



Vision Windows Training Manual

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Introduction

About This Tutorial

The Vision engraving program is one of the most simple, yet powerful engraving programs on the market. Follow this tutorial, and you will see how easy it is to get started engraving. Most of your time will be spent in the engraving program. At the end of the software tutorial, you will find the basics of getting started actually using your table to engrave.

Remember, your engraving manual and table and control unit manual will provide even more useful information. It will guide you in the installation, setting up and use of VISION.

It is recommended that you follow the manual from the start and try to read through it like a text book to enable you to understand the various functions available. Don't worry if you do not fully understand what is being said as it may be explained in greater depth later in the manual. If you are already familiar with VISION, this manual can be used as a reference manual via the table of contents and the index, which will direct you to the specific areas. Once familiar with VISION, you may find it wise to read the manual again to get a better understanding of VISION's features and to pick up the many suggested shortcuts of VISION that may save you extra time.



CHANGES: Some of the screens may differ slightly as new versions come out.

Help

Vision is making a strong effort to make the Vision Windows F1 help file the best in the engraving industry. As new updates come out, the help files will be updated.

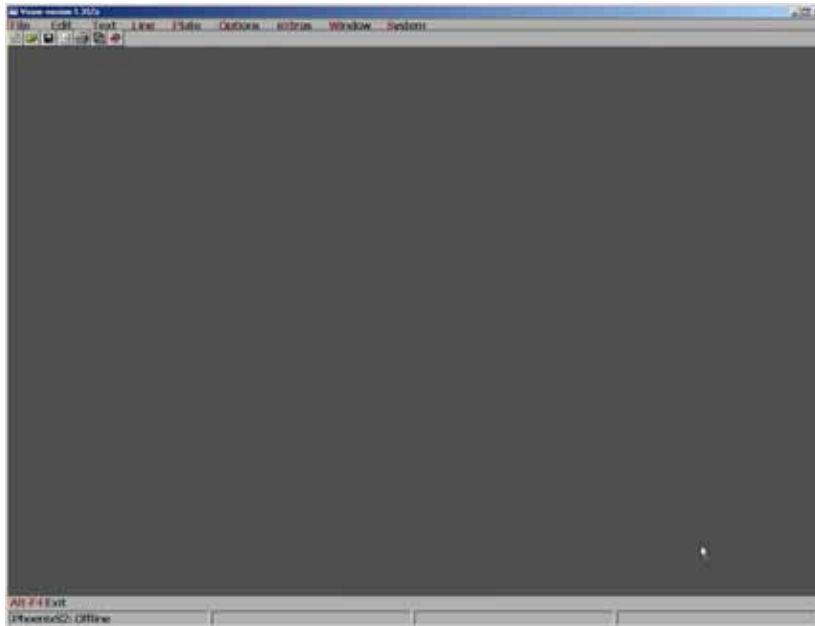
To access the Help File, just press F1 while in the Vision program. Click on the Help Topics box and you will get a complete listing of help features. Most of the manual, plus a lot more topics are included in the Vision Help File.



Vision Windows Help Screen

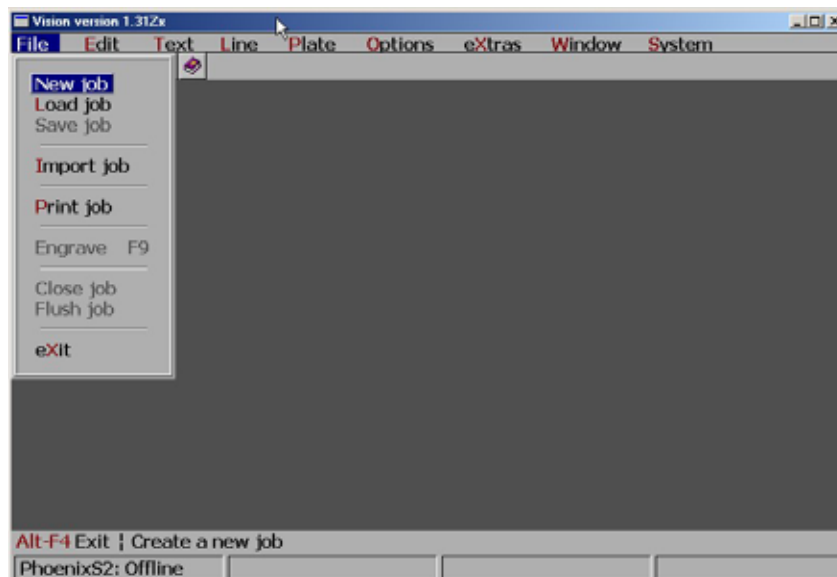
Getting Started – Initial Screen Layout

After you start the Vision engraving software from your Windows desktop, this is your initial screen. Note the 'status' at the bottom of this screen. VE-810; Off-line. The table used is a VE-810 and the table and program are not communicating, or 'off-line'. On your computer it should say 'your table': Waiting.



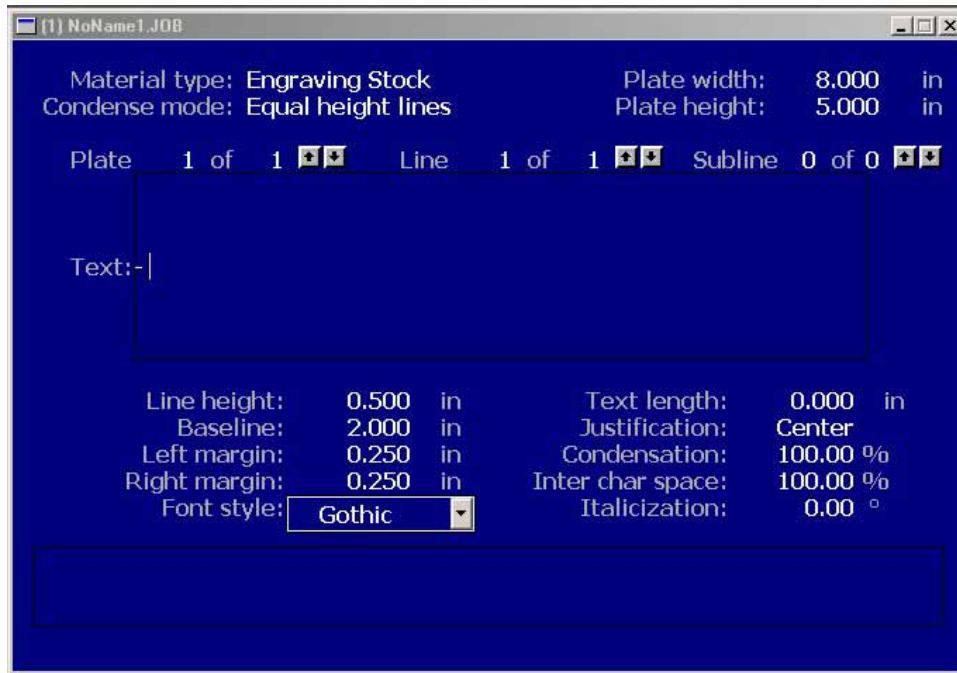
Initial screen layout

To start a new job, use the mouse and click on File->New Job. The keyboard short cut is ALT+N.



Pull-down File Menu to Start New Job

You are now ready to input the data for your new job.



Vision Screen with New Job

Engraving Terminology

Before you start inputting data, let's review the engraving terminology used in the New Job screen.

Plate Width

The actual width of your engraving plate

Plate Height

The actual height of your engraving plate



Figure 01: Plate Width and Height

Baseline

The distance or measurement from the bottom of the text or object line from the top of the page



Figure 02: Baseline

A formula for determining the Baseline is

$$\text{BASELINE} = [(\text{PLATE HEIGHT} - \text{LETTER HEIGHT}) / 2] + \text{LETTER HEIGHT}$$

Left Margin

The distance from the left side of the plate to the left edge that the lettering/object is allowed

Right Margin

The distance from the right side of the plate to the left edge that the lettering/object is allowed.



Figure 03: Plate Width & Height

Line Height

The height of the letter/object.



Figure 04: Line Height

Font Style

Also referred to as lettering or type style. The style of writing used. Once this field is selected our highlighted, use the space bar to toggle through the default fonts, loaded fonts or loaded logos.

Text Length

Actual width of lettering. Cannot exceed plate width minus margins.



Figure 05: Text Length

Justification

The horizontal positioning or alignment of text relevant to the margins. Text can be left justified, center justified, and right justified.



Figure 06: Justification

Condensation

Each letter style has its own individual characteristics. One of these is the condensation. Below are several font styles. Notice that each font has a different letter width or condensation. All of these fonts are shown at their normal, or 100% condensation. Increasing the condensation stretches the letter and decreasing condenses or compresses the letter/font style.



Figure 07: Condensation

Condensation is when you have a line of fixed length and you try to compress a line of text that normally would exceed that length. VISION will automatically adjust the condensation and inter-character spacing (the spacing between each character) to make the text fit.

Condensation Mode

- **Equal Height Lines** condense all lines with the same height equally, at the condensation rate of the longest line.
- **All Lines Equally** allocates the condensation of the longest line to all of the other lines.
- **Individual Lines** will treat every line in the job separately.

Inter Char Spacing

The spacing between the characters in a line.



Figure 08: Inter Character Spacing

Italicization

This allows you to italicize or slant your text to the left or right. If you type a positive number in, the text will slant to the right by the amount of degrees entered. If you type a negative number in, the text will slant to the left by the amount of degrees entered.



Figure 09: Italicization

Sample 1 job - The Basics 2 x 10 plate



Figure 20: Sample Job 1

Now that we've learned the basic engraving terminology, lets get started.

Sample 1 Job

In this lesson we will cover the following features:

- Create a job using manual layout
- Create a job using autolayout
- Using Italics
- Changing Fonts

Overview

In Sample 1, we'll create a basic 2 x 10, single line plate using both MANUAL EDIT, and AUTOPLATE LAYOUT. We'll learn how to change the Italicization of the lettering, as well as the font style.

Creating the Sample 1 Job Using Manual Layout

1. Start a new job, by selecting **FILE | NEW JOB**.
2. Enter the plate height (10" width x 2.00 height) in upper right of plate layout screen.
3. We could now enter the line height, baseline and margins in this screen. However, press F4 to get to the MANUAL EDIT screen. This screen is usually used when entering more than one line due to the ease of moving around the screen.
4. The formula I use for determining the baseline of a line that is centered vertically is as follows: $((\text{PLATE HEIGHT} - \text{LETTER HEIGHT}) / 2 + \text{LETTER HEIGHT})$. Since our required letter height is .70, using our formula $2.00 - .70 / 2 + .70$, we determine that our baseline is 1.35.
5. Enter these numbers for our MANUAL EDIT screen - Line Height - .70, Baseline - 1.35, Left & Right Margins - .50. Click on OKAY.

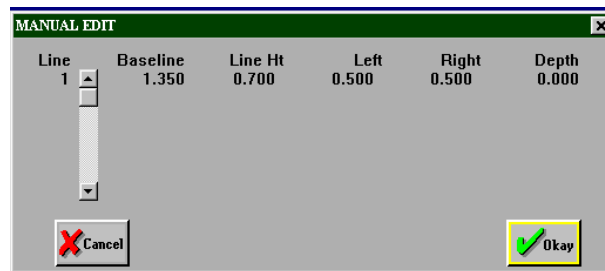


Figure 21: Manual Edit Dialog

6. At the plate layout screen enter text as: MIKE SIMPSON

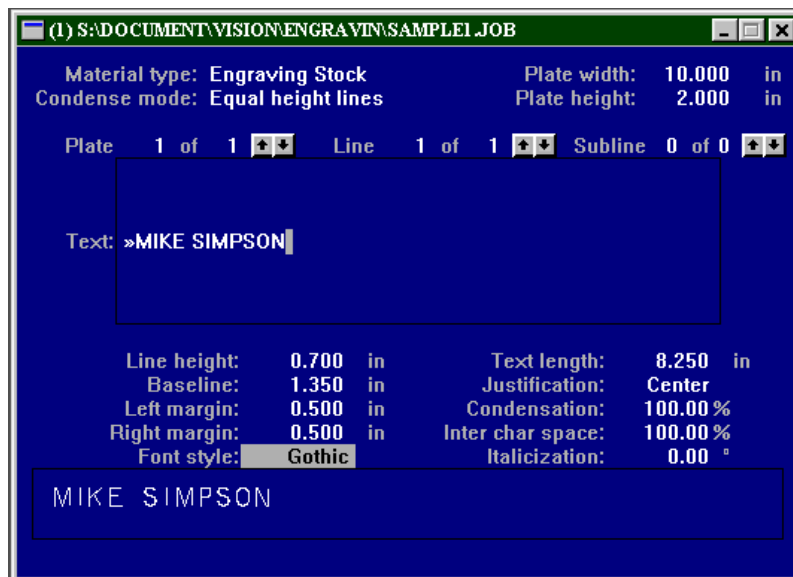


Figure 22: Plate Layout Screen

7. Your input should look like the plate screen above. Press F8 and your layout should look like the Sample 1 Job at the start of this lesson.

Create the Job Using Autolayout

- Clear out the previous job, and open a new job, FILE ->NEW JOB.
- Press F5 for the Autolayout screen and enter the layout. Enter the plate width (10") followed by ENTER, the plate height (2") followed by ENTER. Now press the DOWN ARROW or ENTER to get to the PLATE MARGIN DATA, and change the left and right margins to .50, and the letter height to .70. Press OK.



The default margins and line heights are usually used, but in this example we are showing that they can easily be changed in this screen to your job specifications.

