Course 9: Coated Metals
Lesson 7 In DRAW; Serialized AlumaMark Shapes

Trying to drum up repeat business? Contracting for a company that will need serialized parts is a great way to keep money flowing into your coffers every month.

Possibilities

Most businesses have a need for serialized parts.....even if they are not currently using them, you can show them the value these parts can have. For example, coming from a large school district, I can tell you that schools are a great idea for serialized parts. With so much equipment (trucks, dollies, computers, filing cabinets, projectors, etc.) to keep track of…the only way this can be done is if the inventory has a bar code system. Each serialized part is fixed onto every new purchase and scanned into inventory and then sent to its destination campus. Each year inventory is easy to do - just a quick bar code scan.

There may be businesses in your area that know they need a laser engraver for this or businesses that will see the value after your impressive presentation. Whatever the case may be this is a great way to keep repeat business and money coming in during slow months.

This lesson will use rounded rectangle tags on an adhesive sheet. The adhesive used on our product is by 3M and is industrial strength - this means that tag is not going anywhere once attached! Also available are squares, circles, scalloped edge rectangles and in both satin silver and satin brass colors.

Materials

Windows XP or better	CorelDRAW
Laser Engraver	LaserBits item# NUS 074 - AlumaMark Satin Labels - 1.825" x 1 " x .005" - 36 labels on a sheet - 5 sheet pack
Ruler	A printable version of this lesson is available here

Watch the Video Version of this lesson!

Steps

1) Launch CorelDraw

New

2) Select the **New File** icon from the opening menu to start a new, blank drawing area.

3) Set the ruler so the upper left corner is at origin 0,0.

4) Measure the dimensions of the sheet. Look at the image (below) of the sheet of AlumaMark shapes. Here are the dimensions I measured:

- perimeter: 8 1/2" x 11"
- each shape: 1 13/16" x 1" (converted to decimals 1.813 x 1.00)
- shapes start 7/16" from left & right margin (converted to decimals .438)
- shapes start 1/2" from top & bottom margin (converted to decimals .5)
- shapes are spaced 1/8" from other (side to side and top to bottom) (converted to decimals .125)

It is very important that you measure as exact as possible as we are creating an exact template.
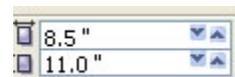
5) Select the **Rectangle Tool** and mimic the sheet of AlumaMark pieces shown in step 4. Since we are NOT cutting in this example we will create layers for text, bar codes and shapes.

We will create one fully defined shape and then duplicate it across for our first row. Then we will duplicate the entire row down for nine rows. It may sound complicated, but I promise after you do it once you will get the hang of it and it really is quite easy - honest.

I will create my three layers now: shapes, text and bar codes.

6) Set the area to a size of 8 1/2" x 11". This is the size of the sheet.


7) Be sure the shapes layer is selected. Select the **Rectangle tool** and draw in one rectangle and set the dimensions at 1 13/16" x 1" (or 1.813 x 1.00) using the **Transformation Docker.** Using the corner rounders, I set the corners at a rounded angle of 11 to mimic the shapes on the AlumaMark sheet. While this is not necessary, I like to do it so I can get as close a match to my finished product as possible.
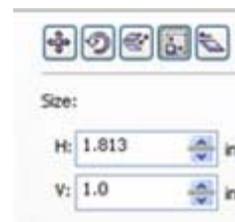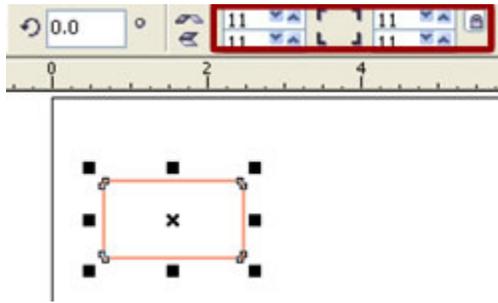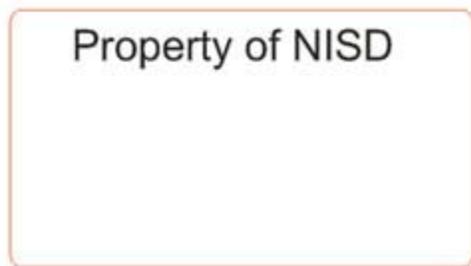
8) Now, using the Transformation docker, we will position the rounded rectangle in an *exact* location. As we look at the sheet all shapes are 7/16" from the left margin and 1/2" down from the top.
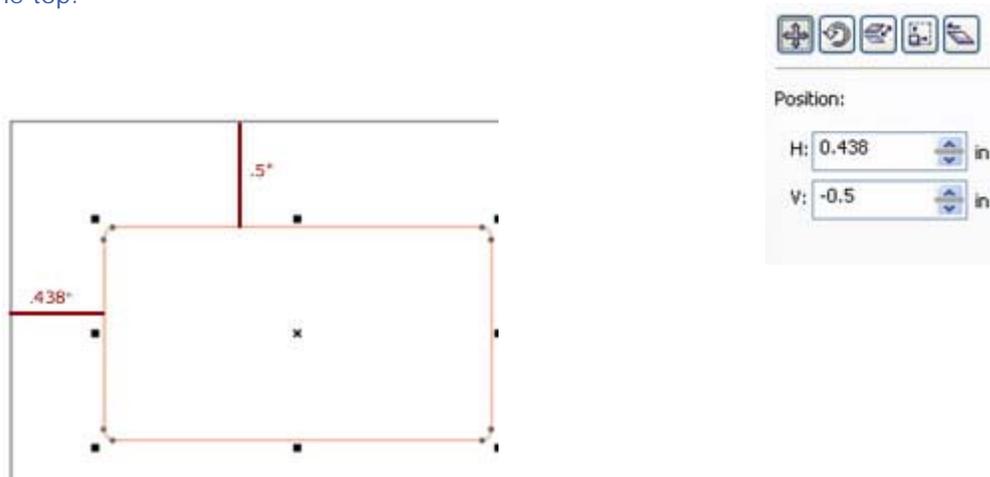
9) Next, select the **Text** layer in the **Object Manager**. Use the **Text tool** and insert text. I will be entering in "Property of NISD" in Arial size 12.

