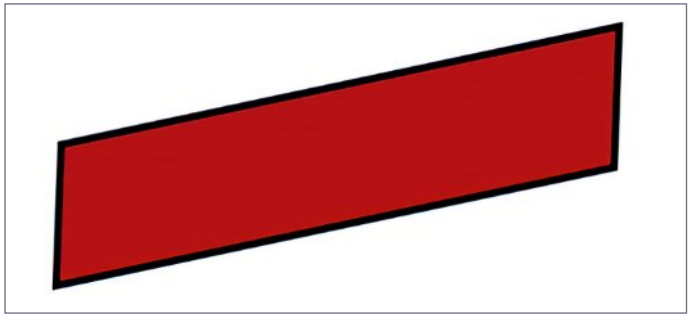
15. Transformed text ready to slant.

Next create a parallelogram big enough to enclose the ANAFAM text, and fill with red [16]. If you copy the Master Mix sign to your working ANAFAM slide (you can reduce the size), you can select the exact same red using the "Eyedropper" selection from the color selector for Fill, and then selecting the red from your original Master Mix photo. Remember when using actual photos for color references that the actual colors can fade and discolor, especially on outdoor signs.

Set the outline color to black, and the thickness to three points. Rotate the red stripe to match the incline of your ANAFAM text, and the completed shape should look like [17].

Now select your red and black parallelogram on its edge, and right-click on the drop-down menu "Send to Back." Next you can move it over the slanted ANAFAM text, and you should see something like [18]. Try to match the background and text positions, using the blurry original photo as best you can. Now is also the time to try and get the slant and text combined looking good.

16. Background parallelogram.



17. Outlined and rotated parallelogram.

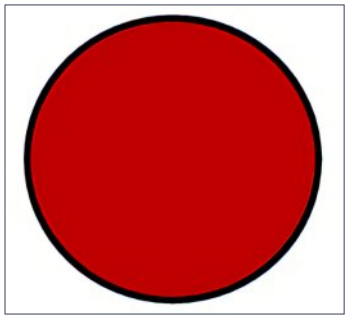
Next form a circle using the insert shapes menu pick. Set the circle outline to 3pt black line, with the same red fill you used for the parallelogram background stripe [19].

Select the filled circle edge and "Send to Back" as before. Then move it onto the ANAFAM banner and position it referring to the original Mill sign. (See [20]) I used the intersection of the circle near each of the letters to size and position the red circle. Take your time until you think it looks "good enough."

Next form the outer background circle, "Send it Back [21]." and then move it over your ANAFAM sign, like [22].

Iterate on positioning all the elements of the ANAFAM logo until it looks just right. Now take your mouse and select all elements

18. ANAFAM text on background.



19. Inner background circle.

20. Inner circle to the rear.

in the logo by left clicking a corner outside the logo and expanding it until the logo is completely contained, and all elements are highlighted together.

Move your mouse onto the selection (no click yet) until the pointer turns into a vertical cross, then right-click, and select Group->Group from the drop-down menu. You can now treat your ANAFAM logo as if it were a single graphic.

If you want to go back and manipulate individual elements again, you can select the graphic, right-click and select Group->Ungroup. Now you can select the ANAFAM logo, right-click and copy it back on the slide with the Veedersburg Grain rectangle. You should have something like [23].

The logo still needs a little resizing. I copied a small, well-proportioned picture of the prototype mill temporarily onto a slide from time to time as a placement reference.

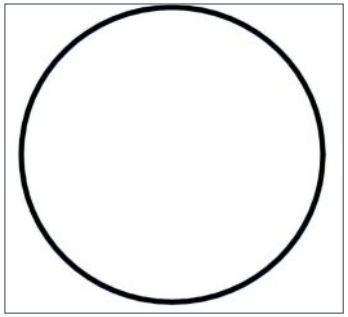
Since we "grouped" all the elements of the ANAFAM graphic, we can easily resize it in PP by clicking on the logo, holding down the shift key, and then grabbing a corner of the outline, and moving it toward the center to reduce the size of the graphic proportionately.

Once satisfied with the entire sign in PP, we can find the menu pick at the top of the window for Export->Change File Type->JPEG File then Save As, set file name and folder location, click Save, and select "Just This One" when asked which slides you want to save.

Now you have a JPG photo you can re-size, duplicate, rotate, and crop using any photo editing software. Because we worked with reasonably sharp, well-sized graphic elements, scaling for most models should be easy.

