

LESSON 3 : NAMEPLATE WITH A VARIABLE SERIAL NUMBER

In this lesson we'll learn how to set up a job which is a 4 by 3 matrix of nameplates, each with a different serial number, but otherwise identical. The finished job is shown in figure 1-1. (Note that the middle row of nameplates is upside-down. This is because we're going to let GravoStyle automatically arrange the nameplates in the matrix to optimize the machining time.

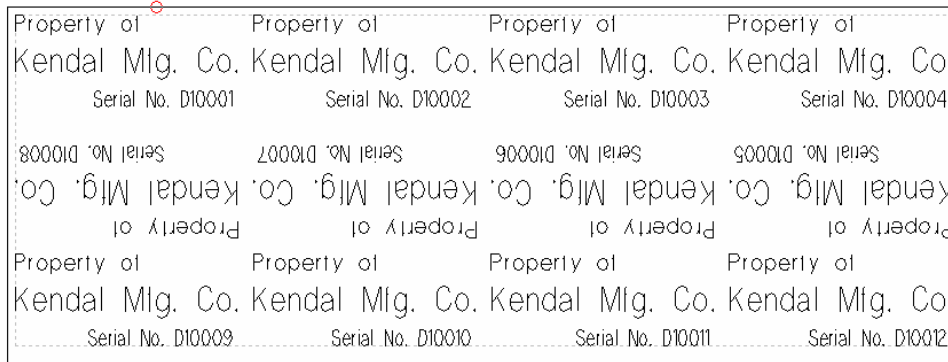


Figure 3-1 4 by 3 Matrix of Serialized Nameplates

The concepts we'll learn are how to:

- ... Design a job with multiple nameplates with text that can change from nameplate-to-nameplate
- ... How to place the nameplates, with variable text, in a matrix
- ... How to have GravoStyle optimize the arrangement of the nameplates within the matrix for minimized machining time
- ... How to use guidelines to help position text where we want it

Our job's specifications are:

- ... File Name: Variable Matrix.vnd
- ... Each Nameplate: 3 inch wide by 1.5 inches high, with a margin all around of 0.1 inches, placed on a 12 inch by 4 ½ inch piece of Gravoply 2
- ... First Line of Text: US Block 1Line, 0.2 inches high, positioned at the top left margin
- ... Second Line of Text: US Block 1Line, 0.3 inches high, centered 0.8 inches above the bottom of each nameplate
- ... Third Line of Text: US Block 1Line, 0.2 inches high, right justified from the right margin and with its baseline on the bottom margin. This line will have a serial number that changes from nameplate-to-nameplate.

Our job plan is to:

- ... Resurrect the single plate that we designed in lesson 2 (Figure 3-2)
- ... Reposition the bottom line so that it's centered 0.8 inches above the bottom of the plate
- ... Add a third line of text, right justified, saying: "Serial No. "
- ... Add a marker representing our variable (the actual serial number) at the end of the third line
- ... Tell GravoStyle what the serial numbers are
- ... Enter the Multiple Copy (matrix) tool and setup our matrix
- ... View the finished matrix



Figure 3-2 Nameplate from Lesson 2

STEP 1: RECONSTRUCT THE NAME PLATE FROM LESSON 2

Unless we saved our job in lesson 2 *before* we finished the matrix, we'll have to reconstruct it at this time. When we do this, our job will appear as shown in figure 3-2.

Learning Experience

It's always a good idea to save your matrix jobs before defining your matrix. Once the matrix is done and the file closed, the individual plate does not exist anymore even if the final project is saved to disc. The saved job will be the entire matrix and it may be more of a chore to extract a single plate than to reconstruct it if you want to use the design again!

STEP 2: REPOSITION TEXT USING A GUIDELINE

We'll move the mouse into GravoStyle's top ruler bar - anywhere within the ruler will do - click the left mouse button, and, holding the button down, we'll drag the cursor into our job. We'll see that when we drag past the job's top margin a horizontal dashed line appears as shown in Figure 3-3. This is a *guide line*, and it's a very useful

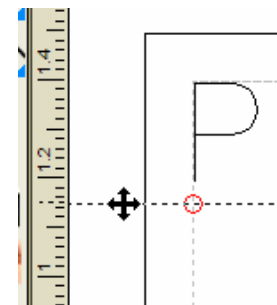


Figure 3-3

tool for positioning elements of our job where we want them. We'll continue to drag until the guide line is at the 0.8 inch position on the vertical ruler at the left of our screen. We'll then select the second line of text and drag it until it is centered on the guideline as shown in Figure 3-4. (We'll assume that visual accuracy is sufficient for this job.)

