HOW TO MAKE CHEAP CUSTOM DECALS
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A little background about this project

Several things got me interested in doing custom decals. I have a picture of a car with very interesting weathering. The only way to capture this weathering is to make a decal for the whole side of the car. Then, I saw a couple of cars while on a business trip that I wanted to do, but when I checked no one offered decals for the those cars. I also wanted to do patched lettering for my railroad, but didn't want to purchase an Alps printer (Alps is one of the only printers that will print white ink). When I studied the Micro Scale web site I found that I could get decal paper that already had a white background. I could just do the patch lettering with a text box filled with black and use white letters. I decided to start small doing the decals for the cars I had seen in Cedar Rapids, before tackling a full car side decal.

I tried using an Inkjet printer without success. I went to my local Office Depot and ask if they could print transparencies, which they could. I had my decal paper with me, unopened, with the instructions in the package. The counter person looked at the instructions and said "no problem!"

Now, here is the good news! At the time of this writing, the 8.5 X 11 decal paper cost $2.75 per sheet, plus shipping. The cost of Office Depot printing the decals was $0.76 per sheet (7% tax included). That is $3.51 per sheet! I looked at the Microscale web site as I wrote this, the cost of a normal decal sheet was $8.75 (this is NOT an 8.5 X 11 sheet either!). Microscale has a minimum order of $20.00. I ordered five clear sheets, two white sheets, and a bottle of MI-12. This was more than enough to meet the minimum order.

Most print shops want the art work in PDF format, with the art work on a thumb drive. Concerting a Word document to PDF is not a big deal. When you go to the print setting, look for the choice of PDF printing. If your printer doesn't support this, your local library should be

able to help. I converted word document to a PDF at work. Office Depot can convert the word document to a ".pdf" for you, but they would prefer that you have it done before you get to them!

When printing the PDF file, make sure you have them set the printer for 100% scaling. If you don't, everything will be a bit smaller than you want it to be. This may not be a problem with a herald or lettering, but with a full car side decal it was a BIG problem. Something to remember, all printers print the colors in a slightly different shade. I suggest that you have one art work slightly lighter, and one slightly darker than you want. Have them print out a test page and compare it to the one you printed at home.

Office Depot used a color laser printer with the paper setting to transparency; and it worked fine. Once the decals are printed, remember to coat them with Microscale Micro Liquid Film (MI-12).

I was trying to find other places that could do the decals so I would not be limited to just one place. I tried to have Staples print the decals, but they did not want to do them; they said I could not supply my own paper. I also tried to have Fedex/Kinko's print the decals, however I was told that the manager would have to approve the work. I left a sample of the decal paper, along with a copy of the decals I needed printed, and I was told the manager would get back with me the next day to discuss the work. That was three months ago (as of this writing).

Office Depot / Office Max has done all of my decal printing and they have never had a problem doing them. Every time I have gone in to have the decals printed (at Office Depot / Office Max), there has been a different person working the printing area. Each time I explained what I needed done, and showed them the Microscale instructions. Each time I have walked out of the store with the decals I needed.

Programs used to make the art work

Microsoft Paint
Microsoft Word
Microsoft Visio
Gimp (free)
InfanView (free)
Apache Open Office (free) if you don't have Microsoft Office

Items that you will need to make the decals and complete the model

Laser color printer
Thumb drive device
Microscale Trim film, #02-0 Clear decal paper (8.5 X 11)
Microscale Trim film, #02-1 White decal paper (8.5 X 11)
Microscale Micro Liquid Decal Film, #MI-12
Microscale Alphabet, Gothic, White #90101 (HO)
Microscale Alphabet, Gothic, Black #90102 (HO)

Items that you will need to make the decals and complete the model
(continued)

Microscale Freight Car Data, Gothic, #87-260 (HO)
Microscale Consolidated Lube Plates, #MC-5002 (HO)
Microscale Trailer Conspicuity Striping, #MC-4122 (N)
Microscale Reflector Stripes 4 X 18, #MC-4389 (HO)
Walthers Solvaset, #904-470
Sharp #11 X-Acto knife
Sharp straight pins
Q Tips
Small clean paint brush (used for applying the MI-12)
Testors Dull Coat #1260
Testors Gloss Coat #1261

The CRANDIC car

I wanted to do a couple of Cedar Rapids and Iowa City (CRANDIC) covered hoppers, but I was unable to get a good photograph of the CRANDIC car. I Googled it and found a good picture. I was not interested in doing a perfect match of the prototype, however I wanted to capture the flavor of a unique short line railroad.