10) Next, select the **Bar Code** layer in the **Object Manager**. Then go to **Edit>Insert Bar Code.**

11) A new window will pop up (see below). You will need to make selections in accordance with your customer's needs and the type (make/model) of the bar code scanner they use.


I am going to enter in a beginning number for this example.

12) After I select *Next* this is the next screen available (see image). I changed the bar code height to .5". I know this is a good height for my current needs (due to trial and error).
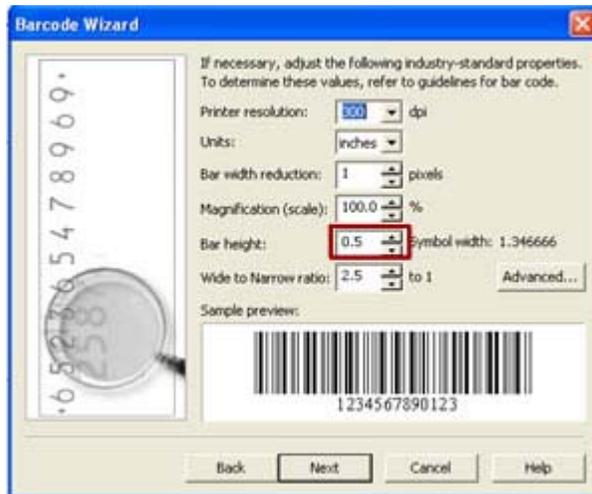
Click "next" and "finish" until you are through the screens for the bar code.

13) The bar code will be inserted in some odd location on your screen. Click and drag it to the proper location on our first rectangle.
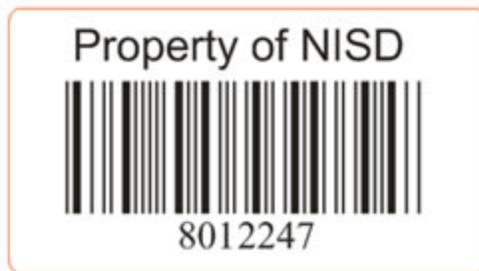
14) **Caution: read through steps 14 - 16 BEFORE** you try to complete them. Any unnecessary clicking will NOT result in the desired effect.

Select the **Pick tool** and drag and draw a square wide enough around all of the three objects so that when you let go all three are selected.

15) Do a Ctrl-D and do NOT click anywhere on your drawing area of your screen. Click on the **Transformation docker** to bring it forward. Make sure the Position tab is selected and enter in H = 2.375 and V = -0.5
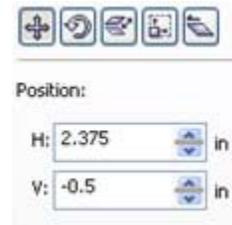
Still DO NOT click anywhere on the screen.

16) Do a Ctrl-D - twice. Not clicking anywhere on the screen in effect lets the computer keep the spacing/positioning we created between our first and second rectangles and places the third and fourth in the proper locations and we do not have to figure out the math of how many inches horizontal, etc.

Now, how did I come up with the placement for the second rectangle? I added 7/16" + 1 13/16" + 1/8" = 2.375. (Converted to decimals = .438 + 1.813 + .125 = 2.375)

Why? The left margin is 7/16" wide. The width of the first rectangle is 1 13/16" wide. The space in between the first and second rectangle on my AlumaMark sheet is 1/8" so that means my second rectangle's left side begins at 2.375".


17) Now we will repeat the same type procedure for creating our rows. Select the **Pick tool** and draw an area large enough around the first row so all of the objects are selected.