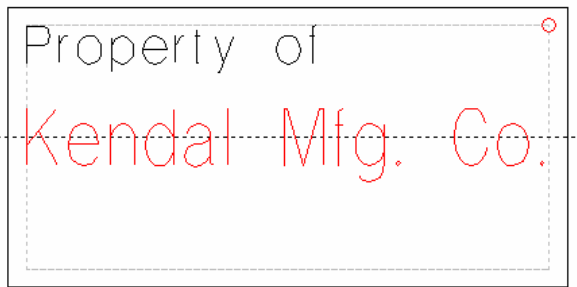


Figure 3-4 Text Repositioned

Look Further

If we need greater accuracy in the placement of guidelines, we can click on the "Modify" menu at the top of the screen, then "Guide lines". A guide line management window will open, allowing us to position horizontal and vertical guide lines with precision. Here, we can also add guide lines without dragging and also delete

When we're finished repositioning the text, we'll delete the guide line to reduce screen clutter.

STEP 3: ENTER THIRD LINE OF TEXT WITH RIGHT JUSTIFICATION

We'll now enter the text mode by clicking on the left toolbar's Text icon. We'll be in manual text mode. If any text is highlighted as selected when we enter text mode, we'll unselect it by clicking anywhere on the screen with the text cursor. We'll then find the "Right align" icon on the text toolbar (either the top or bottom text toolbar will be OK) and click on it to right-justify our text (Figure 3-5).

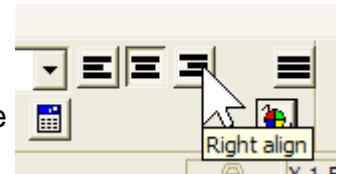


Figure 3-5

Why did we unselect highlighted text before clicking the "Right align" button? Because if we didn't, we would have unintentionally changed the alignment of the selected text!

We'll now click the text cursor near the bottom-right corner of our nameplate and type "Serial No. ". (Don't forget the space after the "No.!"!)

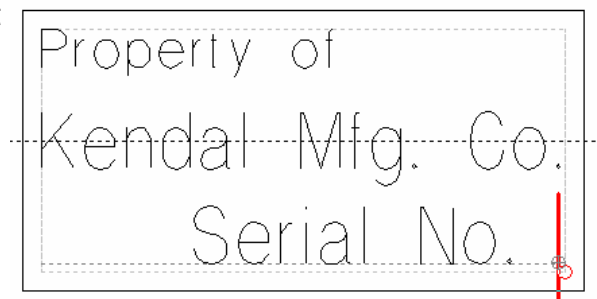


Figure 3-6 Third Line of Text Entered

STEP 4: ENTER A VARIABLE TEXT MARKER

We'll click on the "Professional tools" icon and choose the "Variable text" tool from the pallet that opens (Figure 3-7).

A new window will open titled "Insert variable text" (Figure 3-8). (Note that this window doesn't insert the actual text we'll want. Rather, it places a marker where that text will later be placed.) We'll accept the default "VAR1", although we could change its name if we wanted to. When we click "OK", our job will appear as shown in Figure 3-9 with the marker name enclosed within two small squares.

Remember - the word "VAR1" won't actually appear in our final job - "VAR1" just marks the position where our variable text will appear (in this case, a serial number that differs from plate-to-plate).

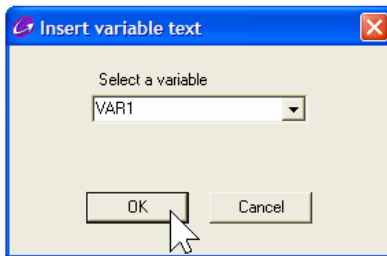
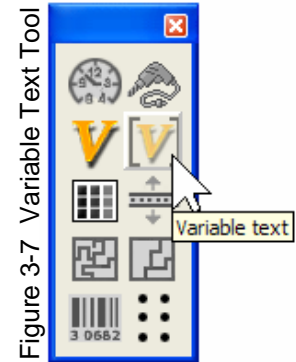


Figure 3-8

"Insert variable text"



Figure 3-9 Variable Text Marker Placed in Job

Look Further

We're not restricted to having just one variable in a job. We can have as many as we want - we have just to place an individually-named marker in our job for each vari-

STEP 5: ENTER OUR VARIABLE TEXT

Let's look at the "Professional tools" pallet in figure 3-7. Immediately to the left of the "Variable text" tool is a similar looking icon. It's labeled "Edit variables". We'll click on it and a new window will open (Figure 3-10). It's titled "Variables", it looks like a spreadsheet and it's here that we'll enter our serial numbers

The “variables” window looks and acts like a spreadsheet. The row numbers at the left identify each nameplate in our matrix and each variable is placed in its own column. (In our case, only one column.)

