Learning Guide OMEGA Software

THE POSSIBILITIES ARE INFINITE

GERBER SCIENTIFIC PRODUCTS

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Variables

There are many variables in process reproduction of colors generated by the GERBER EDGE and GERBER MAXX, any one of which may affect the quality of the PANTONE Color Simulation, including:

- Type of media/paper used
- Type of ink film used
- Effective final resolution
- Dot structures/halftones

For optimal results we recommend when using the GERBER EDGE or GERBER MAXX, that the following materials be used:

1. 3M® Scotchcal 220-10 or 225-10 Gloss White Vinyl
2. GerberColor SUPER CMYK Foils

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Chapter 1: Introducing OMEGA™

Welcome to the *OMEGA Learning Guide*. This document provides the information needed to create vinyl and printed signs with the Gerber OMEGA software package.

The *Learning Guide* focuses on the most frequently used tools and reinforces each lesson with multiple exercises. This allows you to become comfortable with the program, making the tools not covered by the *Learning Guide* more intuitive to learn on your own.

All procedures in the lessons are explained with step-by-step instructions. When a procedure is repeated in later lessons, two formats are used: Quick Instructions and Detailed Instructions.

The Quick Instructions give you the opportunity to test what you have learned. There is a brief description of the task to be accomplished. Pertinent information, such as font style and size are included in the description. The telephone icon is the symbol for fast information. It is placed to the left of the Quick Instructions.

The Detailed Instructions are step-by-step procedures to completing the task. If you get stuck using the Quick Instructions, or you do not feel confident to try it on your own, the Detailed Instructions will help you continue with the lesson and emphasize proper procedure. The book icon is the symbol for a more comprehensive set of instructions. It is placed to the left of the Detailed Instructions.

Conventions

The following conventions are used in this manual:

Note: A note contains important information, which could affect successful completion of a task

Tip: A tip provides valuable information that could make a task easier, offers an alternate method, or reminds you of something that appears elsewhere in the manual.

Support information

phone: 800-828-5406 for hardware, 860-644-6971 for software
fax: 860-648-8376

e-mail: gspservice@gspinc.com (hardware) or gsptech@gspinc.com (software)

www.gspinc.com

Additional sources of information

Gerber FastFacts™ provides answers to technical and service questions. The telephone number is 860-648-8040 or 800-222-7446 option 5. FastFacts are also available on the web site under “Support.”

If you are a Support First™ member, use your toll-free assistance number (for more information about Support First, call 860-644-6971).

Lesson 1:
Learning the program basics

Before you can begin to work with OMEGA, it is important to familiarize yourself with terminology and computer functions.

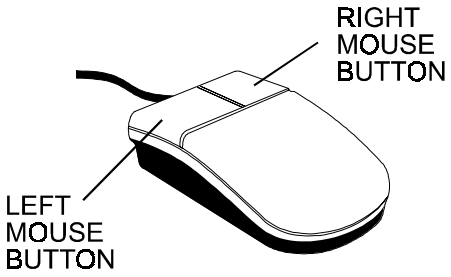
Please take note of the new menu choice format used in this manual. The menu choice format uses an arrow (>) between the menu or toolbar names to show the order in which to click and make a final specific choice. For example, "Choose Start > Programs > GSP® OMEGA > Composer" means to first click Start on the task bar to open the Start menu. From the Start menu, click Programs followed by GSP OMEGA. Finally, from the GSP OMEGA menu choose Composer to open it.

Please review the following information.

Using the mouse

To use Composer, you will need to be able to work the mouse. The mouse is a pointing tool used to communicate with the computer. It will be used extensively throughout these exercises.

Locate the arrow pointer on the screen. Notice how the pointer moves when the mouse is moved.



When referring to the mouse, the following terms will be used:

Click

Press and release the left mouse button without moving the mouse. This is the most common mouse command used to perform the majority of functions. This command usually follows directions to move the pointer to a specific location.

Click Right

Press and release the right mouse button without moving the mouse.

Double-click

Press the left mouse button twice quickly without moving the mouse. The speed you need to double-click is determined in your system's control panel. If double-clicking does not produce the desired results, try again more slowly or more quickly.

Click & Drag

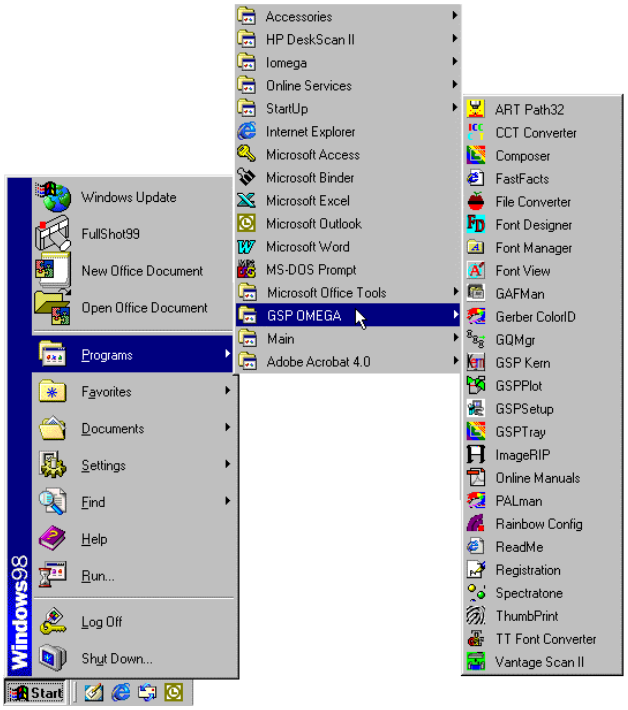
Place the mouse pointer over an object on the screen. Then hold the left mouse button down while moving the mouse. It is called dragging because the object on the screen usually moves with the mouse pointer as you drag.

Viewing Composer

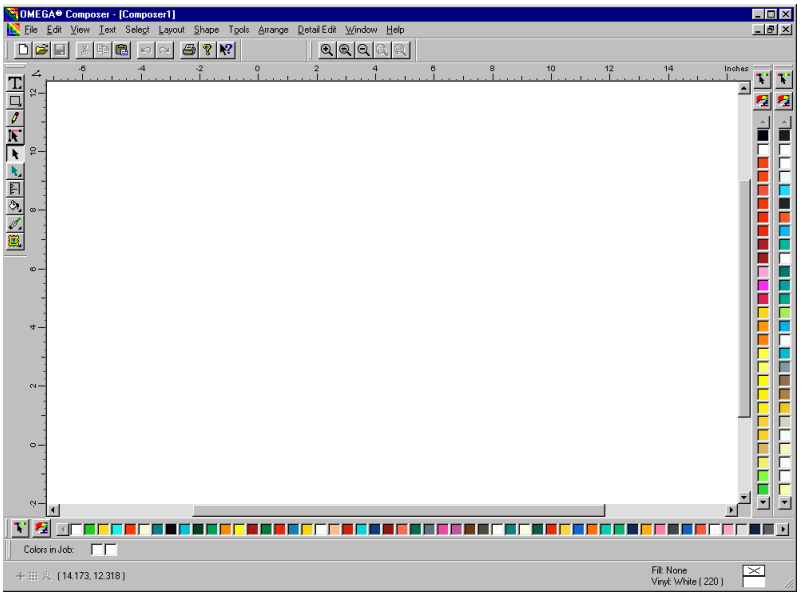
The most effective way to learn Composer is to use it. You will become more familiar with the components of the program by opening the application and following along.