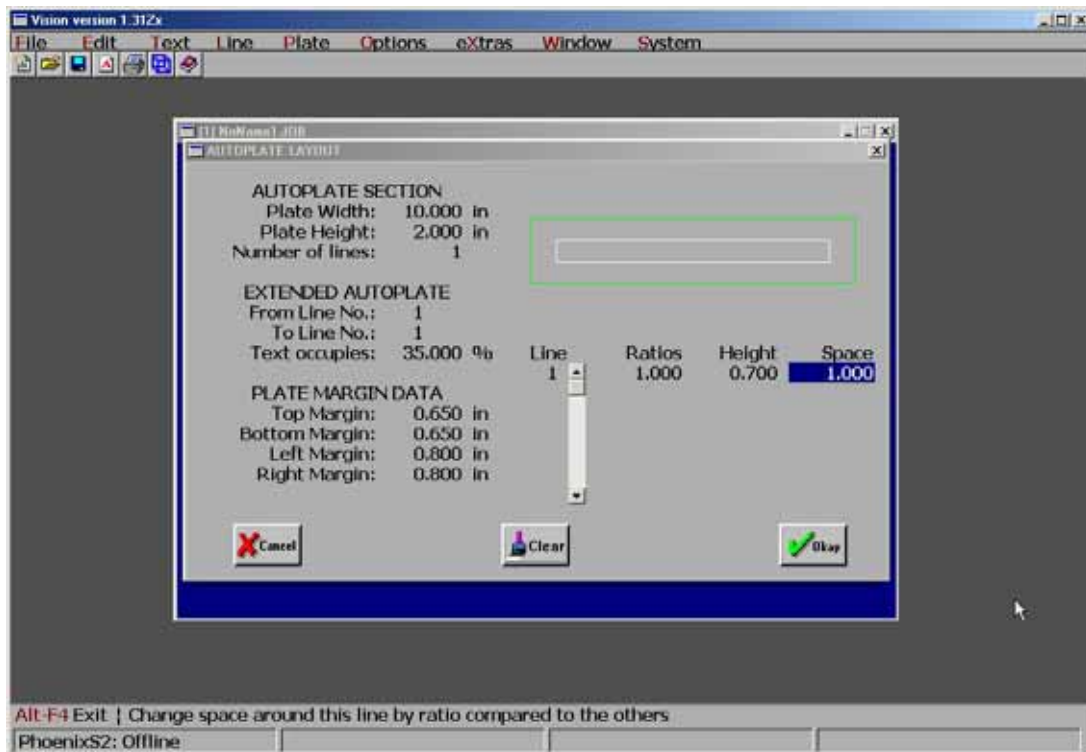


Figure 23: AutoPlate Layout Dialog

- Enter your text, 'MICHAEL SIMPSON', and press F8. Your layout should look like the *Sample Job 1*. Press OK. Notice that your baseline is figured automatically. All of the parameters should equal those that you did in the previous manual layout.

Most of the time you will use the Autolayout feature, however you need to understand the manual layout procedure so you know what the Autolayout feature is doing.

Using Italicization

To change the italicization of 'MIKE SIMPSON', click on the ITALICIZATION field and enter 15.00. Note: This field is asking for a percentage. If you input "point 15", it will italicize the line 15% of 1 percent.

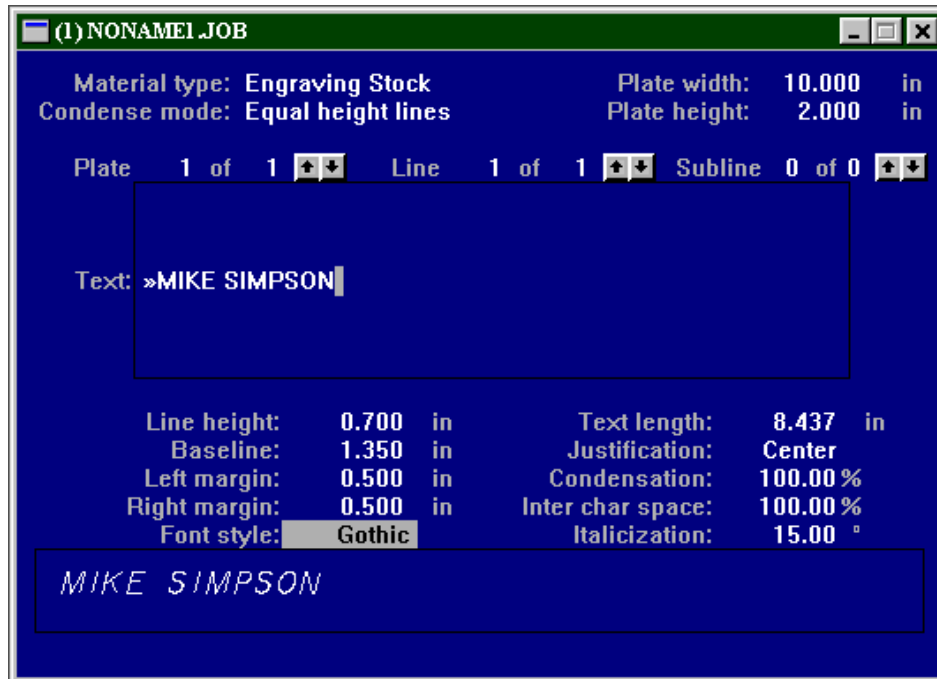


Figure 24: Sample 1 Job - Changing Italicization

Press F8 and your job should like the sample screen below.)



Figure 25: Sample 1 Job After Changing Italics To 15 Percent (15.00)

Notes

- I normally use 15 to 20 percent when italicizing. Try different percentages for different font styles
- You can also use minus numbers; this will tilt the letters/object to the left the specified percentage.

Changing Fonts

To change the font style, with your mouse click to the right of the Font Style, and the font name will be highlighted. Press the SPACE BAR until your screen looks like the example below (note arrow)

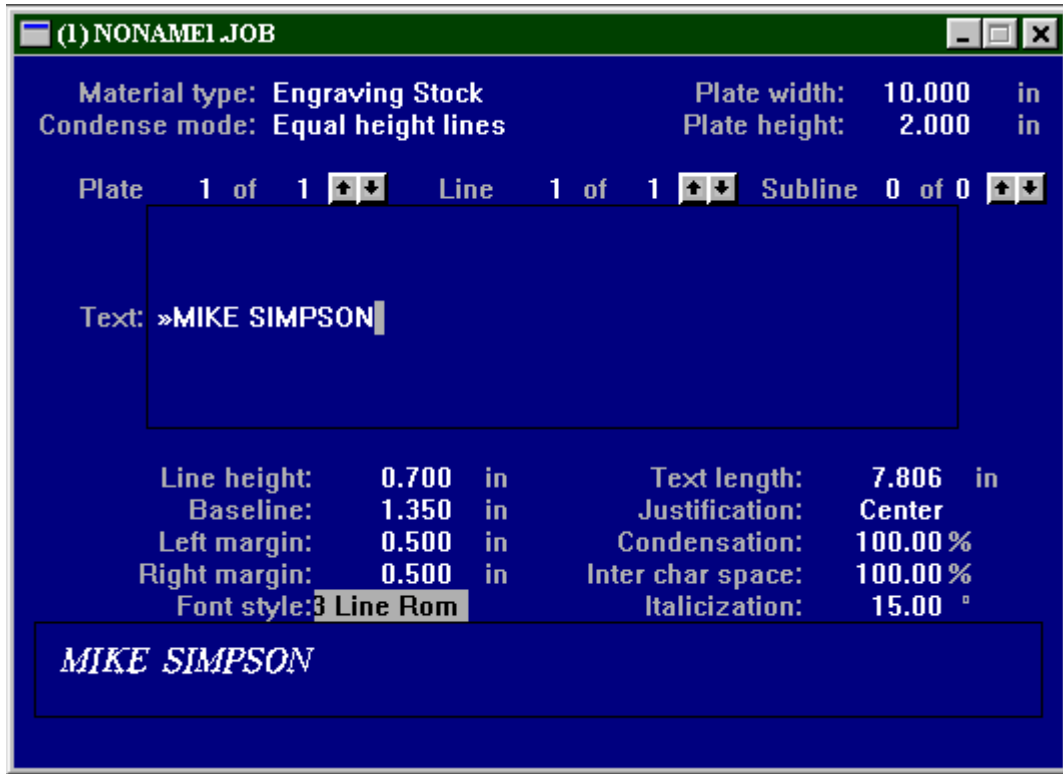


Figure 26: Plate Layout Screen – Changing Fonts

Press F8 and you should see the results of altering the font styles:



Figure 27: Example After 15 Degree Italics

Sample 2 Job - 4x6 plastic sign Using AutoPlate

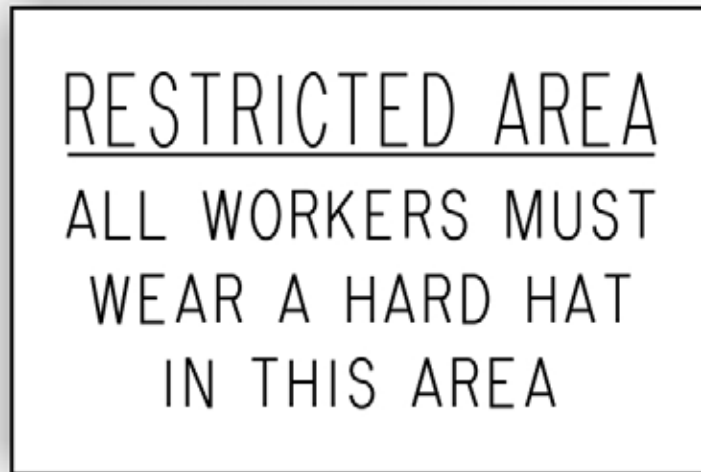


Figure 30: Sample 2 Job

In this lesson we will cover the following features:

Entering text using the insert key, prior to creating a layout
Autolayout

- Spacing
- Ratios vs. Actual Heights

Text Occupies - % Plaque - White Space

- Underling
- Borders

Overview

In Sample 2, we are laying out a job of four lines on a 4 x 6 plate. We'll start by entering our text prior to creating our layout. Sometimes, it is easier to enter our text prior to doing our layout to see how the wording fits on each line.

Then, we'll use AUTOPLATE LAYOUT.

We will use the Underline option to underline a text line.

Next, we'll add a border around the layout.

Then we'll learn how to save our job to our hard drive. Then, we'll load our saved job and return to AUTOPLATE LAYOUT. This feature allows us to continually adjust our layout for fine tuning. In AUTOPLATE LAYOUT, we'll work with the 'Text Occupies' feature to quickly increase the percentage that the actual engraving occupies on the plate.

Sample Job 2 Using Autolayout

Start a new job. Press F5 to get to the AUTOPLATE LAYOUT screen. Input the data a shown below.

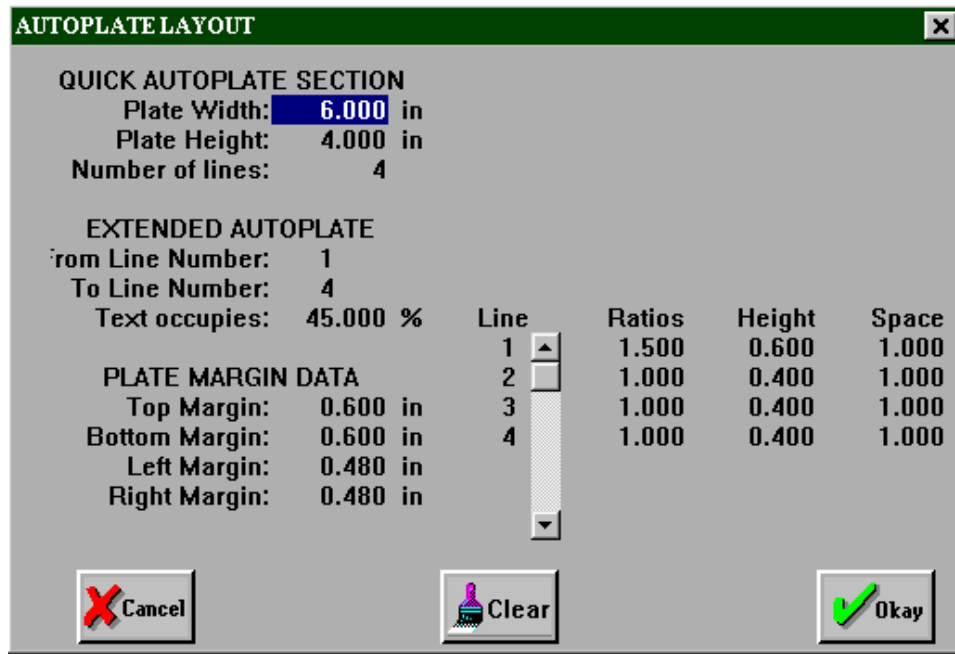


Figure 31: AutoPlate Layout

Input the text as show below:

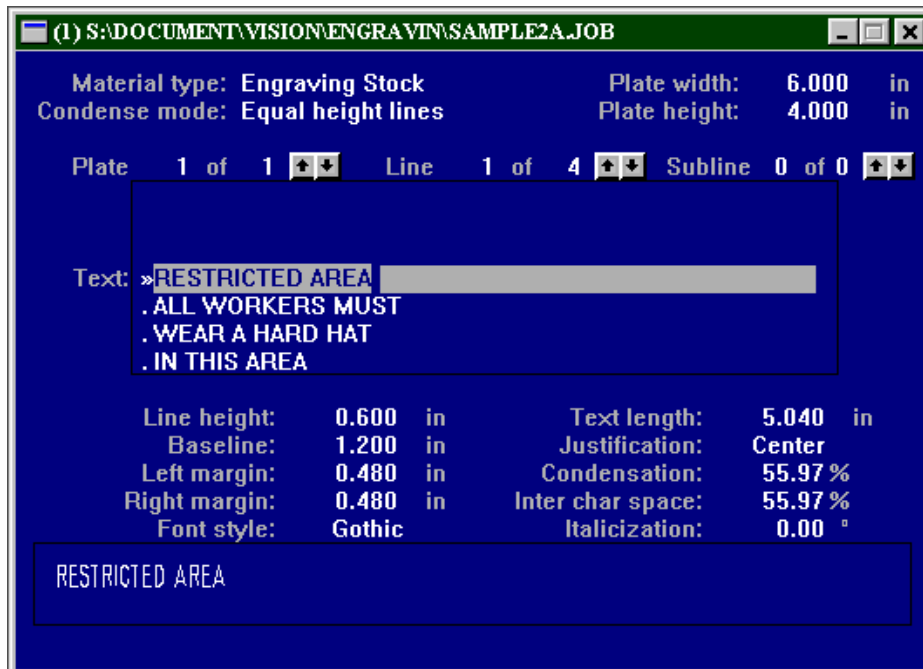


Figure 32: Plate Layout Screen With Text

Next, we need to underline line 1. Make sure the cursor on the first text line. then LINE -> Underline