18) Do a Ctrl-D and do NOT click anywhere on your drawing area of your screen. Click on the **Transformation docker** to bring it forward. Make sure the Position tab is selected and enter in H = 0.438 and V = -1.625
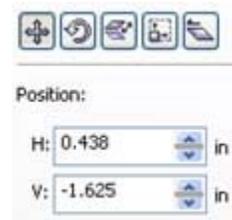
Still DO NOT click anywhere on the screen.
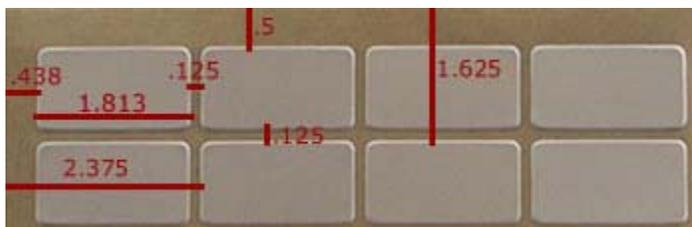
19) Do a Ctrl-D - seven more times. Not clicking anywhere on the screen in effect lets the computer keep the spacing/positioning we created between our first and second rows and places rows 3 - 9 in the proper locations and we do not have to figure out the math of how many inches vertical, etc.

Below is a (zoomed out) image of what your sheet should resemble.

20) Now we must adjust the bar codes. Right now all 36 bar codes are identical in their number. We need to make them unique. First, turn the pencil "off" for the text and shapes layers. This will make them un-editable. Since moving anything, at this point, would throw off the entire sheet this is just a precautionary measure.
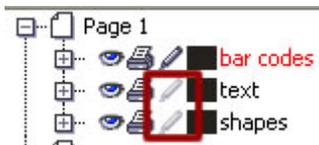
21) Double-clicking on a bar code will open up the bar code window. I have adjusted each bar code by one digit to make them each unique.

LaserNote: You may wonder why, if we have to go in and adjust each bar code manually, why did we create one in our first AlumaMark shapes and duplicate it to all 36. Well, if we just duplicated the text and outline of the shapes and THEN did the bar codes now, we would have to go to Edit>Insert Barcode 36 times AND we would have to drag them into proper placement in each of the 36 tags. There is no guarantee that we can make them identical in placement that way. So doing it in the order given in this lesson provides us with identical tags in placement and size and now we just adjust the bar code digits to the needs of the customer.

22) Save your file to a safe location.

23) We are now ready to send this print job to your engraver! Each laser engraver is different. I will give the settings for my 45-watt laser. Go to the computer that is

attached to your engraver and open the file we created.

24) From CorelDRAW go to **File>Print**. From here go to Properties to adjust the Vector and Raster print settings. Here are my settings:

	Speed	Power
Engraving (Raster)	20	25
Cutting (Vector)	none	none

You will need to adjust for your laser engraver. Click on Print.

25) Place the piece into the engraver in the upper left corner since that is where we have placed the object in CorelDRAW. The placements from the ruler in Corel must correspond to the ruler in your engraver.
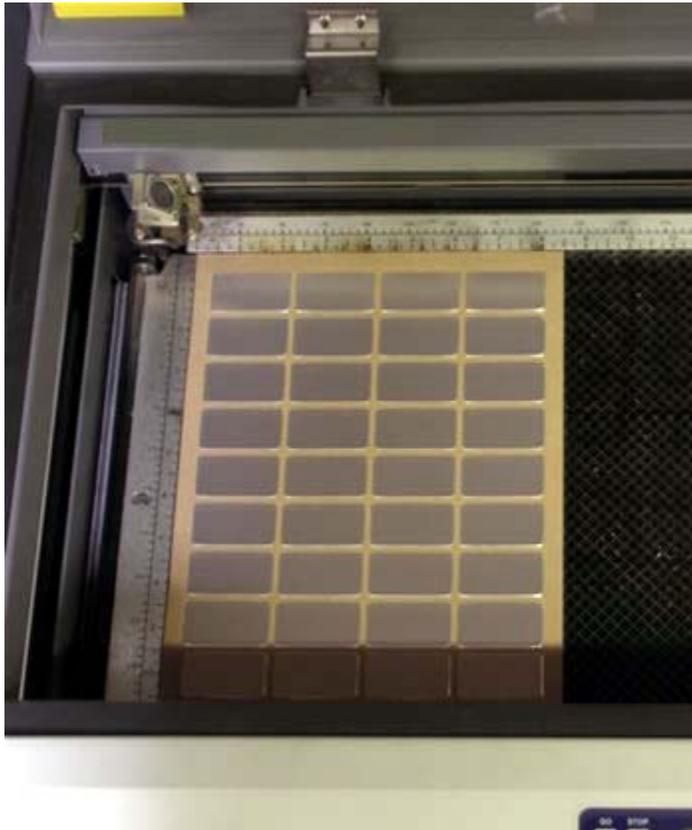
26) Select the button on your engraver to start/accept the print job.

27) Here is the finished product.

Congratulations! We now have a serialized AlumaMark sheet.

Analysis: Engraving serialized sheets may require a bit of set up in creating the sheet, but for repeat business, once you have your set up adjusting an item like the bar code will take mere seconds for future run jobs.

You have now finished Lesson 7. Proceed to the Quiz.
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