For this job, we’ll manually type in the twelve serial numbers we want - one for each plate. Figure 3-10 shows what the Variables window will look like when we’ve finished.

We’re now done with our design of the nameplates.

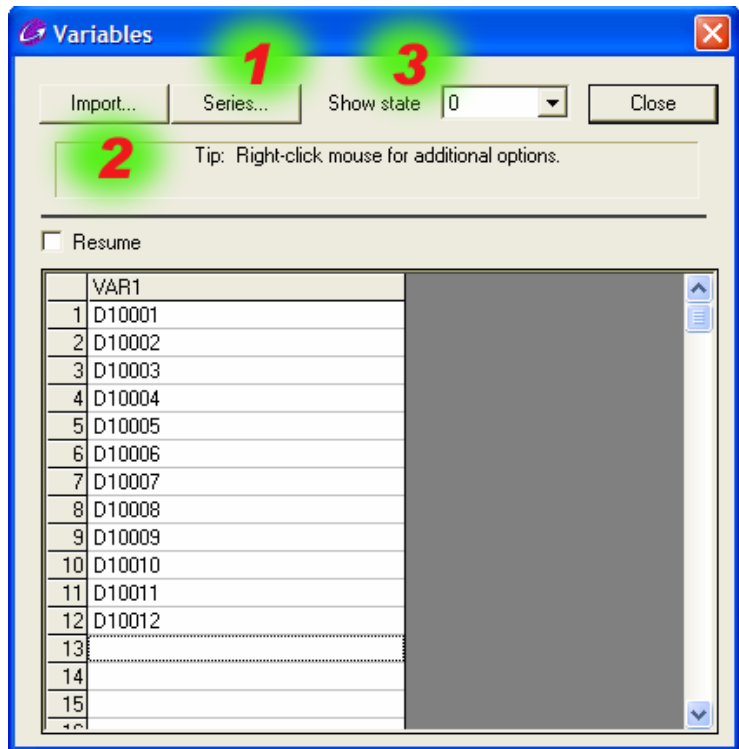


Figure 3-10 “Variables” Window

STEP 6: DEFINING THE MATRIX

We’ll open the “Multicopy” (matrix) tool from the “Professional tools” pallet (Figure 3-11).

We’ll see that GravoStyle already knows that we have twelve plates in our matrix and so it defaults to opening the matrix window with an array of 4 across by 3 down. We’ll leave “Dynamic Matrix” checked (it can save computer time on large jobs) and click on “Yes” for Optimization to let the program minimize machining time.

We’ll now click “OK” to close the matrix window and we’ll see our finished job as it’s shown in Figure 3-12.

STEP 7: SEND THE JOB TO THE TABLE

All that’s left to do now is to select an appropriate cutting tool (we’ll use the same .030 diameter tool as we did in lesson 2), check it with WYSIWYRE, enter the machining window, make sure that our engraving parameters are properly set, look at a final preview and send the job to the table.

Look Further

- ... ***Our variable text can be all alphabetic, all numerical or alphanumeric.***
- ... ***We don’t have to manually enter our variable text. We have two other options.***
 - ... ***If we click on the “Series” button at highlighted area 1 in Figure 3-10, a dialog window will open which will allow us to tell GravoStyle how to generate the list of variables if the items in the list follow a sequence.***
 - ... ***Clicking on the “Import” button at area 2 lets us directly import our variables if they’re stored in a plain text file.***
- ... ***The “Show state” dialog in area 3 lets us select which nameplate in the series to display on our screen. If, for example, we entered “11”, our nameplate will show the serial number “D10011” instead of the variable marker. (State***