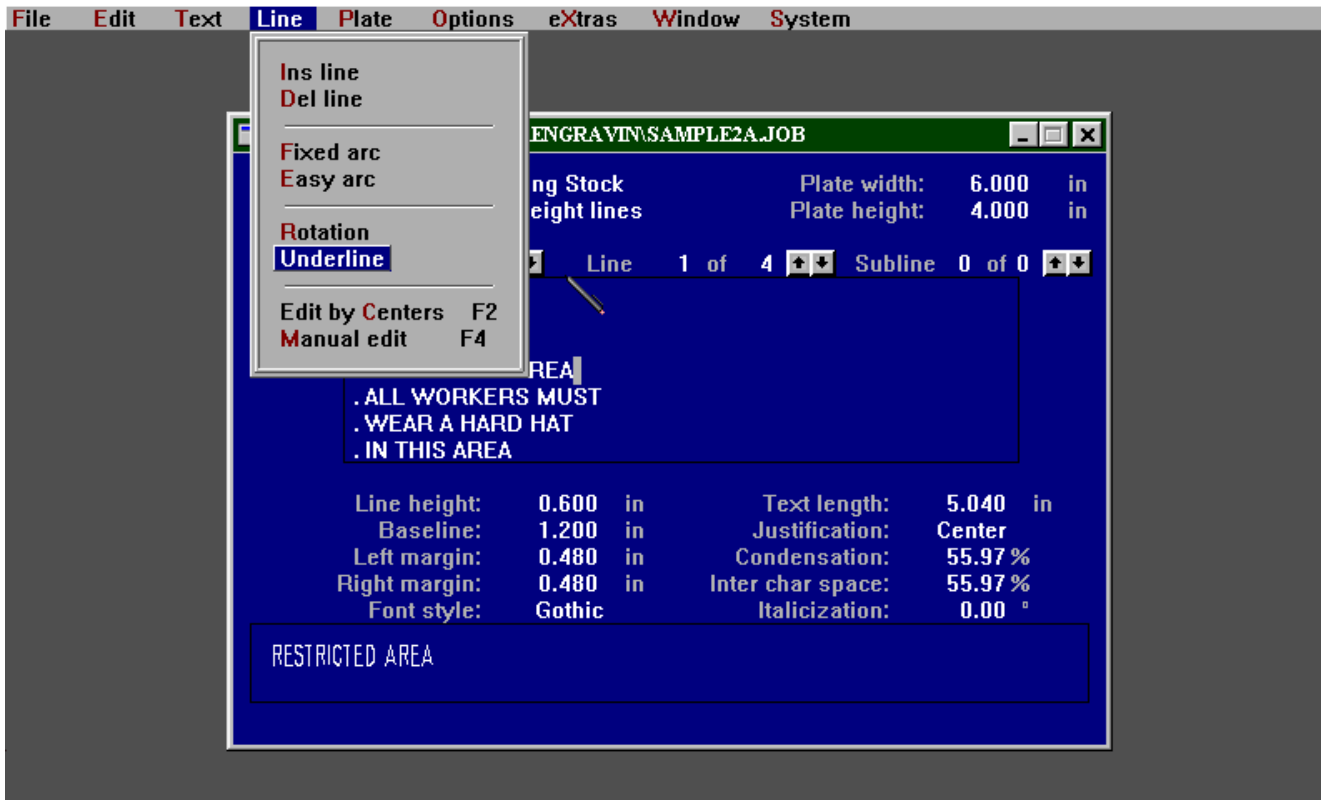
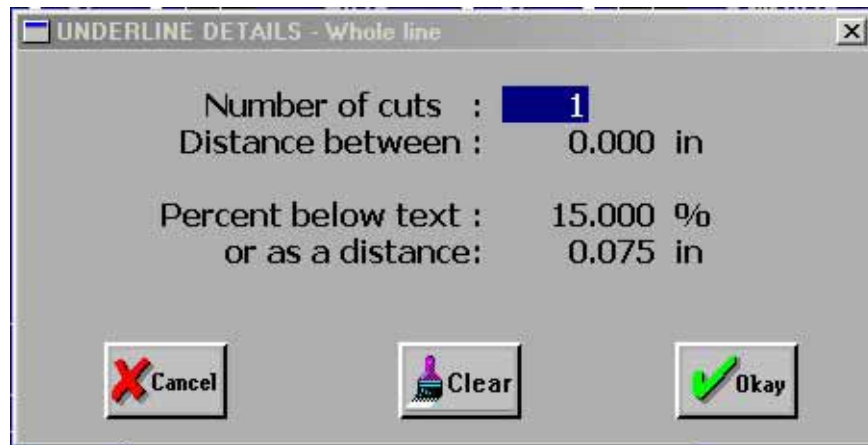


Figure 33: Underling Screen From Vision



This feature will underline the current line of text. The terminology for underlining is as follows:

Number of Cuts

Number of underlines you want. This allows you to make a wider cut for the underline without changing cutters. If you enter in 3 for the number of cuts, it will go over the underline 3 times.

Distance between

This allows you to specify how far apart the cuts are. (Ex. If you enter 3 for the number of cuts and .03 for the Distance between, you could use a .060 cutter to get an underline that is .18 wide.)

Percent below text

This number will let you choose how far below the text that the underline will be. The percentage you enter will be that percentage of the letter size below the line.

Or as a distance

This number will let you choose how far below the text that the underline will be. The number you enter will be that distance below the line.

Note: You can use either Percent below text or as a distance. You can't use both at the same time. When you type one in, the other is automatically calculated.

Borders

This feature will place a decorative border on your plate.

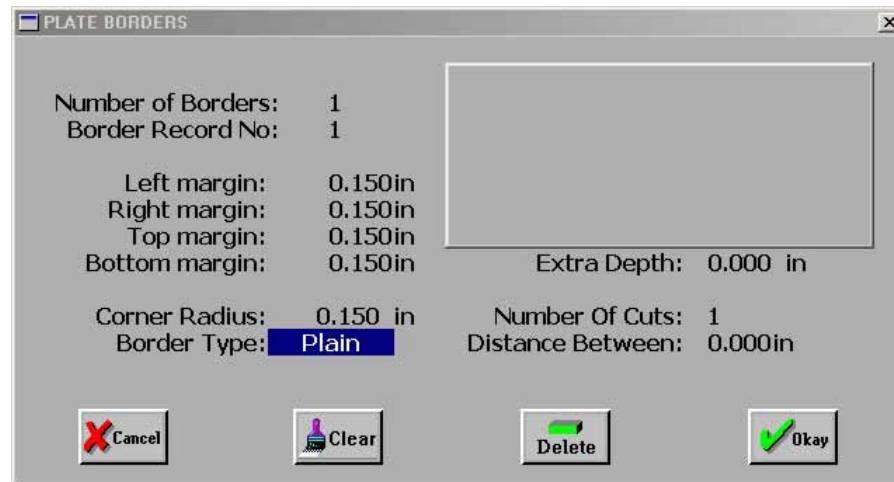


Figure 34: Borders Screen In Vision

Below are the various options in the Border dialog:

- **Number of Borders:** This is the total number of borders on the plate. Vision allows you to have up to eight borders on a single plate. You can make a sign look unique by using multiple borders.
- **Border Record No:** This is the border number that you are working on.
- **Left Margin:** This is the distance from the left edge of the plate to the left edge of the border.
- **Right Margin:** This is the distance from the right edge of the plate to the right edge of the border.
- **Top Margin:** This is the distance from the top edge of the plate to the top edge of the border.
- **Bottom Margin:** This is the distance from the bottom edge of the plate to the bottom edge of the border.
- **Corner Radius:** This is the radius amount of the corner of the border. The larger the number is, the "more round" the corner will be.
- **Border Type:** This is the type of border that you would like to use. There are eight different borders to choose from. The space bar will toggle through the different types of borders.
- **Extra Depth:** This will add a depth for the border. It is used if you want to use the border feature to cut out your plates in a multiple plate instead of engraving a border. Enter the depth you would like to engrave. This will usually be the thickness of the material you would like to cut out.
- **Number of Cuts:** This will make multiple passes of the border to give it a different look. It works with the item below.
- **Distance Between:** This is the distance between the multiple cuts as described above.

Here is our complete layout after adding a plain border with margins of .015 all the way around:

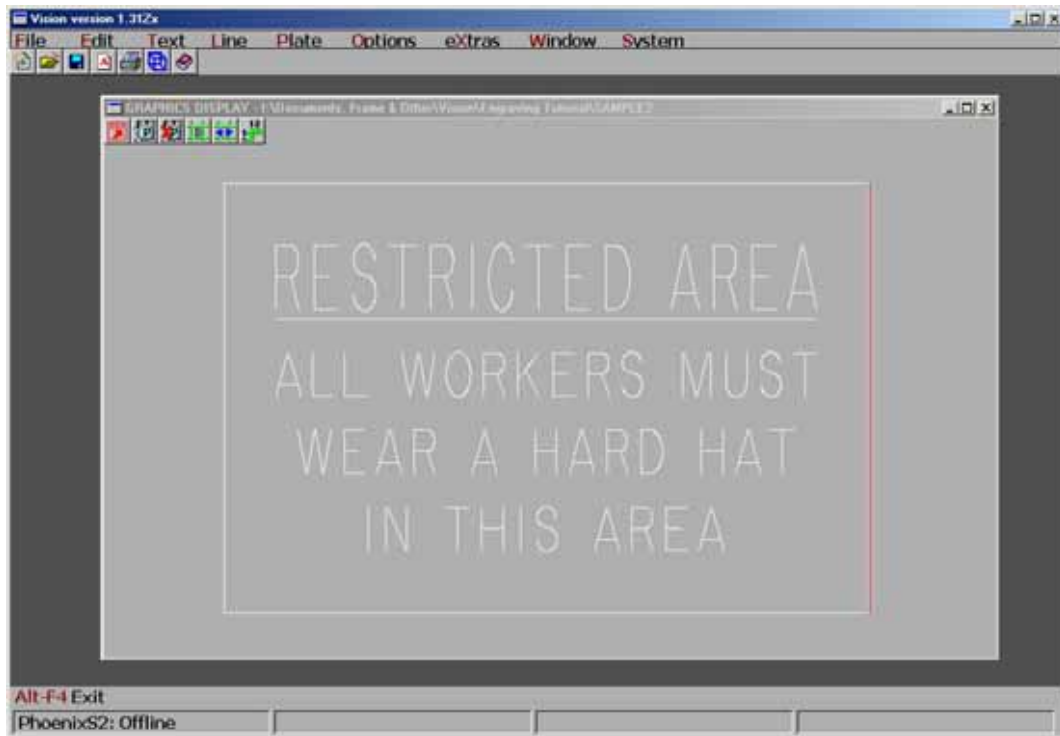


Figure 35: F8 Screen Display

Saving A Job

This feature allows you to save a job to your computers hard drive or to a floppy disk. Selecting this function brings up the Save Layout dialog.

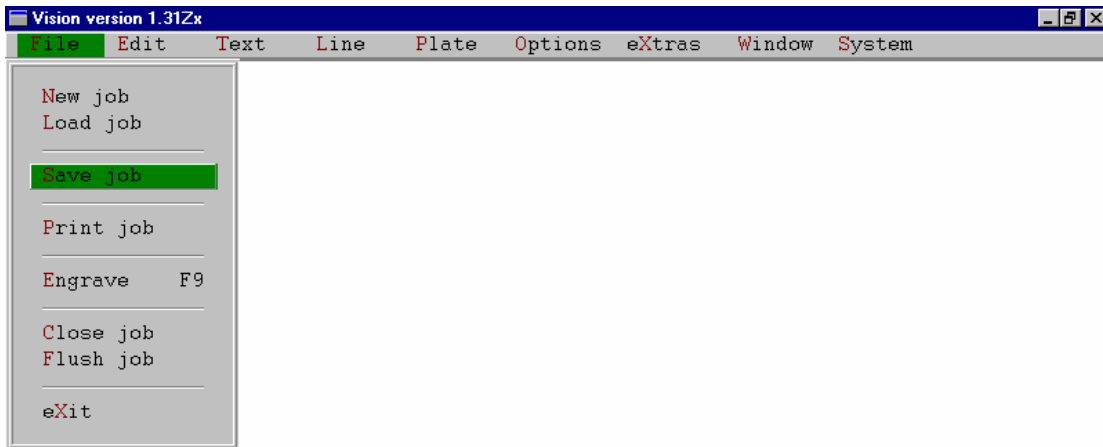


Figure 36: File | Save Job Menu

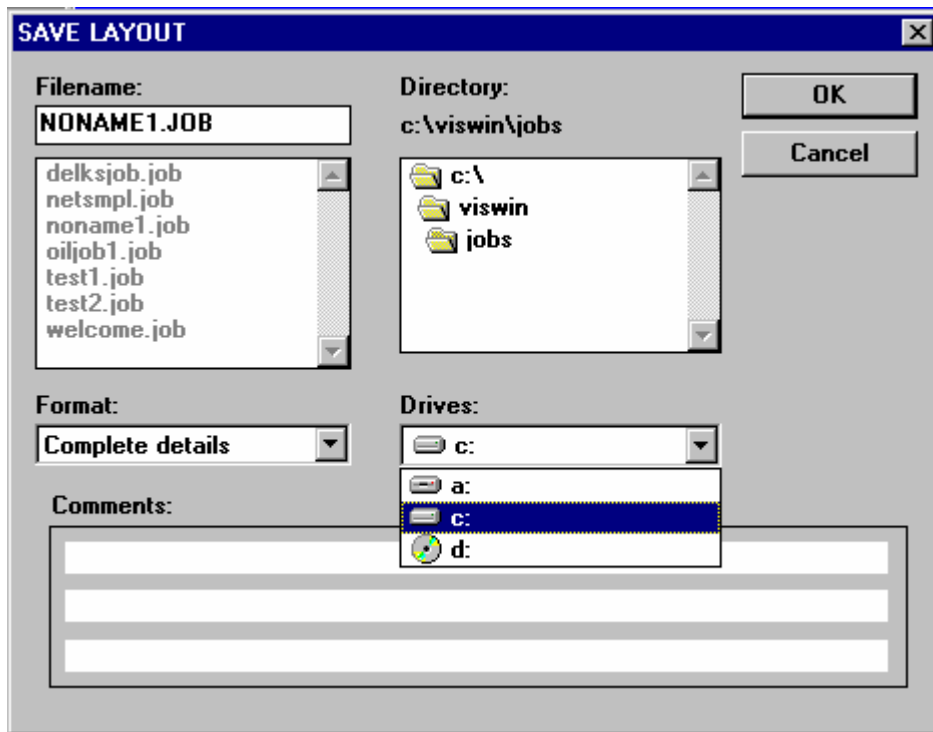


Figure 37: Vision 'Save Layout' Screen

You will need to type the filename and click OK. If you would like, you can enter in any job comments that you would like saved with the job in the Comments field. A typical item entered into the comments field is the cutter size that was required for the job you are saving.

There are two choices of Save Layout that you can choose: Complete details or Dimensions Only. This is selected in the format box. Complete details is the default; to select Dimensions Only, click on the down arrow to the right of the box.

Complete details will save the entire job that was created including all of the text in the job.

Dimensions Only will save the entire job except for any text that was in that job.



Vision defaults the Job Load and Job Save directories to your hard drive C and in a directory called \Viswin\Jobs. If you would like to change the default Job Load and Job Save directory, you must do the following. Go to the Windows Start Menu, then to Programs, then to Vision Engraving Software and click on Edit Vision defaults. This will bring up the Cipher.sys file into the Windows Notepad. Go to the section in the file that says Default Job Load Directory and change it from C:\VisWin\Jobs to the drive and directory that you installed Vision into. You will also need to change the Default Save Load Directory.