Matching the font on the car was easy, but I needed the CRANDIC herald. I went to the CRANDIC web site and found one I could modify. Below is what I found.

With a little work using a free software program called Gimp, I was able to remove the area not needed. Enlarged the picture on the computer screen and used the erase function of the program to remove the area not need. Save your work as you go, in case you make a mistake you don't have to start all over from scratch! As you can see, it looks like the herald on the car.

Using Microsoft Word, start putting the decal sheet together. Set up Word for No Spacing rather than Normal. Work with Word until you get the decal just the way you want it to be! Use Calibri (Body) font size 12 for the *"Cedar Rapids and Iowa City"* and adjusted the sizing of the herald to get the right size for the decal. Adjust the size of the space between the road name and the herald (I used font size 6 for spacing). Below is what I ended up with. This is a direct copy of the decal sheet.

CEDAR RAPIDS AND IOWA CITY RAILWAY

For the reporting marks and car number, use "Arial Black" font size 12 with the "Bold" setting. This matches the picture of the porotype car. Didn't put a space between the reporting marks and the car number. The "LD LMT" and "LT WT" are set up for font size 4 with "Bold" setting and have no space between the between the "LD LMT" and "LT WT." This is a direct copy of the decal sheet.

CIC

2077

LD LMT 223100
LT WT   62900

Use a "text box" in Microsoft Word to create the white background of the *"In recognition of…"* label. This lettering is centered in the "text box." I used the black lines as guide of where to cut the decal out. The lettering is font size 4 and the text is italicized. This is a direct copy of the decal sheet. This decal is made on the white decal paper.

IN RECOGNITION OF
CRANDIC RETIREE
EDWARD M. BARNES

Use Arial Black font size 6 and the Bold setting for the reporting marks and road number for the end of the car.

CIC
2077

For the "WORK SAFELY" decal, use white decal paper, use a text box, and use Arial Black with font size 4 with red letters.

<div align="center">WORK SAFELY</div>

Try to fill the page with decals, to save on the cost of making the decals. Sometimes it worked out, sometimes it didn't! You can add items for other decals I needed just to help fill the page.

Once you are happy with the looks of the decal sheet, print it out on regular paper. Cut out the decals just as you would to put them on the model. See how they look and fit!! Now is the time to fix any problems! If the lettering needs to be bigger, increase the font size, and try it again. Once you are satisfied with the decals you are ready to print them out.

Once you have the decals printed, use the Microscale Liquid Decal Film and a clean paint brush to cover all the decals. This will help to prevent a color change when you dull coat the car. I suggest a new paint brush for this and use it only for your decals. You don't have to cover the area between the decals unless you want too. Set the decals aside to dry for a couple hours.

For this model, I used an Accurail #2096 three bay covered hopper with car data only on it. The weight data was wrong for the car, so I painted over it with Scalecoat II #20201, Maintenance of Way Gray (brush on). Set aside to dry.

Applied the decals just as you would with regular Microscale decals. Use Walthers Solvaset to set the decals, and repeated this set until there are NO air bubbles. When the decals are dry, dull coat the car. Below is the finished model.

The Amazon Prime Trailer

The next model I did was the Amazon Prime highway trailer. Again, a friend sent me the picture below, so I had to build one. This one was a bit of a challenge; I had to remove the parallax to copy the "Amazon Prime Tape" from the trailer.

I first cropped the picture to remove items I didn't need; i.e., the background. I did this step with InfanView. My next step was to remove the parallax using Gimp. Open the picture, on the Tool Bar, select Tools, then select Transform Tools and then select Perspective Tool.

Gimp tries to save the picture as an .xcf document. You can make it save the picture as a .jpg pdocument. Change the .xcf to .jpg. Click on Save and a dialog box will pop up and ask about Exporting the picture, then click on Export.

Once the trailer picture was square, crop the picture again to get just one trailer. I used Microsoft Paint to erase the background around the Tape Logo. This leaves a white or clear background. Use InFanView to crop the picture to get just the Tape Logo.

You can find the Amazon Prime logo with the smile on the Amazon web site. Inserted the picture of the logo in the Microsoft Word document and resized it to get the size needed, and then copy it to get the second logo. Resize it again to get the logo for the front of the trailer. I did a text box with red lettering to get the "CAUTION 13' 6" HIGH." Font size for caution and high was 4 and the font size for 13' 6" was font size 6, and both were Arial.