Opening Composer

1 Click the Windows® Start button.



2 Choose Programs > GSP Omega > Composer. The Composer window opens.



Tip: Double-click the Composer icon on your desktop to immediately access Composer.

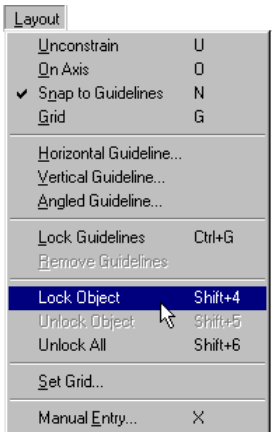
Recognizing screen elements

Title Bar

The title bar is located at the very top of the Composer window. The name of the open file is displayed, or if it is a new file, the title will be listed as (Composer 1).

Menus

Menus are located below the title bar. They contain various commands and tools used in creating and outputting a design. By clicking a menu name, an option list appears. An item appearing black is available to use. Those in gray cannot currently be accessed.



Toolbox toolbar

The Toolbox toolbar runs along the left-hand side of the Composer window. It contains all the tools for creating text and shapes, selecting objects, and coloring designs with spot and process colors.

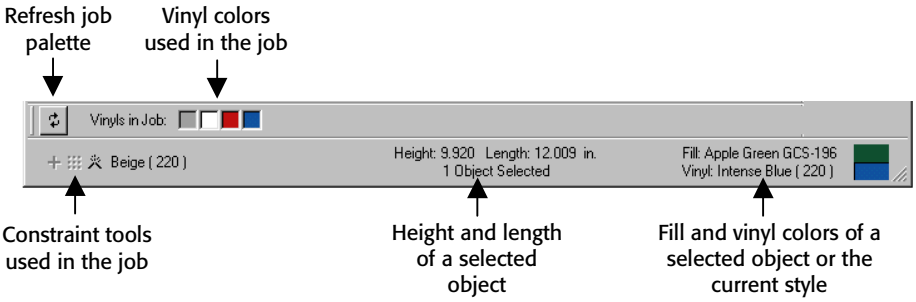
Fly-Out Toolbars

Fly-out toolbars are located on the Toolbox toolbar. Fly-out toolbars are indicated by a small triangle located in the lower right-hand corner of the icon. These icons contain hidden toolbars. Click on the triangle of an icon to open the toolbar. Click the tool from the fly-out toolbar to make it active.

To dock the toolbar on the work surface or at the top of the screen, click on the gray area surrounding the tools and drag it into position.

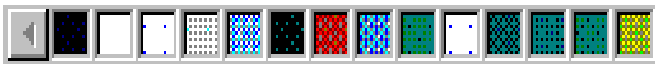
Status Bar

The status bar is located at the very bottom of the Composer window. It contains specific design information. For example, pointer tracking, active color, and selected object information.



On-screen Vinyl Color Palette

The on-screen vinyl color palette is located across the bottom of the Composer window above the status bar. To view the names, position the pointer on a color swatch, and move it across the palette. The names appear on the left side of the status bar.



Other on-screen palettes

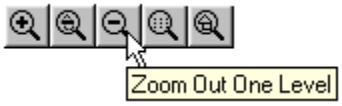
Spot and process color palettes can be viewed along the right side of the Composer window. If they do not appear when Composer is opened, click View > Color Palette. Turn on Show Foil Palettes and Show Process Palette.

Work Surface

The work surface includes all the solid white space between the rulers. This is the area where you design.

Screen Tips

Screen tips are active with every tool icon in Composer. By positioning the pointer over an icon and waiting a second, a screen tip will appear. Screen tips explain the action the tool will perform.



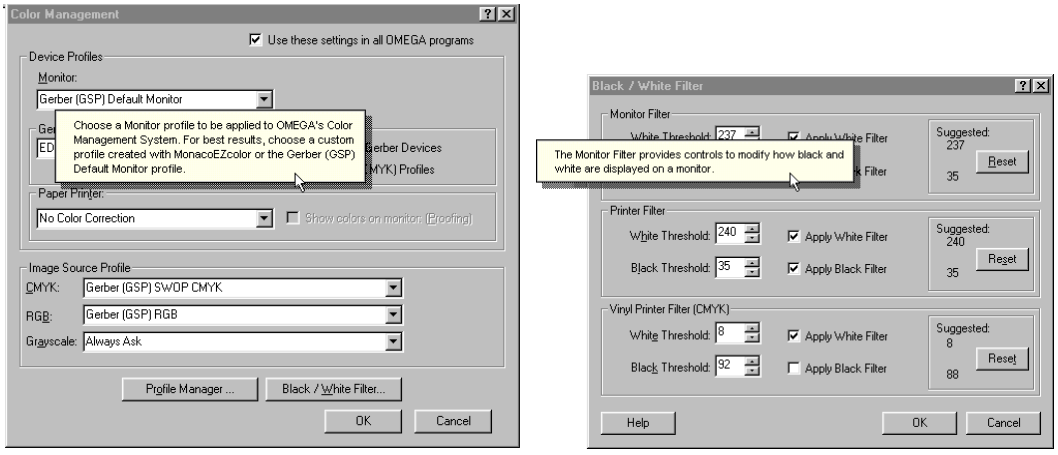
Using the Help System

The Help system can be a very powerful OMEGA tool if you understand how to use it and what it contains.

Review the *OMEGA Reference Manual's* topic on using the Help system. By understanding how to use the Help System, you will be better able to answer any Composer questions you may encounter. This will help eliminate the downtime you may experience while waiting for a call from your distributor or Gerber's Technical Systems Support department.

There are several ways to access Help:

- In an OMEGA dialog box, press F1 to display a related topic.
- Press Shift+F1 or click the arrow/question mark tool in the standard toolbar then click a command, menu item, or tool to get specific information.
- Click Help > Help Topics to open the OMEGA Help window.
- In Color Management, Black/White filter, and Profile Manager you may access context sensitive help on individual items in the dialog box. Press Shift+F1 or the question mark button in the upper right corner of the dialog box and click an item to display help on that item.