Clearing the Job Screen

To get rid of open jobs, you can either click on the 'X', or go to FILE -> CLOSE JOB



Figure 38: Close Job Menu

Changing Our Layout with Autolayout

Go back into autolayout and do 2 different changes with % of plate; change from 45 to 30, then to 60.

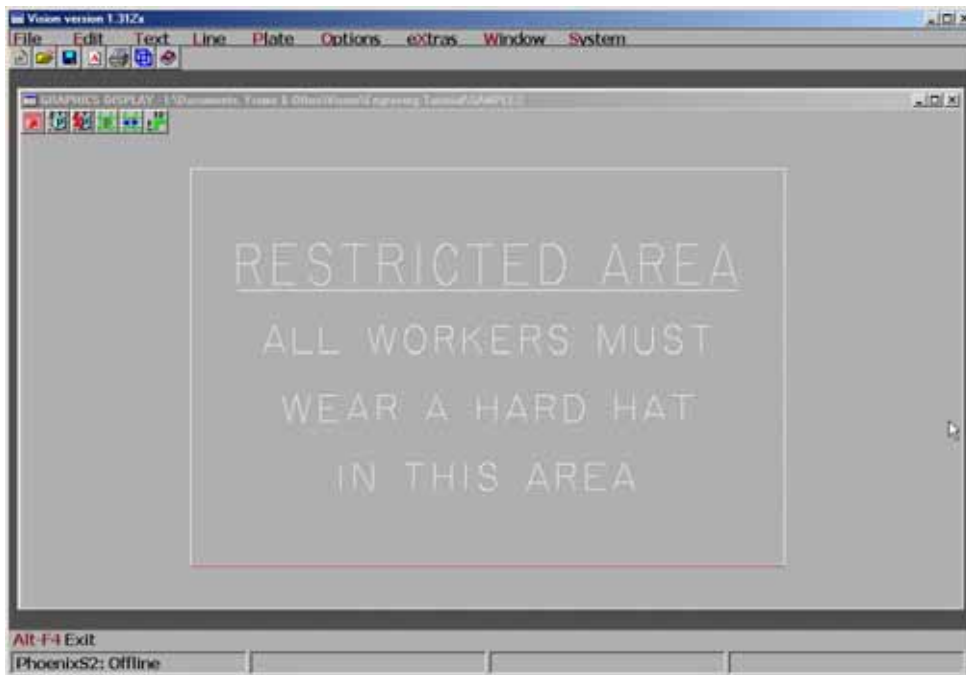


Figure 39-A: Sample Job 2 at 30%

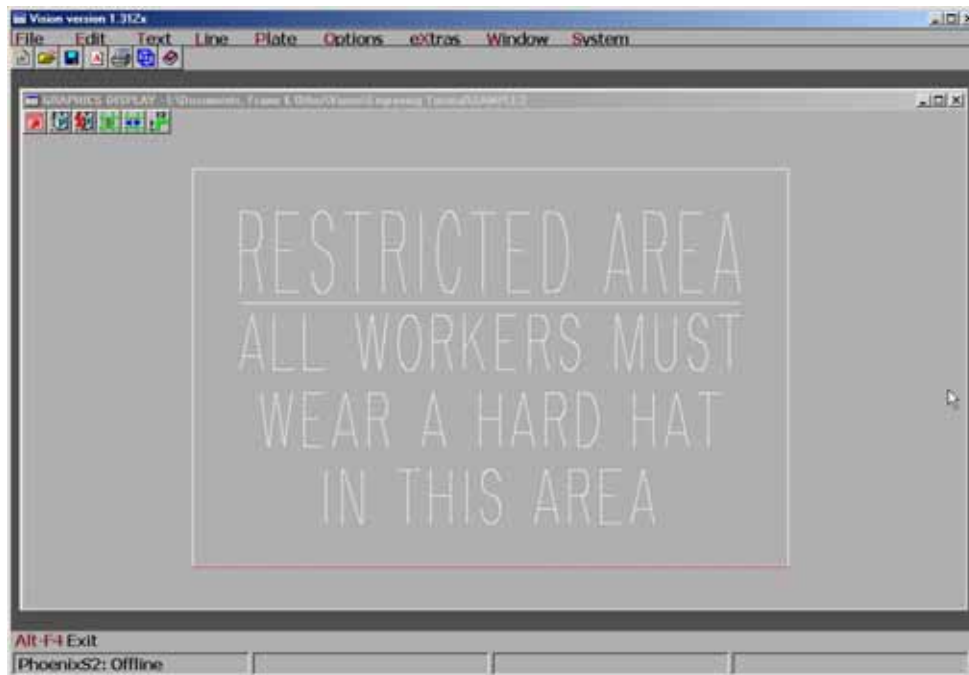


Figure 39-B: Sample Job 2 at 60%

SAMPLE 3 - 1 x 3 with a logo



Figure 40: Sample 3 Job

In Sample 3 we will be using the following features:

- Autolayout
- Inserting A New Line
- Loading A Logos
- Use the Line Rotate Option

Overview

In Sample 3, we will create a 2 line, 1 x 3 plate with a logo. AUTOPLATE LAYOUT will only allow us to create layouts with line vertically.

We'll create a 2 line layout for our text lines in AUTOPLATE LAYOUT, allowing space for the logo by increasing the left margins of our text lines.

Then, we'll insert an line for our logo, and load the actual logo into the layout.

And, finally we'll save the layout to disk for use in our next lesson.

Using AutoPlate layout to create the layout

Enter the data as shown in the example below. Note the left margin of the lines. The players name and team name are offset to allow for the logo.

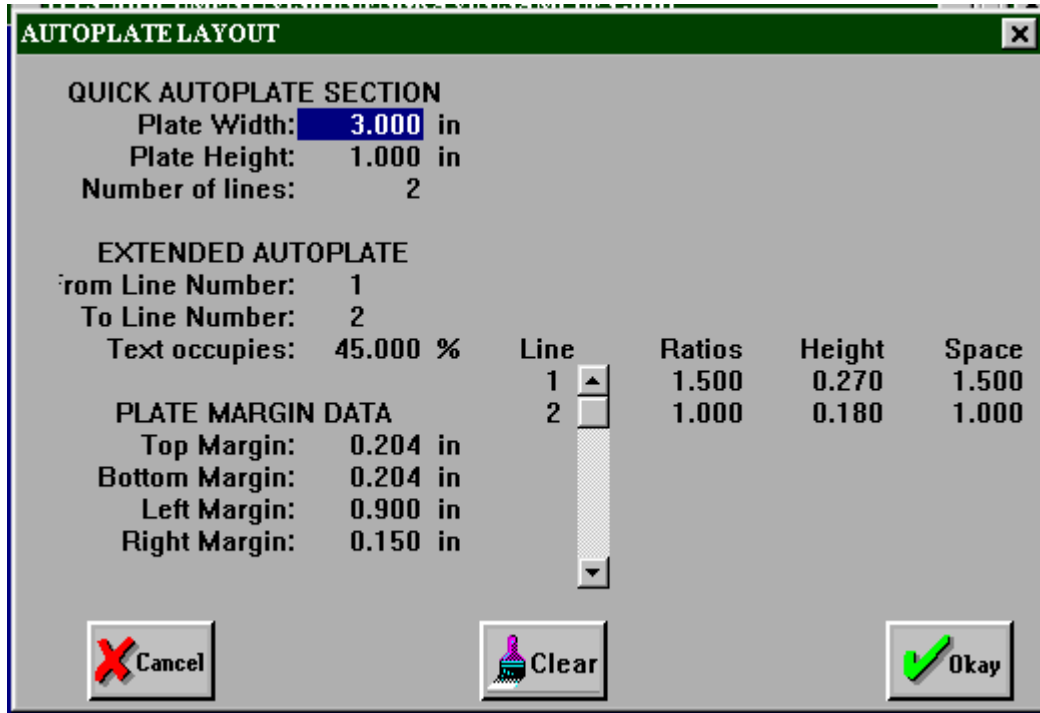


Figure 41: AutoPlate Screen

Enter text: line 1 REX HAMPTON, line 2 - ASTROS 1999

With cursor on 2nd line, LINE -> INSERT LINE to insert a line

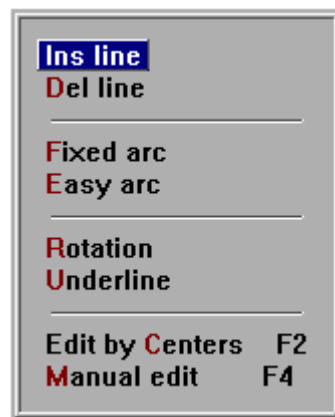


Figure 42: Insert Line Menu

Note

- When a line is inserted into a layout, it always is inserted below the cursor, or current text line.
- The newly inserted line takes on the parameters (baseline, text, margins, etc.) of the current position of the cursor.

With an 'A' entered for the Text of the newly inserted line, your layout screen should look like the example below:

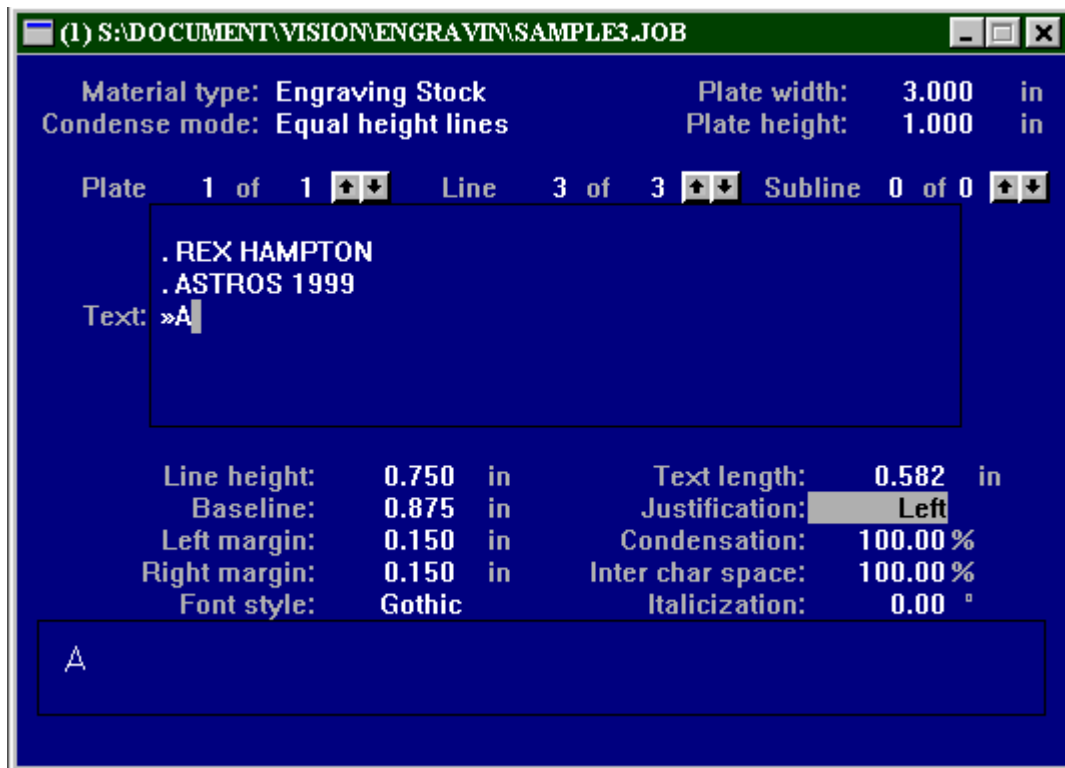


Figure 43: Plate Layout For Sample Job 3

Press F8 to view the layout prior to loading the logo



Figure 44: Plate After Adding 'A' For Logo

To load a logo, make sure you are on the text line for which you want to use a log. Then go to the menu option to load a logo, **TEXT | LOGO LOAD**.

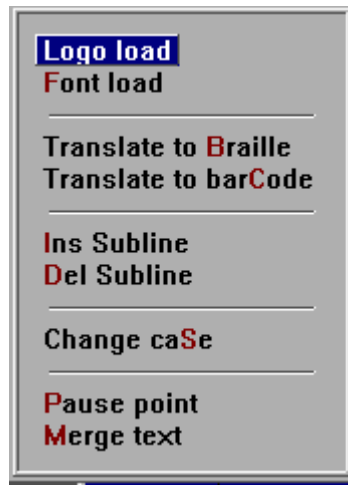


Figure 45-A: Logo Load Pull Down Menu

After you press enter, or click on Logo Load, you get the LOAD LOGO FILE dialog. We are using the 'basef1.plt' file. Either 'double-click' on the file name, or 'click' on the file and then press OK to load the file

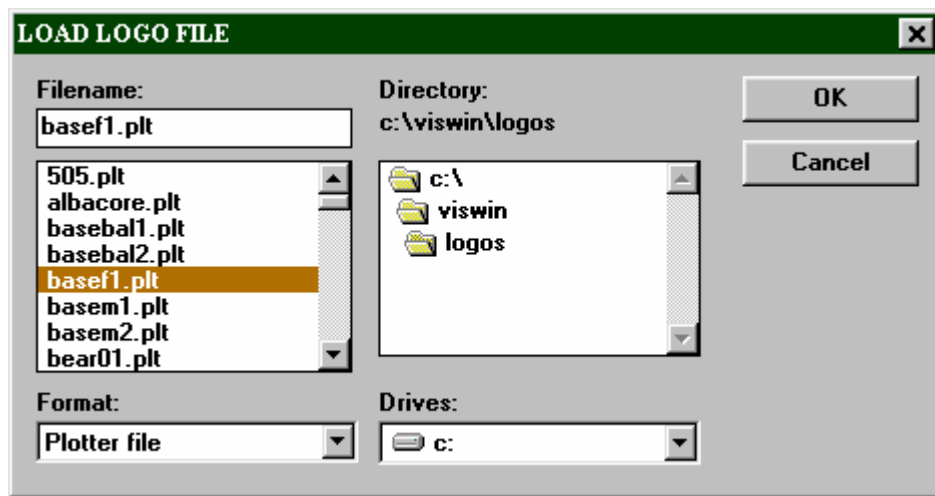


Figure 45-B: Load Logo Dialog

After you load the file, your job should appear as below.



Figure 46-A: Sample Job 3 with Logo

Line Rotation

Next we want to rotate or mirror the player to face our lettering. Make sure your cursor is on the 3rd line, or 'A' text. With your mouse, Line -> Rotation to get to the ROTATE THIS LINE screen. Click on the 'Reverse Engraving' box, and your screen should look like the example below.

