



5.0 - ENGRAVING TEXT AND A VARIABLE BARCODE ON ALUMILAZ

Material Required: 10 Pieces of Alumilaz each 2 ¼” x 3 ⅞” or 1 sheet 10.25” x 6.875”

Difficulty Level: Intermediate



Figure 5-1 The Finished Matrix

Let’s revisit the Alumilaz plate from the previous lesson and this time we’ll do it as a run of, say, ten plates with each of the ten having a different bar code.

This sounds time-consuming, and it is for most other programs, but GravoStyle5’s variable text feature makes this task quick and easy!

Here’s the plan of how we’ll proceed:

- We’ll use the Variable Text tool in the “Special Tools” fly-out tool pallet to enter our list of ten data entries.
- We’ll design our bar code. In the process we’ll use the appropriate bar code dialog box to instruct GravoStyle5-Laser to use our variable text.
- We’ll type in the text portion of the plate



- We'll create a view on-screen showing the plates in a two across by two down matrix.
- Finally, we'll send the plates to the laser for engraving and save the file for possible future use.

5.1 Enter the Variable Text

Let's open the job from the previous section

(Job Folder\File: Section 4 - Text and Barcode on Alumilaz\text and barcode on Alumilaz.gnh).

Next, we'll select the "Edit Variables" tool from the Special Tools fly-out tool pallet (Figure 5-2).

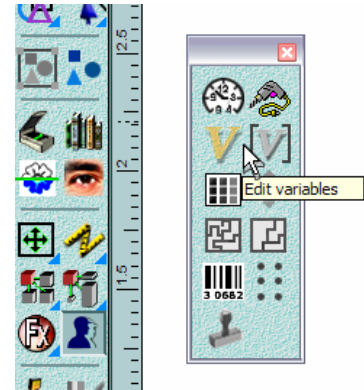


Figure 5-2 Edit Variables Tool

The Edit Variables window will open (Figure 5-3).

Notice that this window looks like a spreadsheet and we can use it like one to enter our data.

The default window has only one column, but we can add more by right clicking in the window and selecting "Add a Variable". For this job, the default of one column will be sufficient.

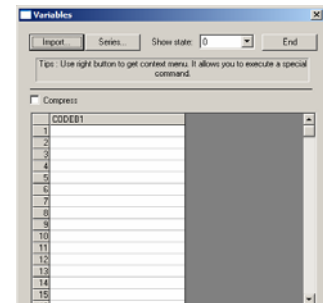


Figure 5-3 Variable Text

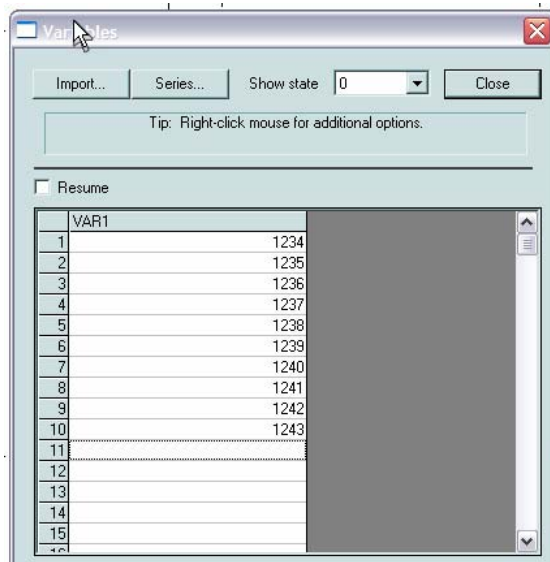


Figure 5-4 Variable Text Entry

Let's enter our ten numbers. We'll use ten consecutive numbers from 1234 through 1243. When we're finished, the Variable Text window will look like Figure 5-4. So, we've just defined the variable text that will be substituted, one at a time, in each barcode of the matrix we will define. Don't close the Special Tools fly-out tool pallet now –



we'll need it open to design the bar code. Close the Variable Text entry window.