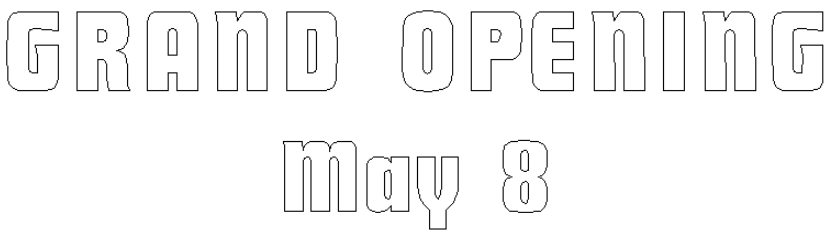


Chapter 2:
Basic Sign Design

This chapter covers all the tools needed to create the above sign. The techniques you will learn are:

- Entering and editing text
- Creating and editing shapes
- Correcting mistakes
- Aligning objects
- Modifying objects
- Spacing objects
- Plotting vinyl jobs

Lesson 2:
Creating text



In this lesson, you will create the above sign using the TOWS tool and the following techniques:

- Entering text
- Changing a font
- Changing letter height
- Using Character Spacing

For information on using other text features including the Enter/Edit Text dialog box, refer to OMEGA Help.

Selecting the text tool

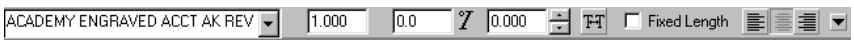
1. Place the pointer on the text tool displayed on the Toolbox toolbar.

2. Click the arrow in the lower right corner of the displayed text tool to access the Text fly-out toolbar.

3. Move the pointer to the first text tool, Text on the Work Surface, and click. The pointer changes to the text I-beam.

> **Tip:** Use the tool displayed on the Toolbox toolbar by clicking anywhere on the icon other than the arrow in the lower right-hand corner.

4. The TOWS toolbar appears above the horizontal ruler.

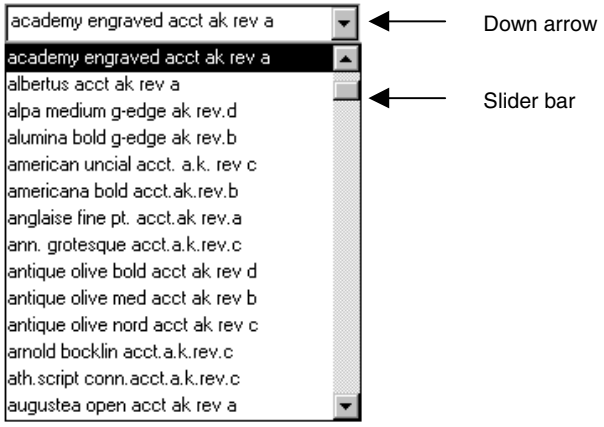


> **Tip:** You can also enter text using the Enter/Edit Text dialog box. Choose the Enter/Edit Text tool and click to open the dialog box where you can choose the font, size, slant, justification, line spacing and arc.

Choosing a font

Scrolling through the font list

1 Click the down arrow to the right of the Select Font list on the text toolbar. A drop down list of all the available fonts opens.



2 Scroll through the list by clicking and dragging the slider bar down the list until you find Futura Display Acct.

3 Click Futura Display to make it the active font.

> **Tip:** To quickly find a font, press the first letter of the font to jump to that section of the list. When the Most Recently Used Font list is active, you must double-hit the letter to advance past the MRU fonts to the main list.
>
> To turn off the MRU fonts list, go to Tools > Options > Text and turn off Show Most Recently Used Fonts.

Choosing a font by name

1 Click the down arrow of the Select Font list.

> **Tip:** To see the style of a font, click the down arrow of the Select Font list. Either move the mouse across the font names, or press the down arrow on the keyboard.

2 Begin typing the name of the font, Futura. Futura Display will be highlighted in blue at the bottom of the Select Font list.

3 Press Enter on the keyboard to select the font.

Changing the letter height

1. Double-click the Font Height text box on the text toolbar. The value is highlighted.
2. Enter **9"** (22.8 cm) in the Font Height text box. (All measurements in Composer are in inches or degrees, unless metric is the active units of measurement.)

> **Tip:** To change the units of measurement, use Regional Settings in the Control Panel. Refer to your Windows manual for more information.

Entering text

1. Click anywhere on the work surface.
2. Type **Grand Opening** in title case. *Do not be concerned if your text is out of view.*
3. To view the entire design, click the Zoom to All button on the Zoom toolbar. The Zoom toolbar is located below the Menu bar.

Note: If the Zoom toolbar is not currently displayed on the screen, click View > Toolbars, and turn on Zoom.

4. Press Enter to move the cursor to the next line.
5. Type **May 8**.

> **Tip:** The conventions for editing text in Composer are the same as most standard word processing programs.
>
> - Position the cursor before a character or a space you want to eliminate, and press the Delete key.
> - Position the cursor after a character or a space you want to eliminate, and press the Backspace key.
> - Click and drag over a series of characters, and press Delete, Backspace, or begin typing new text. The new text will replace the highlighted text.

Changing a line of text

1. Click and drag the text I-beam over the text May 8. The text becomes highlighted.
2. Double-click the Font Height text box. The value is highlighted.
3. Type **8"** (20.3 cm).
4. Press Enter. The font height is changed.

Changing the case of text

1. Highlight the text Grand Opening.
2. Click Text > Change Case > UPPER CASE and the text changes to GRAND OPENING.

> **Tip:** Change Case quickly alters the case of selected text. There are four available types: lower case, UPPER CASE, Title Case, and tOGGLE cASE.

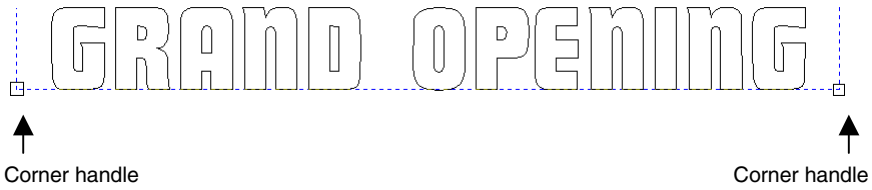
Spacing the letters

1. Place the cursor in the first line of text. *Do not be concerned with the position of the cursor on the first line of text.*

Character Spacing: An equal amount of space placed between each character to expand or condense the line.

2. Turn on Character Spacing by clicking the button on the text toolbar. A blue dotted line appears on three sides of the text with two corner handles.

3. Place the pointer in either corner handle located on the sides of the baseline of the text GRAND OPENING.



4. Click and drag the handle towards the side of the work area. Notice that the blue dotted line expands. This shows the length of the line of text.

5. Release the mouse button to set the spacing. If the spacing is too great or not great enough, click and drag a corner handle to adjust the spacing.

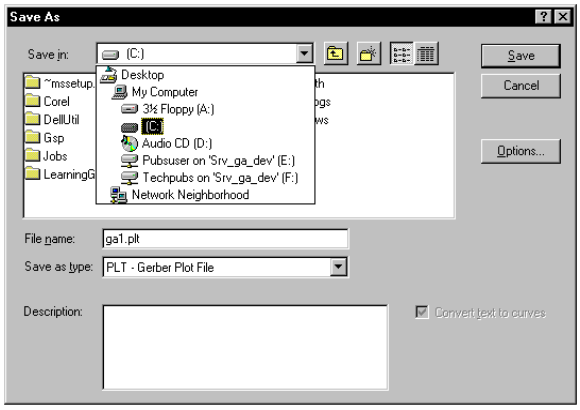
6 Turn off Character Spacing by clicking the Character Spacing button on the text toolbar.