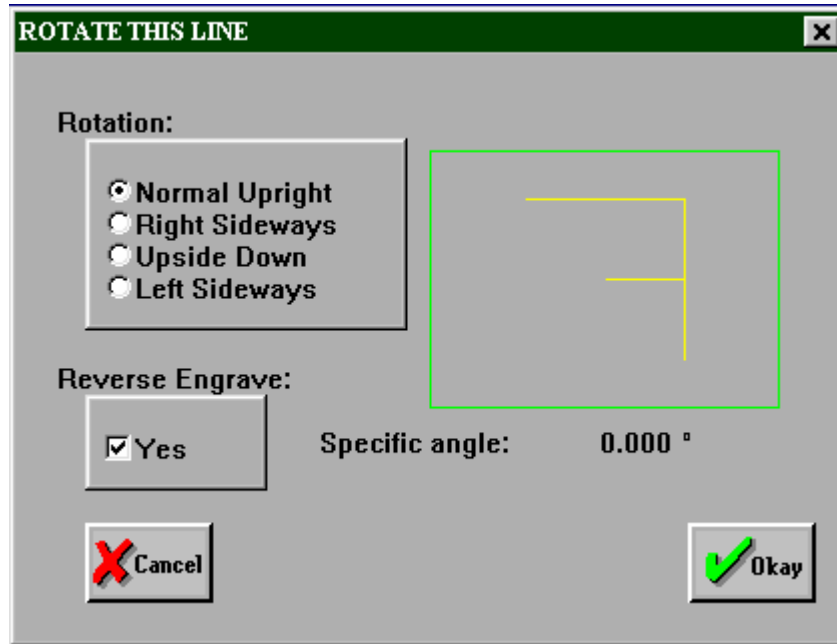


Figure 47-A: Line Rotation Screen

Press F8 and your plate should be like this one.



Figure 47-B: After Rotating Logo

Save your job as you did in 2nd sample job.

SAMPLE 4

 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
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 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
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 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999
 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999	 REX HAMPTON ASTROS 1999

In Sample 4, we will cover the following Vision features:

- Loading A Job
- Using the Multiple Option
- Block Graphics F7
- Estimate Function

Overview

In Sample 4, we will load Sample 3 that we saved in our previous job. Then we will use the Multiple Option to create 48 plates on a single 12 x 12 engraving plate. We will view the finished layout in the F7 Block Graphics Mode, and then use the EXTRA -> Estimates menu option to see how long our job will take to engrave.

Load Sample 3

Delete text on line 1 - 'Name'

Go to multiple screen (explain all on this screen).

In text entry screen Show how to change, name on each line
Show F8, stop in middle to show each of program
Show F7 for block graphics
F8 to show cutout lines
Estimate
Save job as Sample 4

Multiples Time Saver

Here is a quick tip for using the Vision Multiple feature that saves a lot of typing. In our example we need 12 individual, 1" x 3" trophy plates for 4 separate teams. The standard way is to create a layout with 48 plates and change the text on each one. This new method saves time by only having to type each team name only one time.

COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS
COWBOYS	STARS	ASTROS	RANGERS

Figure 51: Multiple Time Saver

8. Create your 1 x 3 plate layout, and enter the first team name, COWBOYS.
9. In multiples, type in the material size you will be using. I am using a Phoenix 1212, so I enter 12 width and 12 height. This will allow me to do a total of 48 plates at a time.
10. Enter 12 for the number of plates for COWBOYS, and click on plates Go Down First. Press OKAY.
11. At the Text Input screen, change the name of plate 1 from COWBOYS to STARS.
12. In Multiples, change number of plateaus from 12 to 24. Press OKAY.
13. At the Text Input screen, change the name of plate 1 from STARS to ASTROS.
14. In Multiples, change number of plates from 24 to 36. Press OKAY.
15. At the Text Input screen, change the name of plate 1 from ASTROS to RANGERS
16. In Multiples, change number of plates from 36 to 48. Press OKAY.
17. At the Text Input screen, change the name of plate 1 from RANGERS to COWBOYS.

Notes

As you go through this example, press the F8 screen each time you leave the Multiple feature to watch your progress.

I used even numbers of plates for my examples, however you can increment by any number.

If you exceed the plates Per Sheet in the Multiples screen, you will not be able to view the extra names in the F8 screen, but Vision will engrave them on the next sheet.

Vision Layout Trick

Here's a time saver for using Vision's Multiple option, and engraving several different layouts in the same job.

ENametags is a local engraving company that specializes in control panel plates via the Internet, with a 1 day turnaround guaranteed on all orders. Most are .75 x 2.75 plates, with 1, 2 or 3 lines of engraving. A job may consist of 10-50 plates per order. ENametags uses the multiples option in Vision, and then scores the tags on their Vision engraving table.

Over the years, and with demands of 1,000 plates on some days, they have tried a lot of ways to increase production. Cutting out the tags on a table saw, and beveling was actually quicker, but it was too labor intensive for this husband and wife team. And, they tried engraving all of their 1-line tags, then 2 liners, and so on. But keeping the tags in order for a single customer was their incentive to come up with this innovative method.

Their solution was to create a single layout in Vision that would engrave either a 1, 2 or 3-line job. They first created a job with 6 lines of engraving. Line 1 had the parameters for a 1-line job, lines 2 & 3 were for the 2-line tag, and layout lines 4,5 and 6 were for the 3-line tag.

To do a 1-line tag, text was only entered on the line 1; no text was entered on lines 2-6 of that plate. For a 2-line tag, they entered the text on lines 2 and 3 only. And for a 3-line tag, they entered text only on lines 4, 5 and 6. Remember, if there is no text on a line, it isn't engraved.

Then, they made a multiple of their layout. With a 12 x 24 piece of material, this gave them 120 plates (0.25 margins for the top, bottom, left and right sides of the multiple plates to avoid cutting into the table). The job has 720 lines.

Here is a sample of 7 of the 120 plates:

PANEL A - FLUTE CONTROL
ACTIVATOR SENSOR
TIMER CONTROL
DAMPER ATMOSPHERIC PRESSURE CONTROL
PANEL B - ON/OFF
RESISTOR FLUX CONTROL KNOB ACTIVATOR

Figure 52: Vision Layout Trick Results

To keep up with jobs, a plate is actually engraved with the order number and # of plates on the order. Thus, when packaging, you would see 'Order #12345, 12 plates'. This plate marked the start of the order, and was also packaged with the order to help identify it.

SAMPLE 5 –Fixed Arc

Overview of this job

We are engraving a 2 x 2 medallion. As usual we'll start with Autoplate Layout and create the two arcing lines and the logo. Then we will insert 2 lines for the stars, and an additional 2 lines for the circles, which uses the utility font.



Figure 61: Sample 5 Job

In Sample 5 we will be using the following Vision features:

- Autolayout
- Fixed Arc
- Inserting A Line with Auto Insert
- Using Logos
- Using The Utility Font

Creating Sample Job 5

18. Start a new job, then press F5 for AUTOPLATE LAYOUT

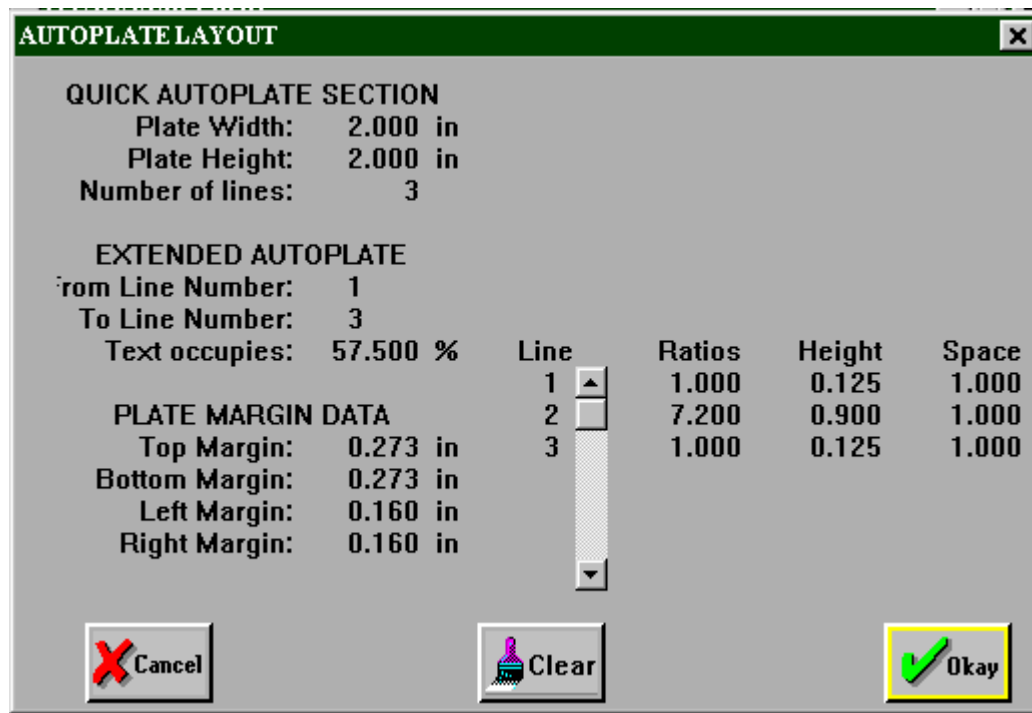


Figure 62: AutoPlate Layout for Sample Job 5

19. Create a 3 line layout, then change the letter heights as indicated in our example. Your margins should appear as in our example.
20. At the plate layout screen, enter the text for the layout
 Line 1- 1ST PLACE - TEAM EVENT,
 Line 2- A
 Line 3- ALLSTAR LANES 1999
- Put the cursor on line 1 and go to **Line -> Fixed Arc**. Enter the following data:
 - X-Center 1.00 where the arc is from left to right on our plate. It is calculated from the left side of our plate.
 - Y-Center 1.00 where the arc is from top to bottom on our plate. It is calculated from the top of our plate.
 - Radius .80 the radius of the arc. The radius is measured from the center point of the arc (X & Y Center) to the inside, or bottom of the text.
 - Start (-80) the degree amount that the arc will start.
 - End 80 the degree amount that the arc will end.
 See the illustration on the next page for the Start and End degrees on a circle

2. With the cursor on the '1' of 'Line 1 of 3', press the [PAGE-DOWN] key twice to get the line 3, the second arced line. Enter the data as indicated below:
X-Center 1.00, Y-Center 1.00, Radius .80, Start (-100), End (-260). View your layout.
3. With the cursor on line 3, press the INSERT key on your keyboard. You should see the green 'Auto line insert on' message just below your text lines.
4. Now press the [ENTER] key 4 times. Lines 4 & 5 will be for the stars, and Lines 6 & 7 for the Utility Borders.

Unlike the **Line -> Insert Line** from the menu which will insert a line below the current text line, this option will insert a line only at the end of the layout.

5. Change the parameters for lines 4 & 5 (our stars) as indicated:

Line #	Letter	Ht	Baseline	Left Margin	Right Margin	Justification
4	.125	1.0625	.075	0.00		LEFT
5	.125	1.0625	0.00	.075		RIGHT

6. Change the **Font Style** of lines 4 & 5 to the Utility font, and use the 'H' symbol for the stars.
7. Change the parameters for lines 6 & 7 (our circles from the Utility font) as indicated:

Line #	Letter	Ht	Baseline	Left Margin	Right Margin	Justification
6	2.00	2.00	0.00	0.00		CENTER
7	1.45	1.725	0.00	0.00		CENTER

In figuring the letter height and base line for line 7, I wanted a .075 border between the outside circle and the top of the lettering (.1250), and a .075 border between the bottom of the lettering and the second circle. Thus the top margin would be $.275 = (.075 + .125 + .075)$. Since we want the circle centered, we would subtract the top margin and the bottom margin from the plate height to get the letter height, $1.45 = (2.00 - .275 * 2)$. The baseline would be the letter height plus the top margin, $1.725 = (1.45 + .275)$.

8. Change lines 6 & 7 **Font Style** to the Utility font, and use the 'L' symbol for the circles.



The circles could have been created with borders function, but I wanted the ability to turn them off. Deleting an 'L' for the Utility circle symbol was quicker than having to delete the border. And once the border was deleted, the parameters would have to be reentered

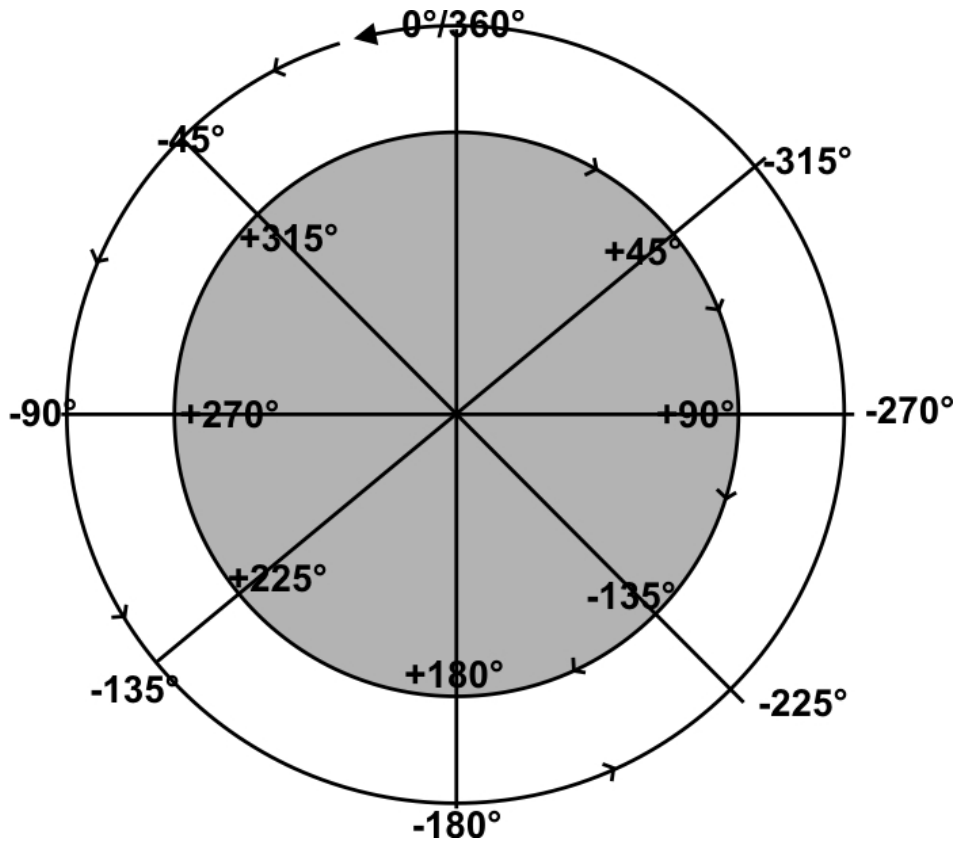


Figure 63: Illustration For Determining Degrees for the Starting and Ending Point of A Fixed Arc In Vision

Using the Utility Font to Learn More about the Basics of Engraving

EXAMPLE 1 - Creating A Border

There is an option in your Vision software that creates a border with ease. Just go to **PLATE | BORDERS**, select the border you want, enter the margins and click OK. You have an instant border.