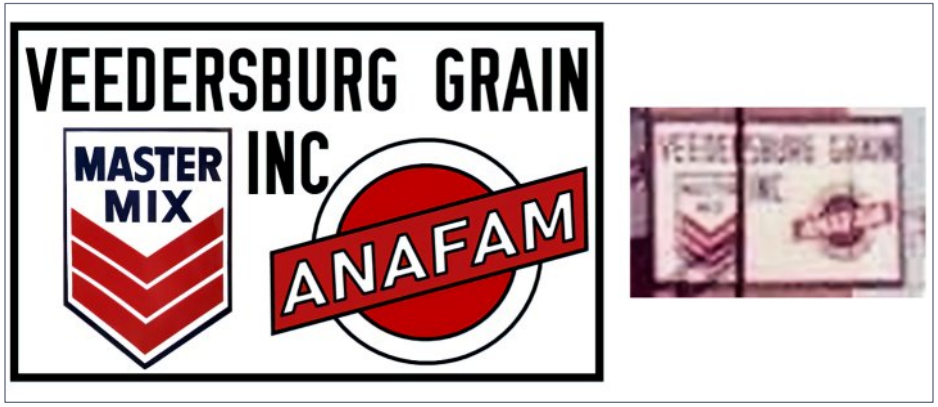
Cardinal Cafe

AndyZ's next challenge was "The Cardinal Cafe" also in his home town. We have a "wealth" of three incomplete photos for reference, two of which are in black-and-white [25, 26, 27].



21. Outer background circle.

22. Second outer background circle added.



23. ANAFAM logo placed.

24. Veedersburg Mill sign complete.

25. Reference photo A. *AndyZ's original contribution*

26. Reference photo B. *AndyZ's original contribution*

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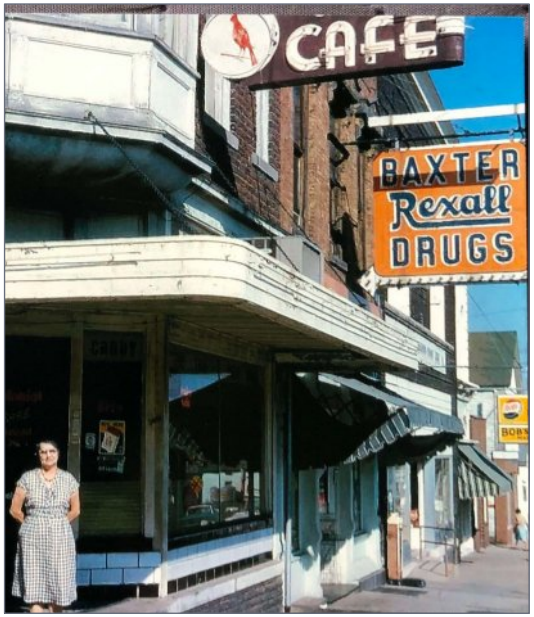


27. Reference photo C. *AndyZ's original contribution*

A Google web search revealed no more information, and the cafe sign is unique. The only references for size are the width of the sidewalk, the windows, and the light post. These are *relative* indicators; I had no actual measurements.

The Cafe font and storefront remind me of pre-war Art Deco [28, 29]. I did not think I would ever find the same font, so I was convinced I would have to recreate or "fix-up" the photo font. The cardinal image looked impossible to me, so I left it for last [30]. With not the most optimistic outlook, I went from here.

I flattened the sign perspective as for the Master Mix sign [31]. This left an odd shape on top of the sign's "flattened perspective" since the top of the sign had been cut off in the original photograph [30].

Simply applying the PSP perspective correction tool would cause it to lose the top of the picture. The remedy is to take the photo in [28], paste it onto a much larger background, and then

28. The zoom-in from [23] showed the font for "cardinal," and also the cardinal image on the sign. However it did not help us colorize the image, and the original photo was so pixilated that the results in the enlargement were blurry.

29. The zoom-in from [24] showed the complete sign, but the text and logo were unclear.

apply the perspective correction tool. This will correct and preserve the top of the photo, but adds the odd shape in [31] to the top.

Now the major task is cleaning up the graphic. Part of the issue is removing the neon lights highlighting the text and sign. Once "flattened" I began the tedious task to repair the letters with the paintbrush and clone brush tools, with the goal of making the "cafe" text outline crisp, the white fill a solid white, and the background "brown" a solid color.

Paintbrush will place a solid shaped color where ever you place your mouse and left click. In the menu bar you can set the shape

30. Best detail, color, and cardinal graphic were from [25].

31. Straightened sign.

(square or circular), the size, the color, and the hardness (which will fade the edges – in this case I set it to 99 which should fill in the entire brush shape). Remember you can enlarge the image you are editing for better precision. Change the shape and size to match the edges of the text characters you are editing [32, 33].

I am a firm believer in "good enough." Working on these signs filling the PSP and PP windows as much as possible will yield good graphics, even with tiny irregularities. Your signs will likely need to be reduced in size for your models, and with that reduction the imperfections become insignificant. Enlarging the graphic being edited will allow you to modify it pixel by pixel. I simply choose to find better things to do with my time!

Once the "cafe" text looks good, I save it in PSP as a JPG file (you can up-size the graphic two or three times by hitting shift-S if

32. Remove neon lights, fix letters.

33. Create a clean base.

need be), and then insert the new graphic into a PP blank slide. This will make the next steps easy.