Note: To use character spacing, the cursor can be positioned anywhere on the appropriate line of text.

Tip: The GSP Kern program allows you to open any GSP or User font and adjust the font kerning. Kerning adjusts the measured distance between the rightmost point of the left character and the leftmost point of the right character. Kerning adjustments are made between character pairs and are saved under a new font name or font number. The saved font can then be used in Text Entry. Open GSP Kern and press F1 to open Help for complete instructions on kerning font characters.

Saving the job

1 Click File > Save As. The Save As dialog box opens.



2 Click the Save in drop down list and browse to C:\Jobs. (In this example, C is the designation for the hard drive where OMEGA is loaded.)

3 Click the Create New Folder button to open the New Folder dialog box where you can create a separate folder to hold the Learning Guide jobs. Enter a folder name (such as *My Lessons*) and click OK.

4 Click the Save in drop down list and browse to your new folder.

5 Click the Save as type drop down list. Select PLT – Gerber Plot File as the file type.

6 In the File name text box, type **GRAND OPENING**.

7 Click Save. The job should be saved in your new folder.

This completes Lesson 2. Please do the exercises that follow to review what you have just learned.

Lesson 2: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

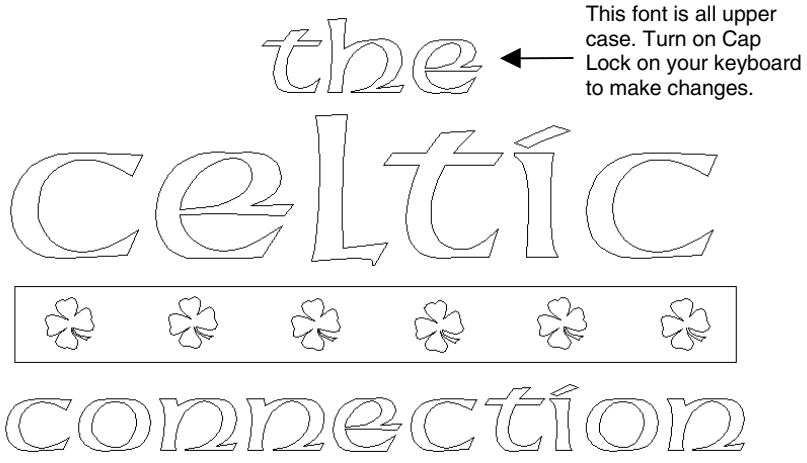
Recreate the design as it appears below. The font is Bembo Bold, and the letter heights are **4"** (10.16 cm) and **2"** (5.08 cm).

To open a new Composer screen click File > New.

Exercise 2

This job has been created for you, but needs to be edited to match the design below. Change the font to American Uncial and fix any misspellings.

1. Click File > Open. The Open dialog box opens.
2. Navigate to C:\Jobs\Learning folder.
3. Click Celtic.plt.
4. Click OK.



Lesson 3:
Creating borders and moving shapes

In this lesson you will create the above sign using the following techniques:

- Creating a border
- Selecting shapes
- Moving shapes
- Correcting mistakes

For more information on using these features refer to OMEGA Help.

Opening an existing file

To retrieve the GRAND OPENING file, click Window > GRAND OPENING.plt. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type drop down list, and change the file type to PLT – Gerber Plot File.
3. Click the Look in drop down list, and navigate to the folder you created in the previous lesson to hold your files (for example: *My Lessons*).
4. Double-click to open the folder.
5. Choose GRAND OPENING.plt, and click OK.

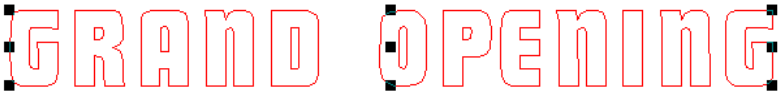
Selecting shapes (including text)

Shape selection is vital to making any kind of modification to your design. Take a moment to learn a few of the different techniques for selecting and deselecting shapes.

Selecting individual shapes

Selecting objects: Selection of shapes lets Composer know what design elements are to be modified.

1 Click the Selection tool from the Toolbox toolbar.



2 Position the tip of the pointer on a line that makes up the text GRAND OPENING, and click. The line of text that you selected is highlighted in blue, and 8 sizing handles and a center point appear.

3 Click May 8. Notice how GRAND OPENING is deselected.

Note: The Selection tool only selects one shape at a time. If a shape is currently selected, it becomes deselected when another selection is made. Refer to the procedure "Selecting multiple shapes - individually" on page 18.

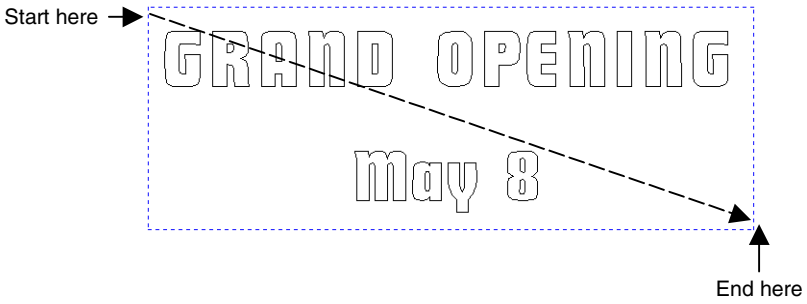
Canceling a selection

Position the pointer away from the shapes on the work surface (white space), and click. This cancels any shapes that are selected.

Selecting multiple objects using a marquee selection box

Marquee Selection: Clicking and dragging around design elements with the Selection tool produces a dotted blue line. Any shape that falls within the border of the dotted line is selected.

1 With the Selection tool, click and drag diagonally through both lines of text.



2 A dotted blue marquee selection box surrounds the shapes.

3 Release the mouse button to finish the selection. The entire design is selected, and is highlighted blue.

Note: When using a marquee selection, start the selection away from the shape, so that you do not inadvertently move the shape.

Canceling individual shapes of a selection

With all the text selected, hold down the Shift key and click May 8. Notice that GRAND OPENING remains selected, while May 8 is deselected.

Note: Holding down the shift key enables only one shape to be affected.

Selecting multiple shapes - individually

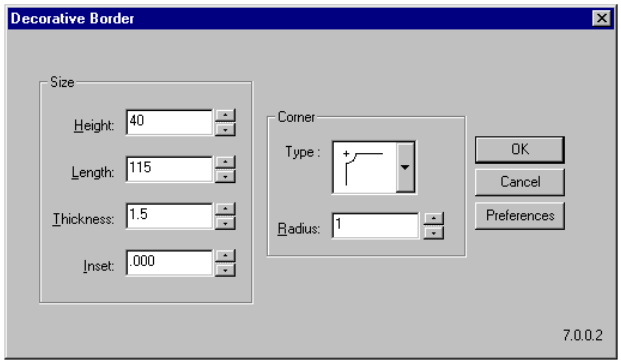
Sometimes a marquee box selection selects more than you need. To select multiple shapes individually, hold down the Shift key and click each shape.