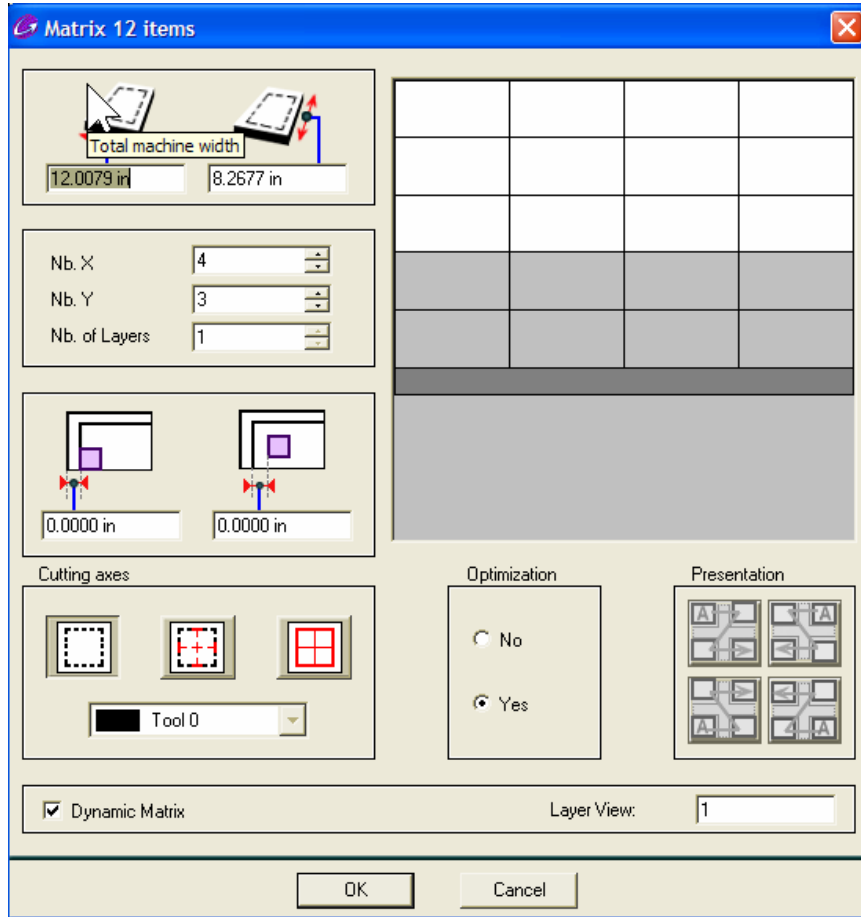


Figure 3-11 Matrix Window

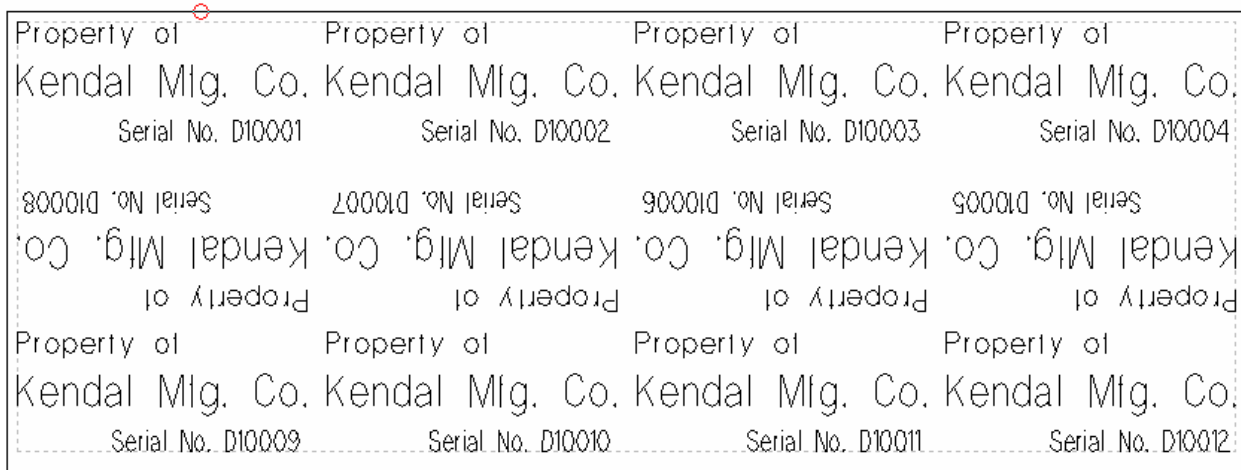


Figure 3-12 Completed Job

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. Instead, the matrix window will place our work in what it calls "Layers". Each layer will have the number of nameplates that we specified for the matrix, and each layer will be sent to the engraving table and engraved on its own piece of material. The total number of layers will be that required to complete the total number of nameplates.

As an example, if we specified a 3 by 2 matrix for this job, we would need two layers, or pieces of material. GravoStyle would send two jobs to the table (one for each layer) and we would have to place a new piece of material on the table before starting the second job. This is a powerful feature for those occasions when we want to engrave more pieces with differing text than can fit on the table at one time.

WHAT WE'VE LEARNED

In this lesson we've learned:

- ... How to work with variable text in a matrix design
- ... Different ways to bring our variable text into our job
- ... How to establish and use guide lines for visual assistance in positioning objects
- ... How to justify text
- ... How to use the layers feature of GravoStyle
- ... How to make use of GravoStyle's machining window's ability to optimize our matrix jobs for reduced machining time