Create a large rectangle with the same background "brown" color (using the eyedropper in PP color selection). Move the "cafe" text onto the large background rectangle after setting the text "Bring to Front." The reference for sizing everything else comes from the text.

Create and place a small white rectangle to the right of the "E" to the edge of the sign—don't worry about the length, just the position and width. Use [31 and 32] for placement references.

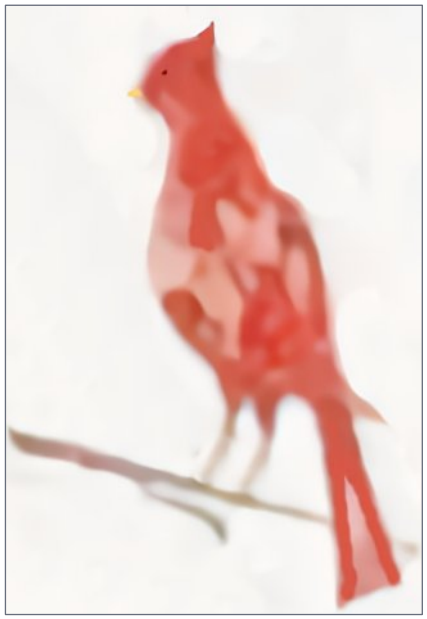
Next insert a solid white circle, again checking its relative size and position with the pictures of the prototype sign. Then crop the overall sign to size. [33] should be close to the result. Save the graphic as a picture (JPG or PNG) for later use.

I decided it was time to grab the cardinal and hope for the best. [31] was the best representation I had of the cardinal graphic – and it was unique. It actually looked hand-painted. PSP editing this took some time, as I wound up editing some areas pixel-by-pixel.

First, I cropped the entire bird from the [31] photo, and pasted it onto a much larger white background [34]. I enlarged the head and finished-off the top to create the tuft. Next was the beak. I formed it with two yellow lines, and was happy with that.

The stick it stood on got some attention, pixel by pixel. I did not like the colors – too faded for me. I wanted something more vibrant. I spent way too much time adjusting the color hue, saturation, lightness, and vibrancy. I even tried the Color Replacer tool. I stopped when satisfied. It wasn't perfect, but much better than the start – good enough [35].

You may use the Color Replacer tool to change the off-white background to white. You can adjust the "Tolerance" parameter for a sloppy range color match with good effect. Save the new cardinal as a file.



34. Cardinal graphic cropped and ready for work.

35. Enhanced Cardinal graphic.

I then switched back to PP, inserted the saved file [33] onto a blank PP slide, then inserted the new cardinal file (saved previously [35]) onto the PP slide just created, making sure the cardinal was "Brought to Front." I switched back to PP because resizing, rotation, and positioning are all easier to do in PP.

The cardinal graphic is centered in the circle. Relative sizes are checked against the original photos. The cardinal graphic can be easily rotated in position [36].

Next, I went searching again for another font for the "CARDINAL" text, and found the "Fira Sans ExtraBold" font in the PP font list. At Bold 54pt (based on my resizing in PP) it worked with all capital letters, set to white, and brought forward. It was positioned onto the sign. The sizing was set to match the positioning of the text relative to the edges in the "cafe" text. I heaved a sigh of relief – it worked!

Last, an easy white line was added across the top from the cardinal circle to the other edge, using the line-drawing capability in PP with 8pt width. A final edge crop of the whole made sure the line edges were crisp and well-sized. I then saved the entire graphic as an exported jpg file without any size reduction. [37] was the result. This was a two-sided sign, so I had some work left to rearrange the graphic elements to create the sign reverse, shown in [38]. This was straightforward.

One of the valuable things about saving graphics to photo files (JPG, PNG, etc.) is that both PSP and PP can resize them (until artifacts are created due to resolution limits). I mentioned earlier that small imperfections are negligible if you start with large graphics and then reduce them.

The Cardinal Cafe sign did not have an inherent size reference I trusted. When I looked at [26]. I noticed the sign might have been as long as the sidewalk below it was wide. For a small Indiana town in 1955, I estimated that could have been 4-6 feet. The car at the curb in front was likely no more than six feet wide.

36. Cardinal attached.

37. Cafe striped and cropped.

38. Cafe reversed sign.

Assuming our sign was no longer than six feet, I rescaled the Cardinal Cafe sign in PP to approximately 0.827 inches (PP ruler), and placed it in scale next to my working graphic in PP. [39] This gives you an idea of the reduction necessary for an HO scale (87.1:1) model. You may need to increase the size of the magazine photo a bit more, but perhaps you will understand why I don't sweat the small stuff.

The capabilities described herein have been available in PSP and PP for years, so you do not need the latest version.

The transformations I described might one day be supplanted by more sophisticate Artificial Intelligence-enhanced tools. Some AI-based graphic tools are already available to remove picture elements, enhance resolution, and reduce distortion. Knowing how to use your tools, in whatever form, is essential for improving your modeling. ☑

39. Reduced HO scale signs compared to PowerPoint full window graphic.