Creating a border

1. Click the lower right triangle of the displayed construction tool on the Toolbox toolbar to access the Construction fly-out toolbar.

2. Click the Border tool. The cursor changes to a crosshair.

3. Place the crosshair in the upper-left corner of the design, and click and drag a border diagonally through the entire design. Do not be concerned about your starting and ending point.
4. Release the mouse button. The Decorative Border dialog box opens.



5. Enter **40"** (101.6 cm) in the Height text box.
6. Enter **115"** (292.1 cm) in the Length text box.
7. Enter **1.5"** (3.81 cm) in the Thickness text box.
8. Choose Concave from the Corner type drop-down list.

9. Enter **1"** (2.5 cm) in the Radius text box. The radius determines the appearance of the corner.
10. Click OK. Do not be concerned with placement of the border.
11. Click Zoom to All to view the entire design.

Note: A radius is always required for a rounded or concave corner.

Tip: To quickly create a square or a rectangle with known values, use the Border tool. In the Decorative Border dialog box, enter the values for the height and length only, and click Continue.

Tip: To create a perfect square, hold down the Ctrl key when using the Border or Box tool. Use the Shift key when using either tool to create shapes from the center.

Smart Editing: Opens dialog boxes of creation and modification tools for changes to be made. Opens the dialog box of the last function used on that shape.

Editing a border

1. Click the Selection tool from the Toolbox toolbar.
2. Position the pointer on a line that makes up the border.
3. Double-click. The procedure of double-clicking for editing is known as Smart Editing.
4. The Decorative Border dialog box opens. The values reflect the border in the design. New values could be entered and corner types chosen to alter the border.
5. Without changing anything, click OK.

Moving shapes

1. Click the Selection tool.
2. Position the pointer on a line of the text GRAND OPENING and click and drag up. Position the text near the top of the border as seen in the illustration above.
3. Click and drag the text May 8 into position near the bottom of the border. Do not be concerned with proper alignment within the border; alignment comes in the next lesson.

Correcting mistakes

Correcting mistakes in Composer is easy. By clicking Undo from the Edit menu, you can correct 10 of the last changes. You can set the number of undos higher by clicking Tools > Options.

1. Click Edit > Undo to undo the last change to the design.
2. Click Edit > Undo to undo the second to last change.
3. Click Edit > Redo twice. Now the design is returned to the final design.
4. Click File > Save.

Use the Undo feature any time you need to correct a mistake during the upcoming lessons.

This completes Lesson 3. Please do the exercises that follow to review what you have just learned.

Lesson 3: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

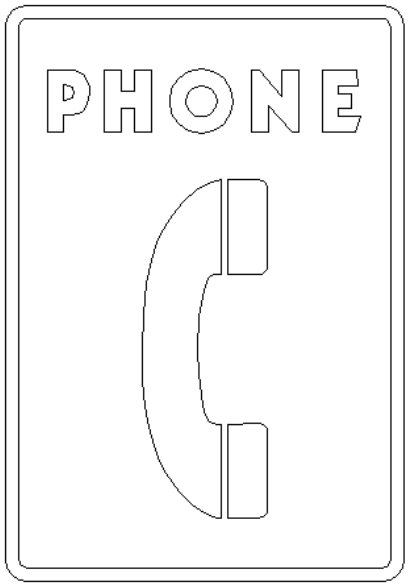
Recreate the design as it appears below using the font, Academy Engraved at **2"** (5.08 cm), **1"** (2.54 cm), and **0.4"** (10.16 mm). The border has a height of **19"** (4.82 cm), length of **14"** (35.5 cm), and a thickness of **0.3"** (7.62 mm).

The gramophone clipart is located on the C: drive. To open the file:

1. Click File > Open.
2. Navigate to the C:\Jobs\Learning folder.
3. Click Jenson.plt.
4. Click Open.

Exercise 2

Recreate the design as it appears below. Open the Phone.plt file. For directions on how to open the file, refer to the example on the previous page. The font is Cable Heavy with a letter height of **1.4"** (3.55 cm). The border has a height of **13"** (33.02 cm), length of **9"** (22.86 cm), and a thickness of **0.3"** (7.62 mm). The radius of the border is **0.2"** (5.08 mm). Use the Character Spacing tool to space the letters.



Lesson 4:
Creating shapes and learning to size

In this lesson you will create the above sign using the following techniques:

- Drawing boxes
- Drawing polygons
- Justifying shapes
- Copying and Pasting
- Sizing shapes

For more information on using these features refer to OMEGA Help.

Opening a saved file

Quick instructions

Open the saved file, GRAND OPENING.plt.

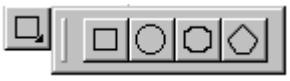
Detailed instructions

To retrieve the file, click Window > GRAND OPENING.plt. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type drop down list, and change the file type to PLT - Gerber Plot File.
3. Click the Look in drop down list, and navigate to the folder you created to hold your files (for example: *My Lessons*).
4. Double-click to open the folder.
5. Choose GRAND OPENING.plt, and click OK.

Drawing a box

1 Click the lower right triangle of the displayed construction tool on the Toolbox toolbar to access the Construction fly-out toolbar.



Note: If the displayed construction tool is the Box tool, as illustrated above, simply click the middle of the icon to access the tool.

2 Select the Box tool. The pointer changes to a crosshair.

3 Place the center of the crosshair below the "G" in GRAND. The box begins at the center of the crosshair.

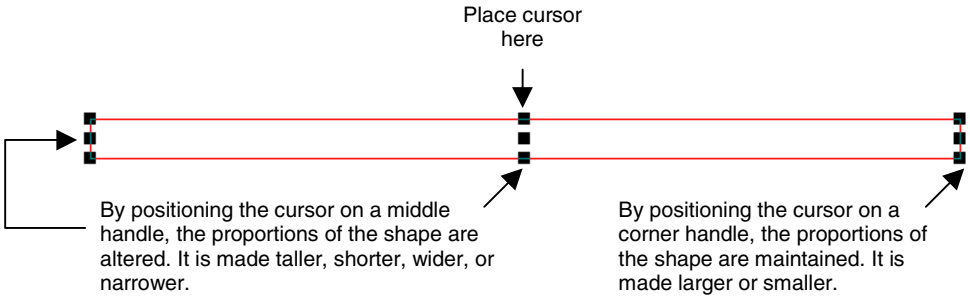
4 Click and drag diagonally to create the box. Release the mouse button when you are under the "G" in OPENING. *Do not be concerned if the proportions are not correct; sizing is covered in the next procedure.*

Visually sizing

1 Click the Selection tool; the box becomes selected. Black boxes appear at each corner and at the center points of the box.