But to teach you more about engraving, let's create a single line border using the Utility font. The Utility symbol for a box is the 'J' key. See if you can create a border on a 6 inch wide x 8 inch tall plate. The border is to be .25 from each edge of the plate. Take the time to try to create the example below before looking at the answer.

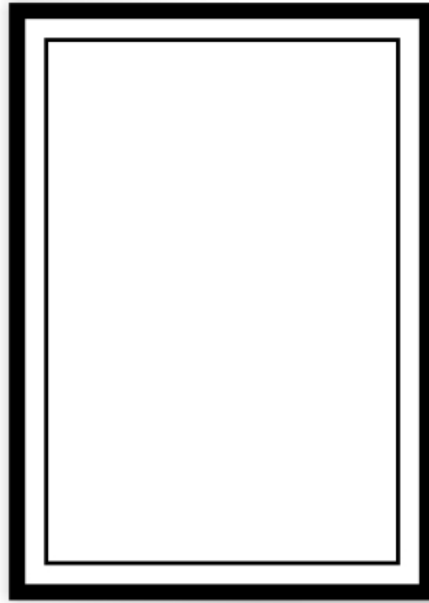


Figure 70: Border Using The Utility Font

How To

Using Autolayout or Manual layout, enter a one line layout using a 6inch wide x 8 inch tall plate. The left and right margins will be .25. Since you want the border to be .25 from the top and .25 from the bottom, you will need to enter the letter height as 7.50. To place the border .25 from the bottom of the plate, use a base line of 7.75. Using the Utility font, select the "J" for the text.

Again, the border option is the easiest way, but this lesson will teach you about the basics of engraving and better uses of the Utility font.

EXAMPLE 2 - Underlining

Again, we have an underline function in Vision, but it is limited to the complete line. Let's try to underline a word, or a part of the line. Create a 8 inch wide x 3 inch tall plate, with one line of text that is 1.5 inches tall, a baseline of 2.10, right and left margins of .50, and use the Gothic font with text that reads DO NOT ENTER. Try to underline only the words DO NOT. Take the time to try to create the example below before looking at the answer.



Figure 71: Underlining Using the Utility Font

How To

Enter you layout like normal, using **Autolayout** or **Manual Layout**. Next go to **Line -> Insert Line** to create a second line. The result will be another line added below the current line with the same specs (baseline, margins, etc.). Enter the letter 'C' for the text on line 2, and change the font to Utility. (see Notes below on the Utility lines). When you F8 (draw to screen), look close and you will see the underline as the bottom part of the letter 'T', in the word NOT.

Notice that the condensation is 38.36%, and the Text Length of the line is .575. This is assuming you have your Condensation Mode set a Equal Height Lines. With Equal Height Lines, and the second line having the same letter height as the first, Vision applies the condensation of the first to the second. To 'unlock' the condensation and let it be 'free roaming', either change the **Condensation Mode** to **Individual Lines**, or change the line height of the second line by .001 so that you don't have equal height lines. Now you will get an underline that is 1.50 inches long.

Next change the condensation to 999%. Vision will start expanding the line until it is limited by the borders you set, or until it reaches 999%. In our example, it used condensation of 466%, and the second line text length now matches the top line, 7.000. Now change the baseline of the second line to 2.20.

To have the underline under 'DO NOT', first change the justification of line 2 to 'Left', and start increasing the right margin value to get it under the words that you want underlined. I found that a 4.00 right margin worked perfectly.

Notes

- The Utility font has 3 lines, denoted by the A, B and C.
- The 'A' will be drawn above the baseline at a distance equal to the letter height (i.e. if the baseline is 4.00 and the letter height is 1.00, the 'A' line will appear 1 inch above the baseline, or at a baseline of 3.00).
- The 'B' will be drawn above the baseline at a distance equal to half the letter height (i.e. if the baseline is 4.00 and the letter height is 1.00, the 'A' line will appear .50 inches above the baseline, or at a baseline of 3.50).
- The 'C' will be drawn at the baseline of the line.

SAMPLE JOB 6 - 7.5 x 10 Plate

Overview of This Job

We will create a standard trophy plaque with Visions Autoplate feature with an emphasis on using ratios and text occupies

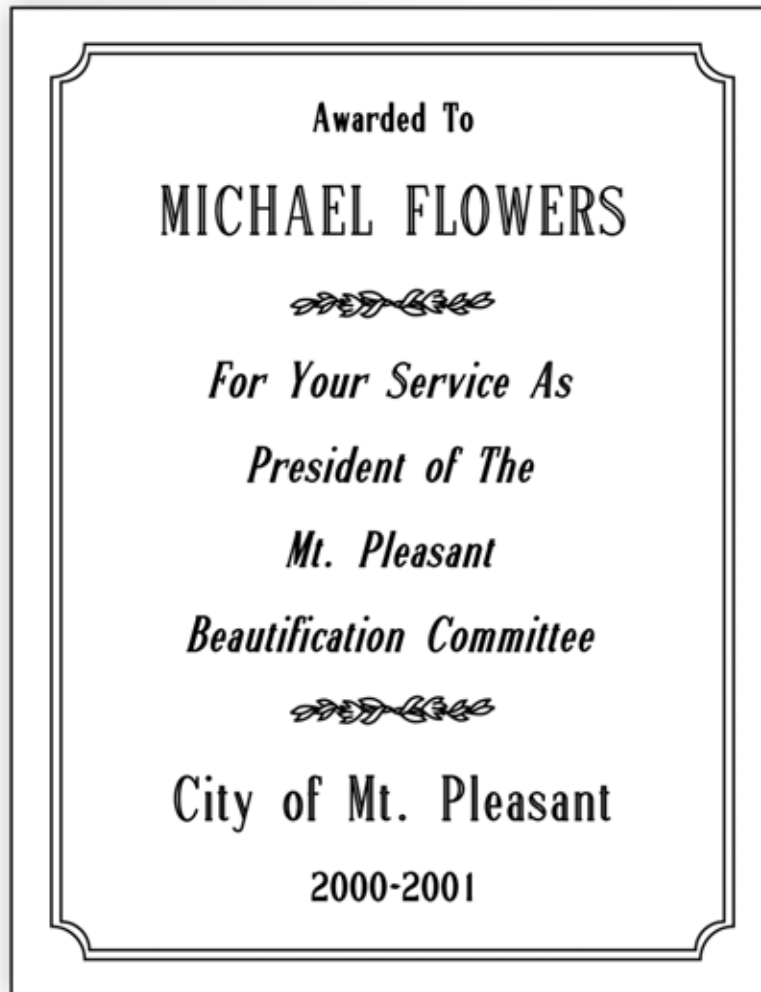


Figure 80: Sample Job 6

In Sample 6, we will use the following Vision features:

- Autolayout - Using Ratios and Text Occupies
- Using Italics
- Loading A Logo
- Border Option

Getting Started

In AutoPlate Layout I entered a plate size of 7.5 for the width and 10.00 for the plate height. After I entered 8 for the number of lines I clicked on OK. Now at the main layout screen, enter the text as I have show in the sample below. After F8, you should have the same layout as below. You may want to change all of your lines to the Century font so your layout will be similar to the lessons.

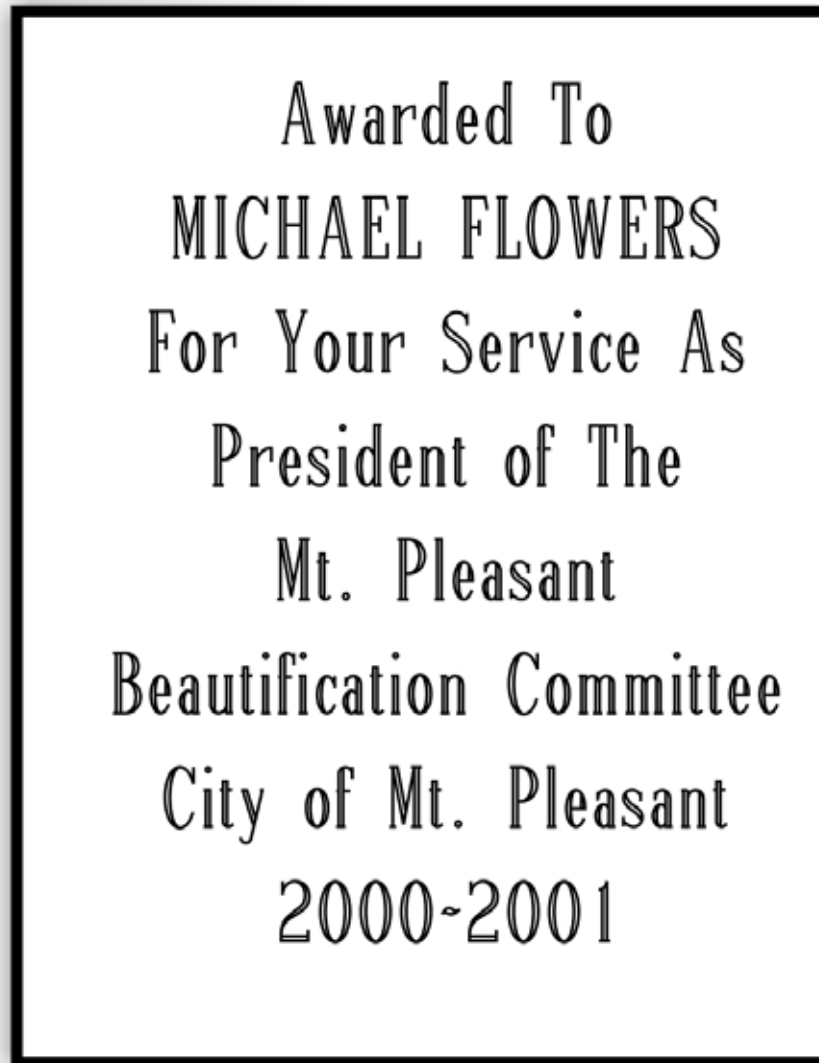


Figure 81: Sample Job 6 After AutoPlate Layout

Inserting Lines

Using ornamentals or ‘squiggles’ has almost become a standard for plaques. We could have allowed for the ornamentals in our original layout, but just in case you forget, here’s how to add them. With the cursor on line 2 (‘Michael Flowers’), go to LINE -> Insert Line and insert a line. Next move your cursor to the line with ‘Beautification Committee’ and again LINE -> Insert Line.

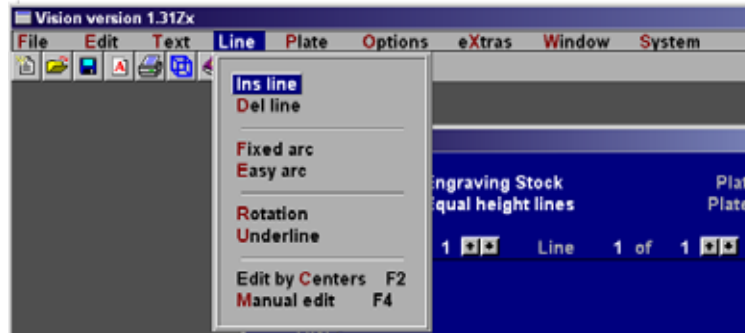


Figure 82: Insert Line Menu

When you insert a line into a layout in Vision, it duplicates the current line. It will have the same base-line, letter height, margins, font, autoplate ratios, etc. In the example below, I placed ‘XXXXX’ as text so that you can see Vision inserts a line (sample on left).

After you insert the lines, go to autoplate and you will see that the number of lines changed from 8 to 10. Click on OK. Autoplate will automatically insert them into your layout. In the text screen, place A’s in the inserted lines for your ORN048.PLT logo.



Figure 83-A: Before AutoPlate Layout

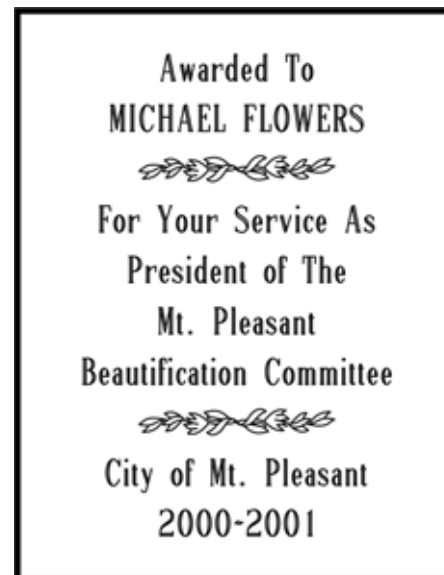


Figure 83-B: After AutoPlate Layout

Changing Ratios In Autoplate layout

Next, go to Autoplate layout and change the ratios for the line heights:

Line 1-1.00 Line 2-1.75 Line 3-1.00 Line 4-1.25 Line 5-1.25 Line 6-1.25
Line 7-1.25 Line 8-1.00 Line 9-1.50 Line 10-1.00

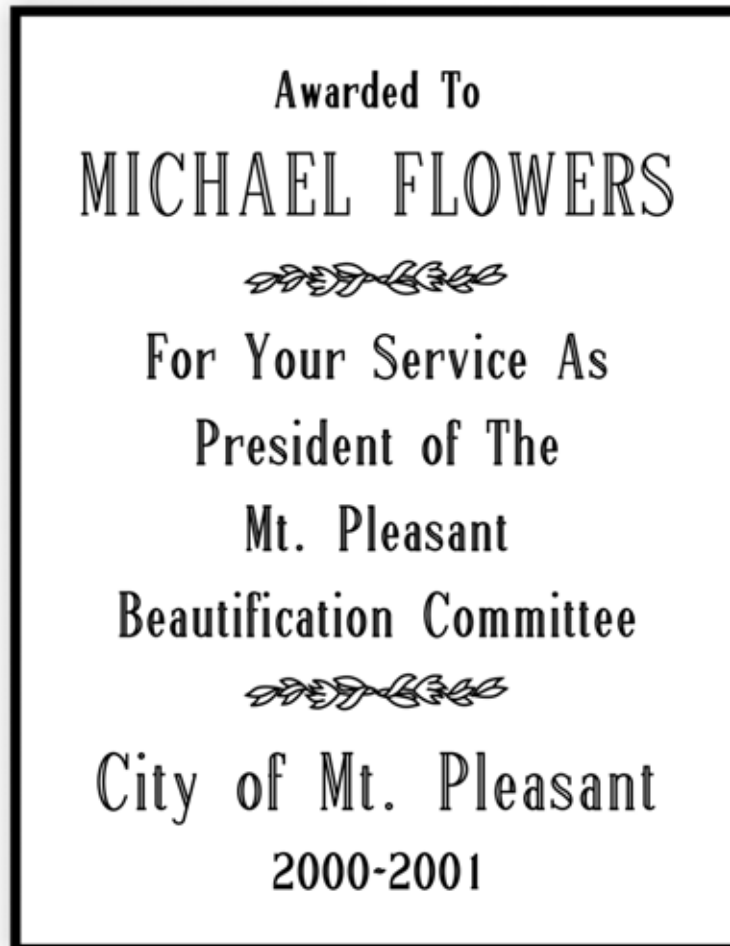


Figure 84: After Changing Ratios

Nearly every plaque I do is based on these ratios. Who gets the award usually gets a ratio of 1.75 to 2.00; the one who pays or who gives it gets 1.50; the saying or achievement gets 1.25, and the rest at a ratio of 1.00.