5.2 Modify the Bar Code

There are two ways to modify an existing bar code. 1) Select the bar code and click the Bar code tool or 2) Double-click the edge of the bar code object. Try these and open the bar code wizard for the existing bar code.

Click "**Next**" two times to get to the code definition dialog. Check the box "Use a variable text".

We'll notice that the drop down list showing "CODEB1", which had been grayed out, is now enabled (Figure 5-5). Again, "CODEB1" is the default we'll use it, but if we had other variable names this is where we would select the one we want.

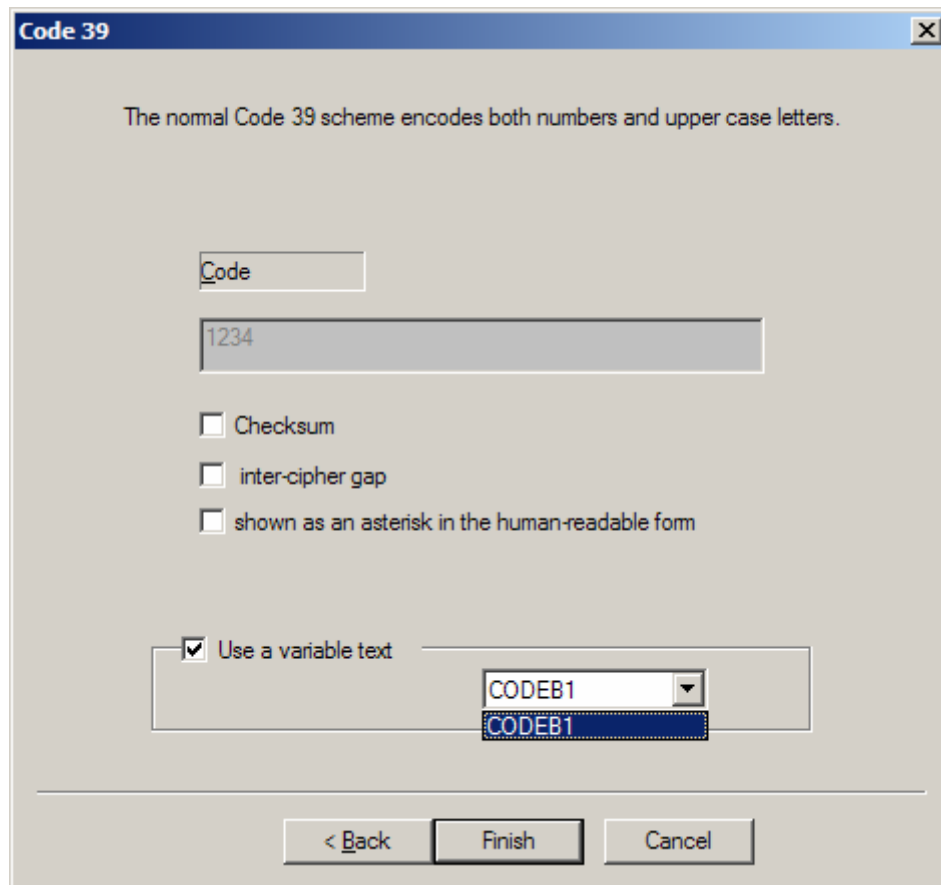


Figure 5-5 Variable Text Selected in Bar Code Dialog Box



Next, click on “Finish” to close the Bar Code dialog box. Look at the bar code area of the job, and we see that the bar code shows as a small box with a large “X” in it (Figure 5-6). Why? It’s because we didn’t design just one bar code; we really