2 Position the Selection tool over the top, middle handle. The pointer changes to a two-sided arrow.

3 Click and drag toward the center of the box to make the box thinner. Click and drag up to make the box thicker.



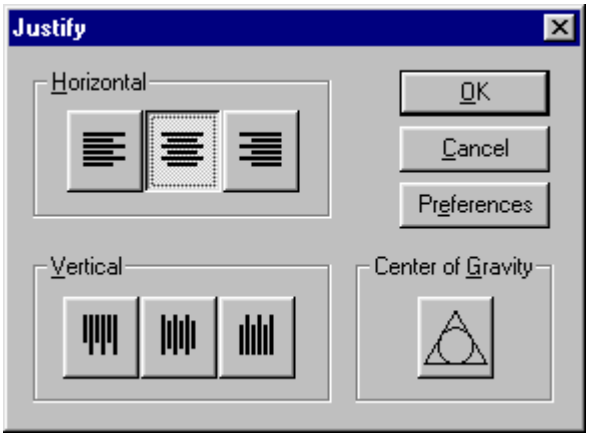
4 To make the box longer or shorter, click and drag the middle, side handles. To make the whole shape larger or smaller, click and drag the corner handles.

Tip: To change the size of a shape and maintain the center point, hold down the Shift key and click and drag the appropriate sizing handle. The shape will grow or shrink from the center.

Tip: To move a shape using a handle, hold down the Alt key and click and drag a handle. The cursor turns into the Move hand.

Justifying shapes

1. Click Select > All.
2. Click Arrange > Justify. The Justify dialog box opens.
3. Select the Horizontal Center Justify button (shortcut key 2) as shown below. Be sure that no other buttons are selected.



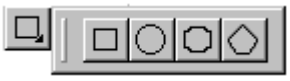
4. Click OK.

Note: When using the Justify function, the shape that is selected last remains stationary and all other shapes move to it.

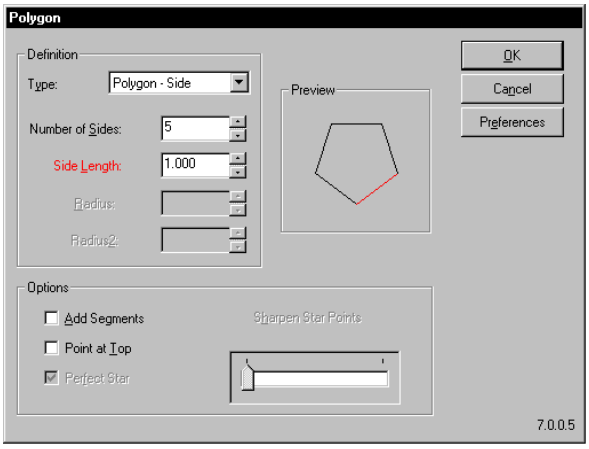
Tip: To perfectly center a shape within another shape, (Stack) click the Horizontal Center and Vertical Middle Justify buttons from the Justify dialog box or use the shortcut key 7.

Creating a star

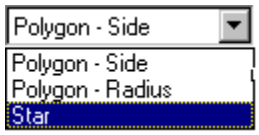
1. Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.



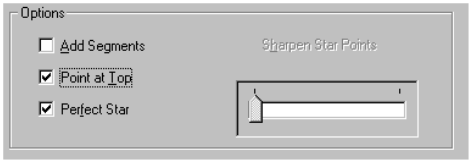
2. Click the Polygon tool.
3. Position the crosshair to the left of the text May 8, and click. The Polygon dialog box opens.



4 Select Star from the Definition Type drop-down list.



5 Turn on Point at Top and Perfect Star in the Options boxes.

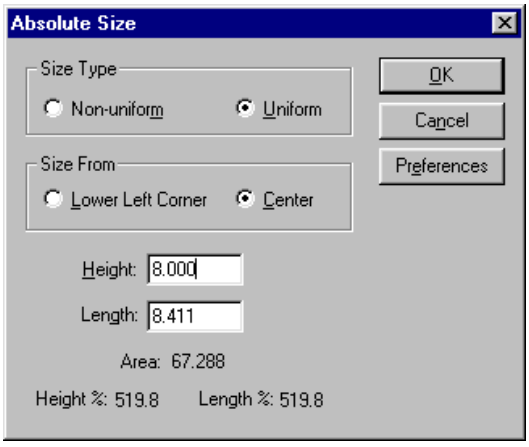


6 Click OK. Do not be concerned with the size of the star.

Sizing precisely

1 Click the Selection tool to select the star.

2 Click Shape > Absolute Size. The Absolute Size dialog box opens.



3 Choose Uniform from the Size Type box.

4 Choose Center from the Size From box.

5 Enter **8"** (20.32 cm) in the Height text box.

6 Press Tab to automatically enter the length.

7 Click OK.

> **Tip:** Use Uniform in the Absolute Size dialog box to keep the shape proportional. Use Non-uniform to change the height and/or width without maintaining the original proportions.

Moving a shape

Quick instructions

Move the star to a new location.

Detailed instructions

1 Click the Selection tool.

2 Click on a line of the star and drag it to the new location.

Copying and pasting shapes

1 Select the star with the Selection tool (if it is not already selected).

2 Click Edit > Copy. This makes a copy of the star and saves it in the computer clipboard.

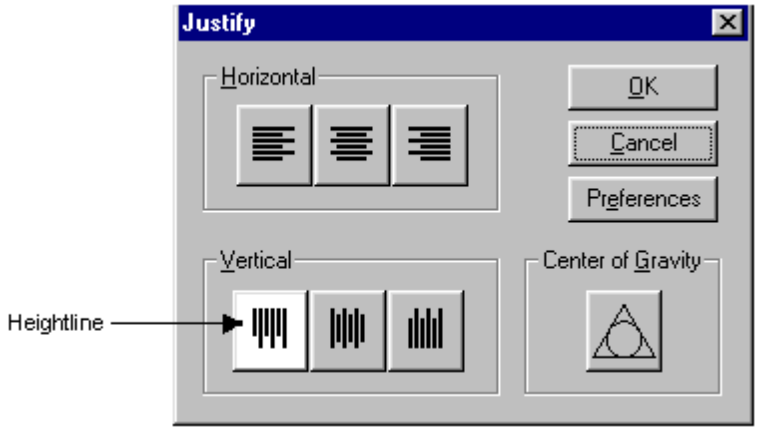
3 Click Edit > Paste. A copy of the star is pasted into the middle of the viewed work surface.

4 Click and drag the star to the right of May 8.

Justifying on the heightline

1 Holding down the Shift key, select both stars and then the text May 8 with the Selection tool. By selecting the text last, the stars align to the pre-positioned text.

2 Click Arrange > Justify. The Justify dialog box opens.



3 Choose Vertical Heightline button as shown.

Note: It is important to turn off any Horizontal Justify buttons.

4 Click OK.

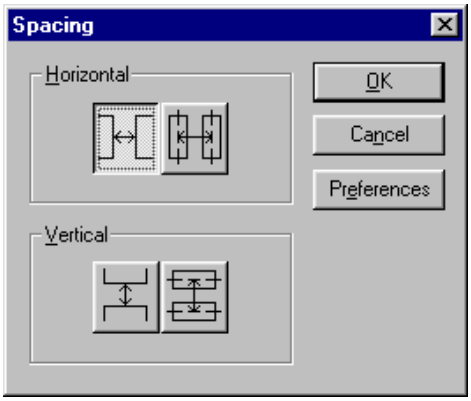
Spacing shapes

To ensure the same spacing between the stars and the text, you can use the Spacing tool. The Spacing tool measures the distance between the first and the last shape, and positions the interior shapes at an equal distance between them.