Depending on the ornamental I decide to use, I may have to adjust.

What ratios should you use? Whatever appeals to you! But the real trick is to continue to normally use the same ratios. Why? Your plaques keep a similarity, production time is quicker, and no matter what size of plaque you are doing, you use ratios. You don't constantly have to adjust line heights for different plate sizes. And training a new engraver is much, much easier.

Working With the Text Occupies Option in AutoPlate Layout

Now that you changed the ratios, you have one more option that allows your creative juices to flow. In some parts of the country, engravings like their plaques bold, like I've used in the first part of this lesson. However, a plaque is a lot like an advertisement on TV or in a magazine. Don't overfill the ad - it distracts. The same goes for a plaque. Use more white space, or area that isn't engraved

Vision's AutoPlate feature uses the opposite of white space - Text Occupies. To use more white space, use a lower percentage in Text Occupies. I changed the default from 45% to 35% in this layout.

Find out your preference. It's easy in AutoPlate.

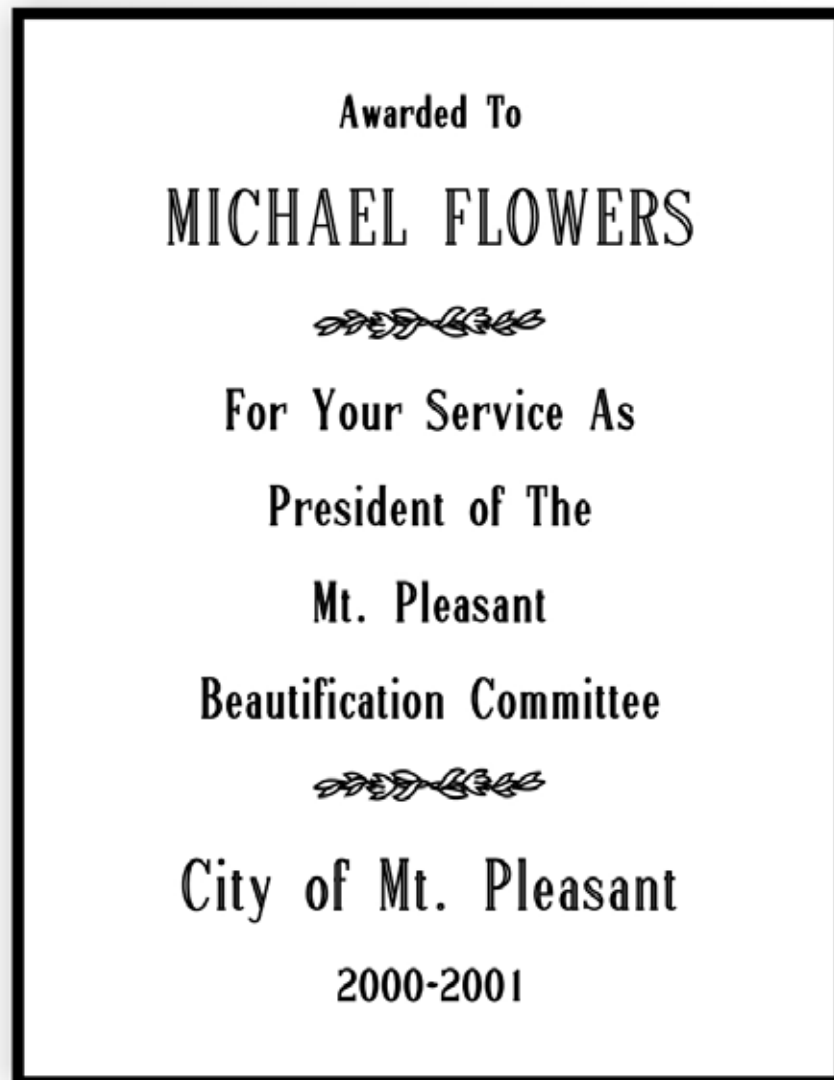


Figure 85: After Changing 'Text Occupies' In AutoPlate Layout

Adding a Border and Italicizing

I used one border in this layout. It has .15 for all the margins, .25 for the radius and I used the Scallop border.

And finally, I added my own personal touch by italicizing lines 4 thru 7 with 15 degrees of italicization. I normally italicize thoughts, deeds or sayings on plaques

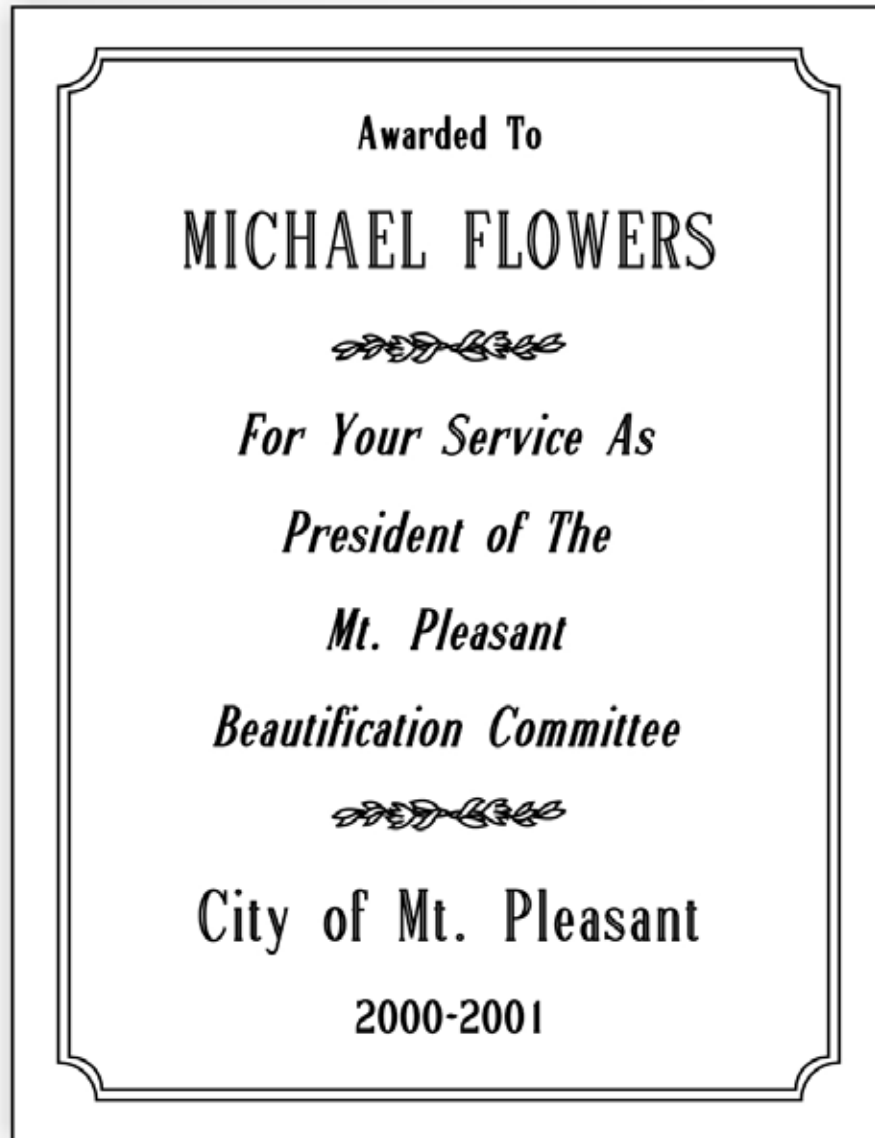


Figure 86: Sample After Italics and Adding A Border

SAMPLE 7

Overview of this lesson

We need a plaque with two columns of names. First we will create a layout with Autoplate layout, using the left column of names. Then we will insert additional lines for the second column of names. We will start with left and right justification of the names and, finally we will center justify the column names.



Figure 91: Sample Job 7

Sample 7 will use the following Vision Features

- Autoplate layout
- Inserting Lines
- Manual Edit

Creating A Plaque 7.5 wide x 10 inch wide with Auto Plate Layout

First, create an 11 line plaque. Use the ratios of your choice. Enter only one column of names.



Figure 92: After AutoPlate Layout and Entering Text

Adding the Second Column of Names with Line Insert

Place the cursor on each of the 4 names, starting with 'Mary'. Insert a line. Move the cursor down to the next name and insert a line. After you have inserted a line below each name change the justification. For the original four names, use Left justification. For the inserted lines use Right justification. Add the names for the four inserted lines and your results should look like mine below.

This technique usually works for most names, however you have no control over a name that might be very long.



Figure 93: After Adding 2nd Column

Changing Margins and Justification

To have complete control over the names, and use center justification (my normal choice), you will need to change the margins on each of the names. The original four names will have a right margin at least equal to the center of the plaque. But I always subtract .10 from the center so that the names of the two columns will never meet.

I use that measurement (3.65) for the right margin on the four original names, and the same for the left margins on the four added lines.

You could change each line individually in the normal layout screen, but to avoid confusion, try the manual edit screen. You can move around the screen a lot easier.

Don't forget to change the justification to Center on all of the names lines.

Line	Baseline	Line Ht	Left	Right	Depth
7	5.344	0.376	3.650	0.600	0.000
8	6.104	0.376	0.600	3.650	0.000
9	6.104	0.376	3.650	0.600	0.000
10	6.865	0.376	0.600	3.650	0.000
11	6.865	0.376	3.650	0.600	0.000
12	7.625	0.376	0.600	3.650	0.000
13	7.625	0.376	3.650	0.600	0.000

Buttons: Cancel, Okay

Figure 94-A: Manual Edit Dialog



Figure 94-B: With Columns Center Justified

Vision's Border Option

This is the easiest and practical way to add a border to an engraving plate.

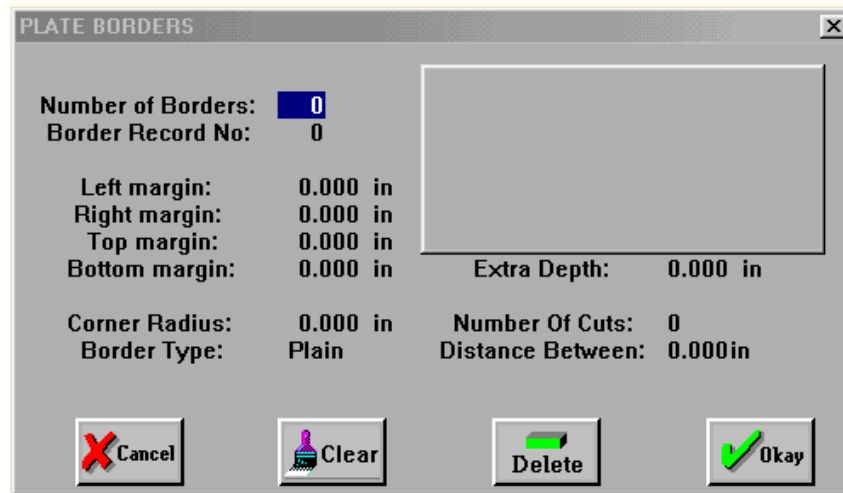


Figure 95-A: Borders Dialog

For our Sample 6E, below, we entered 1 for the Number of Borders. Enter .25 for the margins (left, right, top, bottom), and enter .25 for the Corner Radius. We used the NOTCH Border type, and changed the Number of Cuts to 2 with .05 Distance Between.

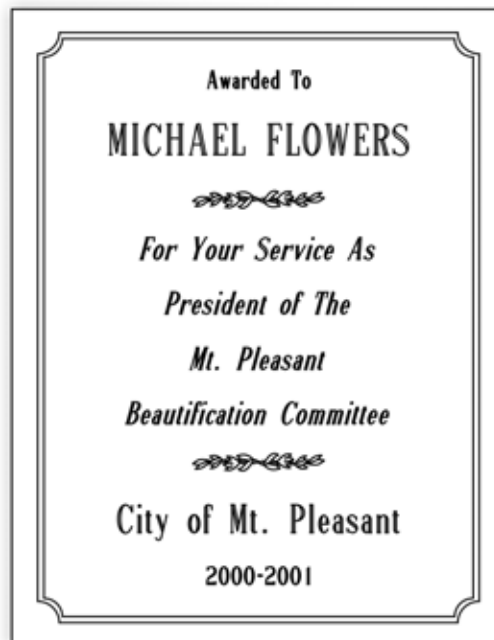
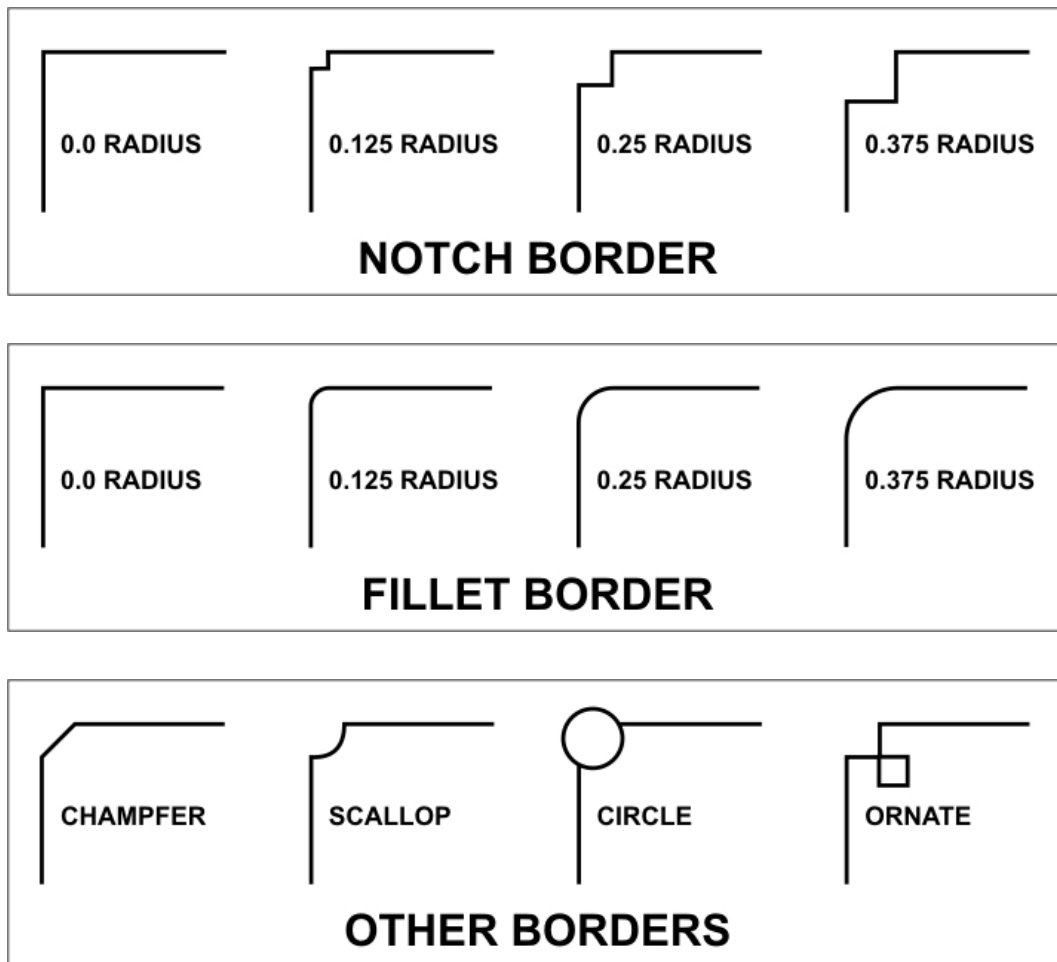


Figure 95-B: Results of Adding Border

Changing the Corner Radius will give each of the Border types a different look.