The vent holes were made using Microsoft Visio. Make small circles and filled them in with black. Adjusted the size to get the appropriate look, then copied it to get the number of vent holes needed. You can do the same thing using Microsoft Paint.

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The arrows were made using Microsoft Visio.   Use the "arrow" tool, then sized one to look right, then copied them to get the number of arrows I needed.

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The roof on the trailer is translucent, and an off color light brown. On this, I never got the color quite right. The printer at the print shop came up with a different color every time. (Next time, I will just paint the top.) Using a text box, I filled it with a color that looked right, then sized it to fix between the rivets on the roof.
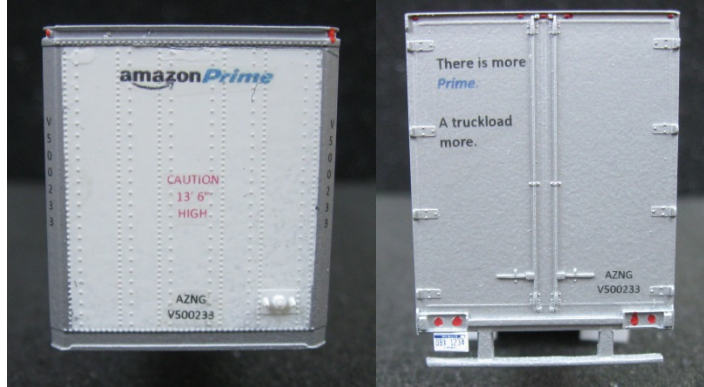
Applied the decals just as you would with regular Microscale decals. Use Walthers Solvaset to set the decals, and repeated this set until you have NO air bubbles. When the decals are dry, dull coat the car.

I did some research for as to how the front and rear of the trailers looked. Below are the pictures that I found.
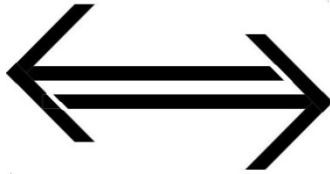

Below are pictures of the finished model.

The B & FE Covered hopper

The B & FE covered hopper was made using a mix of commercial and custom decals. I started out making the arrow herald using Microsoft Visio. I did them larger than what I needed and reduced them to get the right size.

Use a text box to make the weight data, Calibre (Body) with font size of 4.

Use a text box to make the "PROUDLY REBUILT IN THE SANFROD SHOTS" with Arial font size 4

Below are pictures of the finished model.

The Missouri Pacific Covered Hopper

When I started this project, I thought this would be the hardest decal to do; after all it is a full car side decal, I was very much surprised as to how easy it really was!

Use InFanView to removed most of the background. Use Gimp to remove the parallax, and then use InFanView once again to crop the picture again to remove the rest of the background and the roof walk.

While soaking the decal, put a couple of drops of water on the side of the car. Once the decal started to move on the decal paper, soaked it a bit longer to get it good and loose. Carefully slide the decal on the car starting at the bottom. Being careful not to get any wrinkles in the decal. Use a Q tip to push the water from the recessed area at the bottom of the car.

It did take a bit of work to get it right, but it was well worth it! Below are pictures of the finished car.

Patch Decals

For the patch decals, use a text box, filled it with a black background, and used white text. For the car end reporting marks, and road number, use font size 6. For the car side reporting marks and road number use font size 12. Below is an example of a patch decal.

Graffiti – for the modern modeler

Use Microsoft Visio to draw the graffiti below. It did take some time to get it right. Saved the drawing as a .jpg.

What I have learned about making decals at home

1. Make sure the print shop will do your decals! I tried Staples and Fedex / Kinko's, they refused to do them. Office Depot / Office Max have worked with me on many occasions to get what I need printed.
2. Have your art work as a .pdf file.
3. Make sure that the print shop prints the decals as a transparency.
4. Make sure they use 100% scaling.
5. Always have your decal paper in the sealed package from Microscale when going to the print shop, with the directions!
6. Always show the person printing the decals the correct side of the paper on which to print.
7. Be prepared for the colors to be somewhat different from your home printer.

8. If you have a color laser printer at home, you may be able get a replacement toner cartridge for the black toner that will print white. The web site is: https://www.ghost-white-toner.com/ghost-white-toner-for-your-printer/
9. I have found that the Testors decal paper is much thicker that Microscale decal paper. If you use the Testors paper on a judged model, it could cost you points as the decals edges become quite visible.
10. Remember – The decals should looked "painted" on, not stand out as placards!

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If you call me and I don't answer, please leave a message. Tell me you have some questions about doing the decals. I will return your call!!