1 Click on an empty space on the work surface to deselect all shapes.

2 Select the left-hand star with the Selection tool.

3 Hold down the Shift key and click May 8 and the other star.



4 Click Arrange > Spacing. The Spacing dialog box opens.

5 Choose Horizontal Gap as shown in the illustration.

6 Click OK. Verify that the Spacing tool did not shift the text May 8 off center within the border.

Grouping shapes

Grouping multiple shapes together allows them to act as one shape. For example, you can select one object in the group and all the others become selected.

1. With the stars and the text May 8 still selected, click Arrange > Group.
2. To see how the grouping works, cancel the selection by clicking on the work surface away from the shapes.
3. Click a star with the Selection tool. Notice how all the shapes in the line are selected.

Note: To remove the Group function from your shapes, select the shapes and click Arrange > Ungroup.

> **Tip:** Temporary ungroup allows you to select and change one or more items from a series of grouped shapes. Hold down the Ctrl key and click the item with the Selection tool. Only that shape is highlighted.

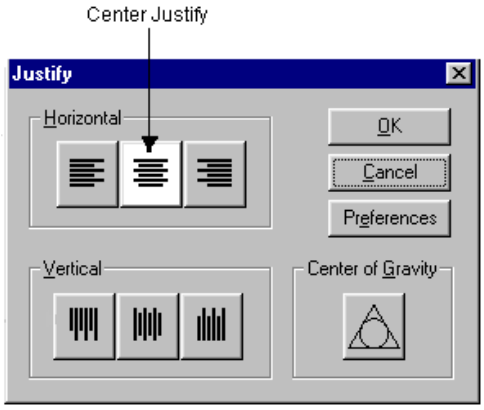
Justifying the design

Quick instructions

Horizontal Center justify the newly grouped line with the border.

Detailed instructions

1. Click Select > All.
2. Click Arrange > Justify. The Justify dialog box opens.



3. Select the Horizontal Center Justify button.
4. Click OK.

Note: If the stars and May 8 had not been grouped, each item would have been stacked one on top of the other when Center justified.

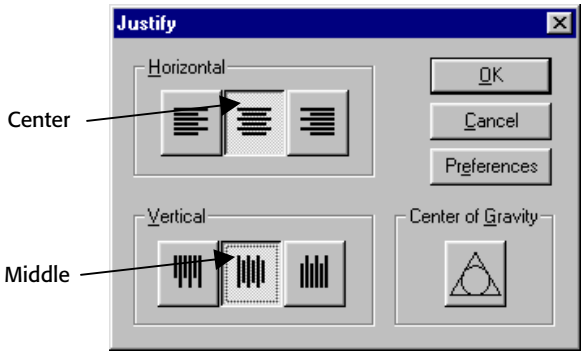
Grouping and justifying the design

Quick instructions

Group the shapes within the border. Center and middle justify the entire design. Save the design when you are done.

Detailed instructions

1. Select everything inside the border, but do not select the border. Do this by holding down the Shift key and selecting each shape, or by drawing a marquee selection box around the inside shapes.
2. Click Arrange > Group.
3. Click Select > All.
4. Click Arrange > Justify. The Justify dialog box opens.



5. Select the Center and Middle Justify buttons to stack the objects.
6. Click OK.

Note: If the interior design had not been grouped, each item would have been stacked one on top of the other.

7. Click File > Save.

This completes Lesson 4. Please do the exercises that follow to review what you have just learned.

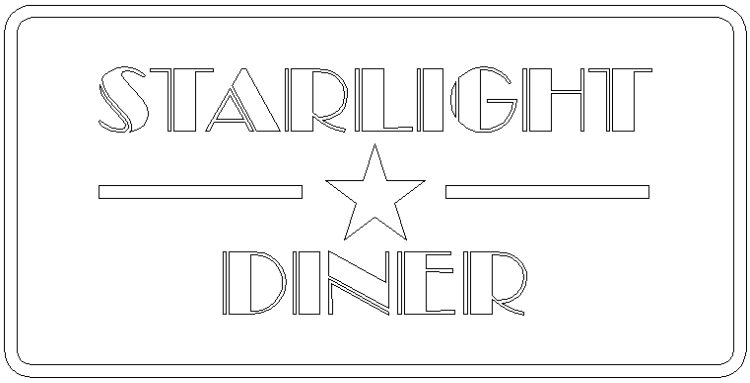
Lesson 4: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

To open a blank Composer document, click File > New.

Exercise 1

Recreate the design as it appears below. The font is Broadway Engraved with a letter height of **1"** (2.54 cm). The border height is **6"** (15.24 cm), length is **12"** (30.48 cm), and thickness is **0.2"** (5.08 mm). The radius is **0.25 "** (6.35mm).



Exercise 2

Recreate the design as it appears below. The fonts are Century Bold Italic at **4"** (10.16 cm) and Gill Sans Bold at **2"** (5.08 cm). The border height is **24"** (60.96 cm), length is **50"** (127 cm), and thickness is **0.5"** (1.25 cm).

Lesson 5:
Plotting a basic vinyl sign

In this lesson you will cut the sign using the following techniques:

- Assigning a vinyl color
- Outputting the design to a plotter
- Working with panel lines
- Creating a mirror image

For more information on using these features refer to OMEGA Help.

Opening a saved file

Quick instructions

Open the saved file, GRAND OPENING.plt.

Detailed instructions

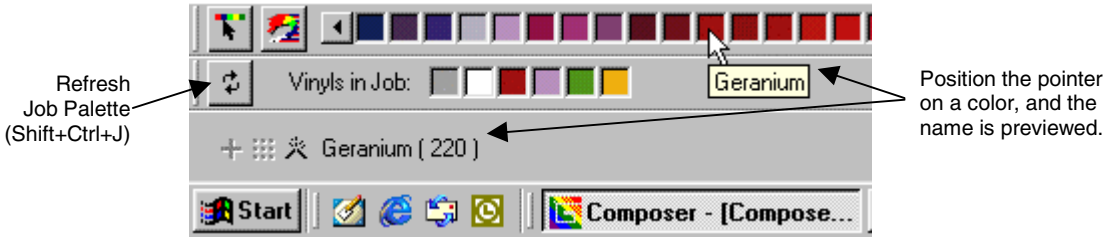
To retrieve the file, click Window > GRAND OPENING.plt. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type list, and change the file type to PLT – Gerber Plot File.
3. Click the Look in drop down list, and navigate to the folder you created to hold your files (for example: *My Lessons*).
4. Double-click to open the folder.
5. Choose GRAND OPENING.plt, and click OK.

> **Tip:** You can open multiple windows at the same time. With different files open, you can easily copy and paste from one file to another.
>
> You can display the same file in different windows by clicking Window > New Window and then tiling the windows so that you can view both. Display the same file in filled and wireframe mode, or at different zoom levels. You can Detail Edit while zoomed closely and watch the change occur in a wider view.