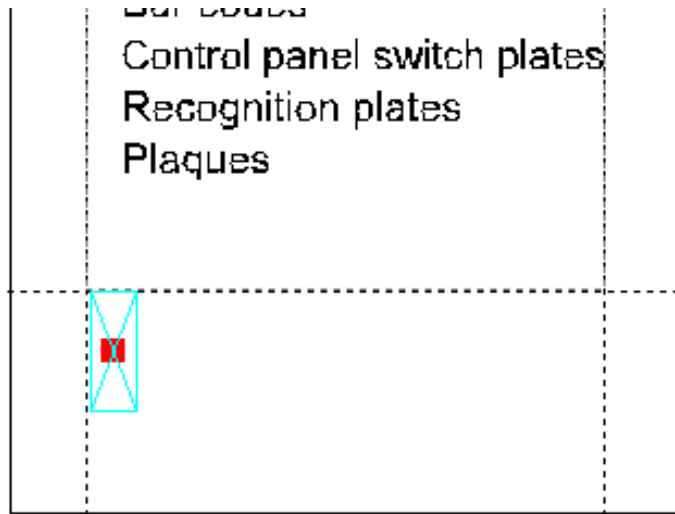


Figure 5-6 Variable Bar Code In “0” State

designed ten of them and the program doesn’t know which one you want to display.

Let’s re-open the “Edit Variables” tool. We’ll see a drop-down box at the top that is labeled “show state” and the default value of “0” is selected. That’s what we’re seeing on our graphic: state 0, or no bar code at all! Let’s select “show state” 1 instead (Figure 5-7).

Now the 1st bar code in our list appears in our job (Figure 5-8).

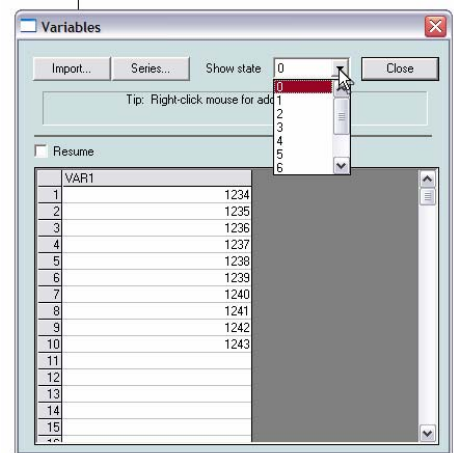


Figure 5-7 Selecting Bar Code State to Be Displayed

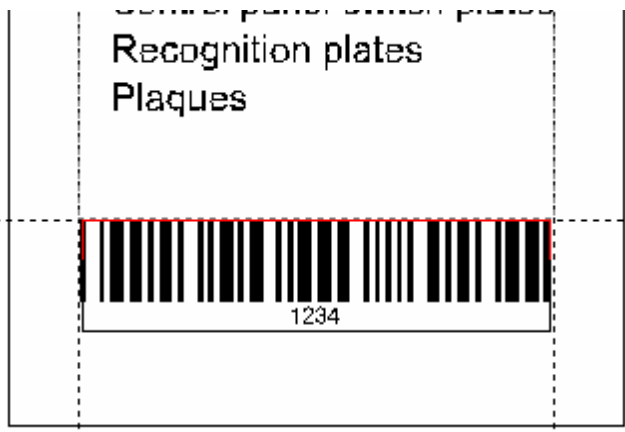



Figure 5-8 Bar Code State 1



5.3 Generating All Ten Plates

Now we'll generate all of the plates. For this, we'll use the tool labeled "Multi-Copy". It's also commonly called the "Matrix" tool and it's located in the "Special Tools" fly-out tool pallet. When we click on the "Multi-Copy"  tool, a dialog window opens and it's here that we'll choose the matrix layout that we want (Figure 5-9).