Definitions of the terms used in Vision's Border option.

- **Number of Borders:** The total number of borders on the plate. Vision allows you to have up to eight borders on a single plate. You can make a sign look unique by using multiple borders.
- **Border Record No:** This is the border number that you are working on.
- **Left Margin:** This is the distance from the left edge of the plate to the left edge of the border.
- **Right Margin:** This is the distance from the right edge of the plate to the right edge of the border.
- **Top Margin:** This is the distance from the top edge of the plate to the top edge of the border.
- **Bottom Margin:** This is the distance from the bottom edge of the plate to the bottom edge of the border.
- **Corner Radius:** This is the radius amount of the corner of the border. The larger the number is, the "more round" the corner will be.
- **Border Type:** This is the type of border that you would like to use. There are eight different borders to choose from. The space bar will toggle through the different types of borders.

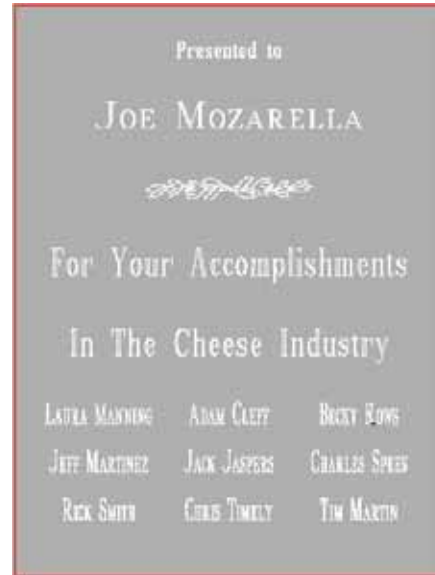
- **Extra Depth:** This will add a depth for the border. It is used if you want to use the border feature to cut out your plates in a multiple plate instead of engraving a border. Enter the depth you would like to engrave. This will usually be the thickness of the material you would like to cut out.
- **Number of Cuts:** This will make multiple passes of the border to give it a different look. It works with the item below.
- **Distance Between:** This is the distance between the multiple cuts as described above.
- **Clear:** This will clear the settings for the border you are on.
- **Delete:** This will delete the border you are currently working on.



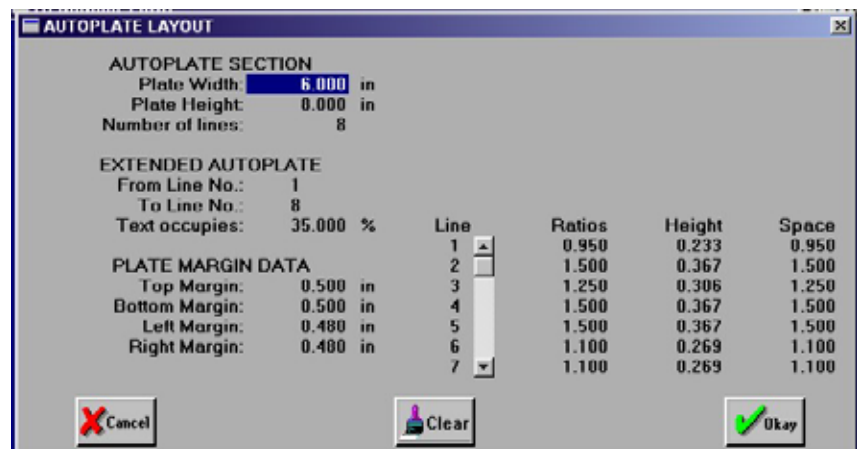
If you set the margins to 0, it is best to select the "Ignore Clips" option from the Execute Layout screen. If you do not do this, the border may not engrave completely.

Columnizing and Autolayout Work Together

Here is the layout the customer wants: a 6 x 8 plaque with 8 lines engraving (5 lines for the top and at the bottom 3 columns across and 3 deep - 9 names):

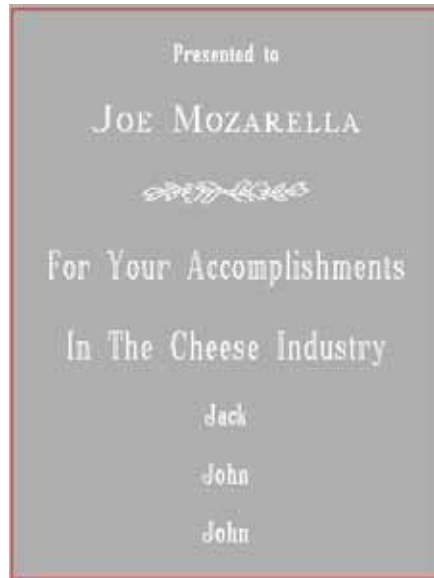


Create the layout in Autoplate. The last 3 lines are for the names so that you can determine the best size. They will not be used in the final layout. Note the top and bottom margins (.50 for both):



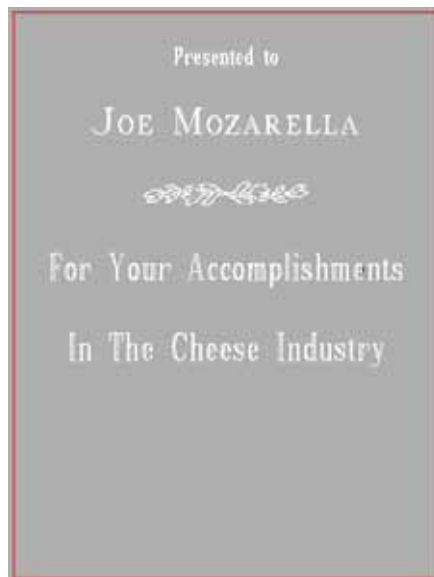
Enter the desired text and put names in lines 6, 7, 8. These are only used for determining your preferences. The actual names entered will be erased shortly.

Here is the initial layout (before columnizing):

**Figure 03**

Now go to Manual layout and note the baseline of line 6, the first line columnized – 5.846, .269. If you subtract the line height from the baseline, you will get the top margin of the first columnized line, 5.577.

Now in the main layout screen, change the number of lines from 8 to 5. Press Autolayout and you should see the following.

**Figure 04**

Again in the main layout screen, make sure the cursor is on line 5 of your layout. The columnizing lines are added below the current cursor position.

In the columnizing screen, **OPTIONS | COLUMNIZE**, make sure there is a checkmark in the Show existing line graphics. Enter 3 lines and 3 columns. For the top margin, enter 5.577(5.846-.269). and for the bottom margin, .50. Now go the LINES tab on the columnizing screen and change the line heights to .269.

This is the columnizing screen:

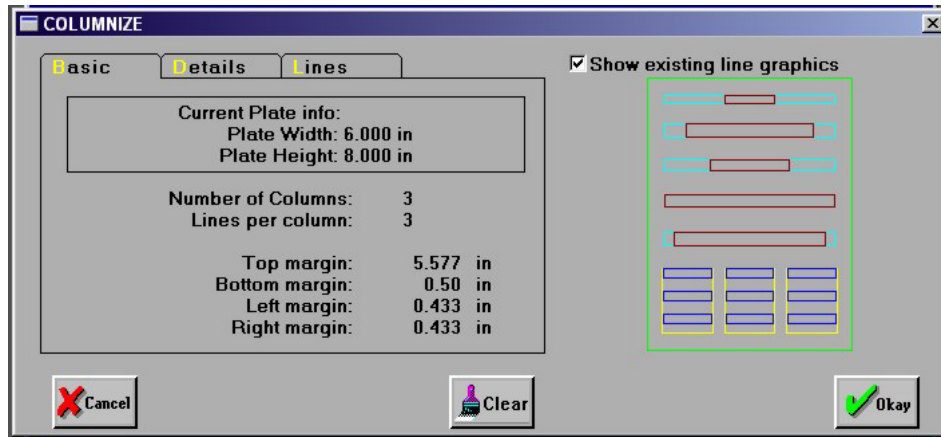


Figure 05

Enter the names for the columns, lines 6 thru 14. Here's the layout. Autocolumn2.job:

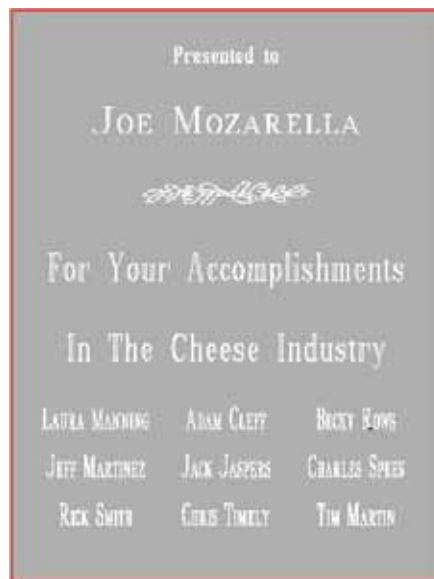


Figure 06

If you make a mistake with columnizing, you can undo and go back in again.

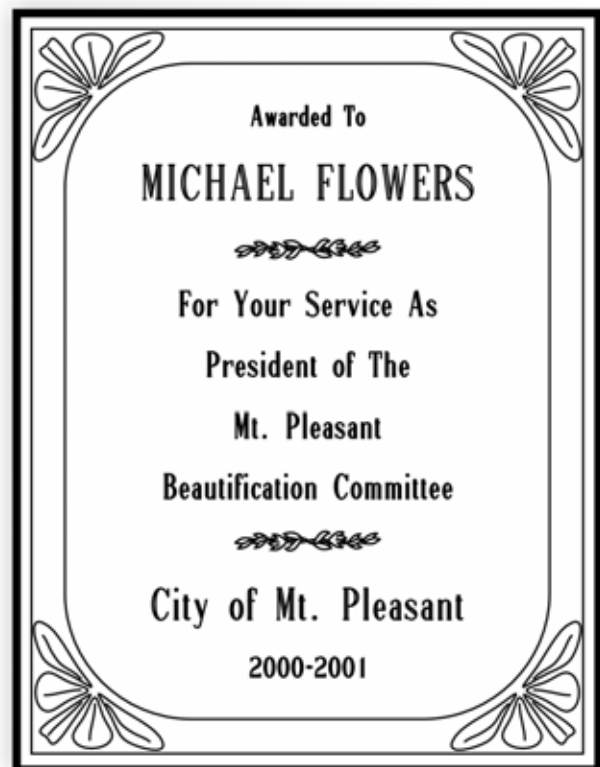
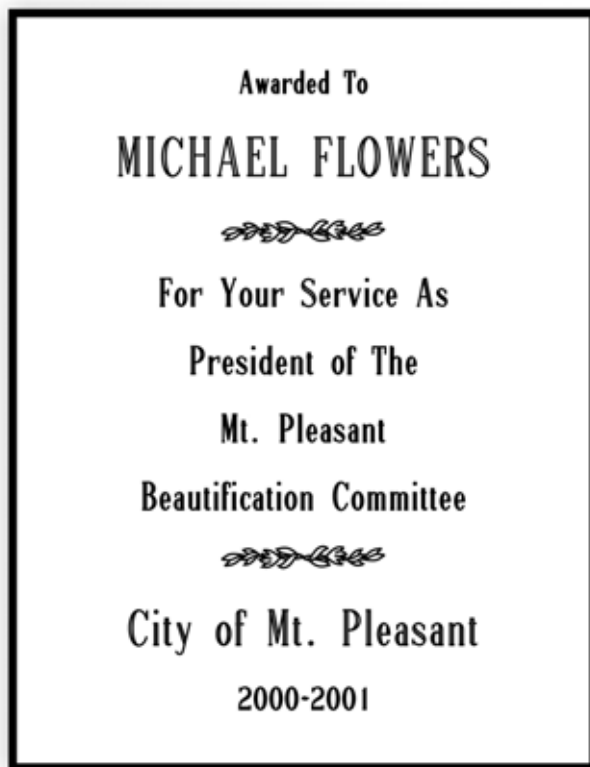
Using a Border Logo from the PLT Notebook

While the easiest way to use a border in your layout is to use Vision's border function, you may want to use a custom border. You can use the many borders in CorelDraw, or other vector artwork programs for those special jobs. Below is an layout using the logo, BORD019 from The Network's PLT notebook.

Here are the steps used in creating the layout.

Using Vision's Autoplate Layout, create your plaque layout. Make sure that your margins allow for the use of the border.

Complete the layout, adjusting the lettering to your needs.



Make sure you are completely satisfied with layout. Once you insert the line for the border logo, you cannot go back into Autoplate, without the border being included as a line. If you need to change the layout because of your logo border, you can delete the 'border' line, change your layout, and then re-insert the border line

With your cursor on the last line of your text, insert a line.

Change the line height, baseline, and left/right margins. If you were using a 5 x 5 plate, and wanted the border to fit on the plate with a .25 margin all around the plaque, you would use a line height of 4.50, a base line of 4.75, and .25 for the left and right margins.

In sample on the right, above, the border has been added (BORD036).

The condensation of the border line was changed to force the border to the margins. Change the condensation of the border line to 999%. This will force the border out your preset margins. The actual condensation will be shown.



The BORD036 is a logo. If it was created with a 1:1 ratio, or square, it should be used with a square layout. It's okay to use different borders, but be aware that the spacing between the lines of the 'logo' or border will not be equal if used at a ratio other than it was created.