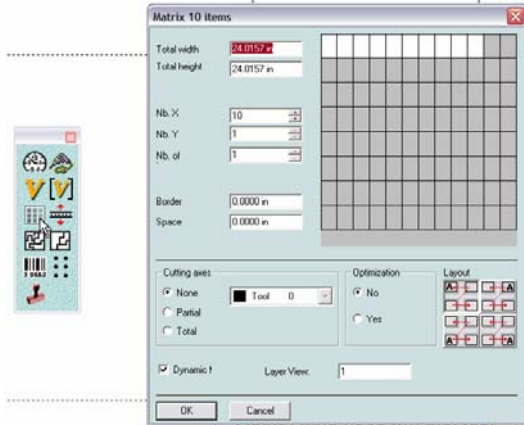


Figure 5-9 Multi-Copy Dialog Box

Notice all of the boxes in the upper-right portion of the dialog window. The entire area represents the engraving machine's table size and each individual box represents a possible plate for our job. We can choose any number of plates across and any number of plates down, but for our job, five across and two down makes sense. We'll choose this by dragging the cursor arrow from the top-left box to the fifth box across and the second row down. When we've finished dragging the cursor, the dialog box will look like Figure 5-10. We then click "OK" and the dialog window closes, the screen redraws and all of our plates are generated in a '5 by 2 matrix'.

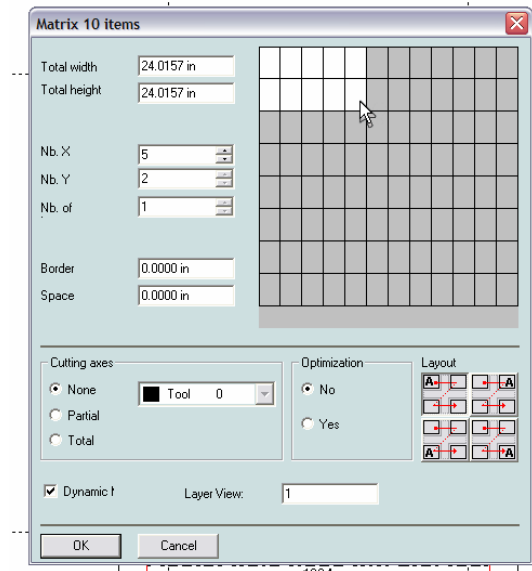


Figure 5-10 Choosing the Matrix Size

The finished array appears as shown in figure 5-12.



Figure 5-12 Finished Matrix

Each plate in the matrix has its own, different bar code number and the bar codes are appropriately different. To see this more clearly, we can zoom in to the display by using the zoom tools at the top of the GravoStyle5 window.

5.4 Engraving the Job

Let's send this job to the laser engraving machine using a power setting of 70, a speed setting of 80 at a resolution of 600 dots per inch (for Alumilaz on a 60W

Power Tip

We can use the right mouse button for zooming. Merely right click and the display will zoom in, centered on the place where the cursor arrow is.

To zoom out, hold down the keyboard's "control" key while right clicking.

Remember: right-click zooms in; control-right-click zooms out.

Also, if you double-click the right mouse button, you will Zoom-All.

Power Tip

There is a special case that's very powerful. If we have a job with variable data and define the matrix as just one across and one down, GravoStyle 5 Laser will send multiple files to the table at one time. Each file will be one plate and the number of files will be equal to the number of plates required to engrave all the variables. This makes it easy to engrave objects that contain variable data that we want to engrave one-at-a-time. We need only to remove an engraved piece from the table, insert the next one and press the "Next Job" button on our laser-engraving machine.



Look Further

What happens if we choose a matrix size that has a different number of plates than our variable data needs?

Remember that the Multi-Copy function works with all elements of our job and isn't confined to variable data. If we define too large a matrix size for the number of variable data, we'll still reproduce the matrix as we defined it. All other elements of our job will be duplicated for all matrix positions, but the areas where variable data appears will be blank in the extra places.

If we define a matrix size having a smaller amount of positions than the number required by the variable data, extra plates will not be generated on-screen.

laser). Remember, the contents of this job are all ten plates -you'll have to lay them all out in the same 5 by 2 matrix on your laser table. As an alternative, we could engrave all ten plates on one large sheet and cut them out mechanically later. Another option would be to have the laser beam make the cuts if we're using a material that laser-cuts well (not the Alumilaz material).

5.5 What we've Learned

Engraving this plate with variable data has taught us:

- How to work with variable data
- How to work with the Multi-Copy (Matrix) tool
- How to edit a barcode object
- How to use the right mouse button for zooming and other functions
- How to use GravoStyle5's alignment tools