Assigning color

1. Click Select > All to select the entire design.
2. Click any swatch color on the vinyl palette to activate the palette.
3. Move the pointer across the swatch colors to locate Geranium Red.

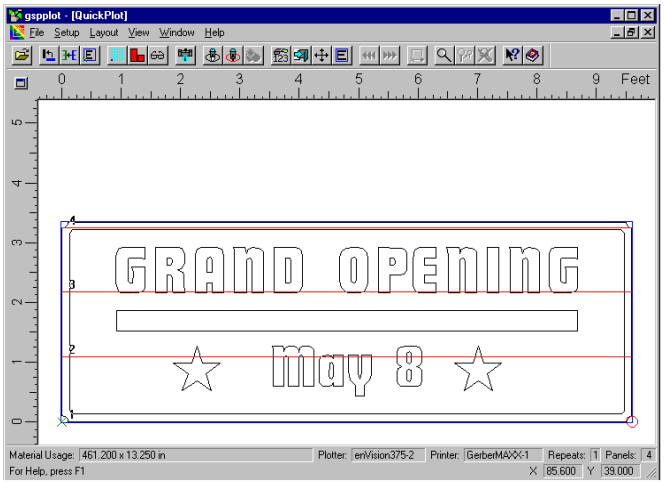


4. Click Geranium (220).
5. To view the color in your job, click View > Filled.
6. Click View > Wireframe.

> **Tip:** Click the Refresh Job Palette button to refresh the job palette to display only the vinyls currently used in the job. Alternately you can refresh the palette by clicking View > Vinyl Palette > Refresh Job Palette.

Plotting a vinyl sign

1. Click File > Output All. The GSPPlot window opens.



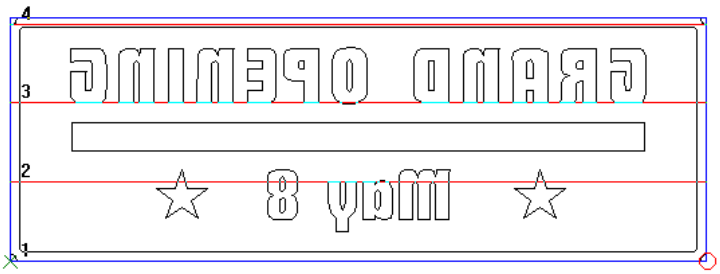
The above illustration demonstrates how the sign is cut on a 15" plotter. Your screen may look different than the illustration. Large format plotters have fewer, if any, panel lines (the red, numbered lines displayed within a graphic in GSPPlot).

Reversing the design

Reversing the design is essential for graphics being viewed through a clear substrate, or material being applied using a heat transfer device.

1 Click the Reverse icon on the GSPPlot toolbar to cut the sign in reverse. When the "Panels have changed…" message displays click OK. The design is viewed as if looking from the back.

> **Tip:** Many message boxes have the option to not be displayed. Turn on "Don't Show This Message Again" in the dialog box. If you would like to display the message again, you can turn it on in the Options dialog box.



Changing panel line position

Panel lines are cut lines placed in a job when it exceeds the cutting area of the designated plotter. Panel lines can be repositioned for the purpose of making it easier to apply. The width between panel lines is restricted to the cutting area of your plotter.

1 Position the pointer over the top panel line. The pointer changes to a pair of scissors.

2 Click and drag the panel line down so it is positioned between the text and the top of the border.

3 Position the pointer over the second panel line from the top.

4 Click and drag down, so it is positioned between GRAND OPENING and the rectangle.

5 Position the pointer over the bottom panel line.

6 Click and drag down. Notice how the panel line cannot move below or above the text. This is because it cannot make panel 1 or 2 larger than the cutting area.

Adding panel lines

1. Position the pointer in the horizontal ruler.
2. Click and drag a panel line into the design.
3. When the panel line is positioned between the rectangle and May 8, release the mouse button to set the line. A fifth panel is added to the design.
4. Click and drag the bottom panel line below the text.

Using the enVision

This lesson uses the Gerber enVision™ 375 to cut the job. If you have a different plotter the procedures may vary. See your plotter manual for instructions.

Note: If you have not installed an enVision 375, follow the directions on installing a printer in Getting Started with OMEGA or see Help.

Changing Plotter Settings

Depending on the features of your plotter, some plotter settings can be adjusted from GSPPlot. The Settings button in the Plotter/Printer Select dialog box provides access to plotter settings. The communications ability of your plotter determines the settings that you can adjust. On a plotter with limited communications ability, speed is the only setting that can be adjusted. On a plotter with advanced communications ability (such as the enVision 375), you can adjust speed, acceleration, force and sharp corners (offset).

Note: If the correct material for the job is loaded in the plotter, the default plotter settings should NOT need to be changed. This lesson explains how to change the settings if the results are not acceptable.

1. Click the Device Select icon to open the Plotter/Printer Select dialog box.
2. Choose the enVision375 from the plotter list.
3. Click Settings to open the Plotter Settings dialog box. Click the Advanced button to view the settings in measurements rather than percentages.
4. Use the slider bars to change the settings.
5. Click Cancel to exit the Plotter Settings dialog box without making any changes. In this lesson we are accepting the default settings.

Cutting the design

1. Click the Cut/Pounce icon to send the design to the plotter.
2. Refer to your plotter manual for cutting instructions.

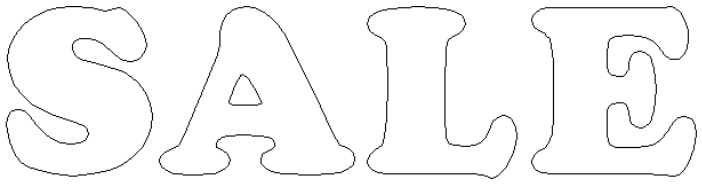
This completes Lesson 5. Please do the exercises that follow to review what you have just learned.

Chapter 2: Practice Examples

The following examples range in their degree of difficulty. For help with the examples, review the previous lessons. Step-by-step instructions for completing the examples are posted on Gerber's web site at *www.gspinc.com*. They are located in the Customer Corner and in the Literature section.

Practice example 1

Font is Cooper Black at **8"** (20.32 cm).

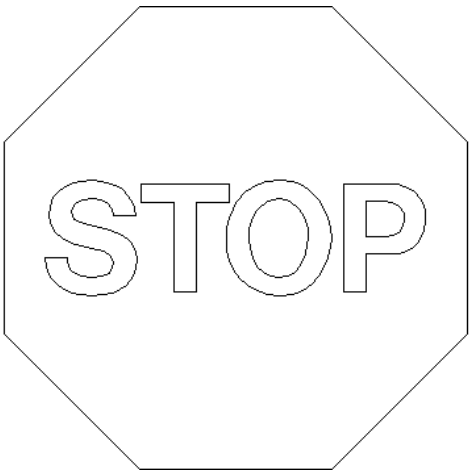


Practice example 2

Font is Jenson Medium at **1"** (2.54 cm).

Practice example 3

Font is Helvetica Medium at **3"** (7.62 cm).

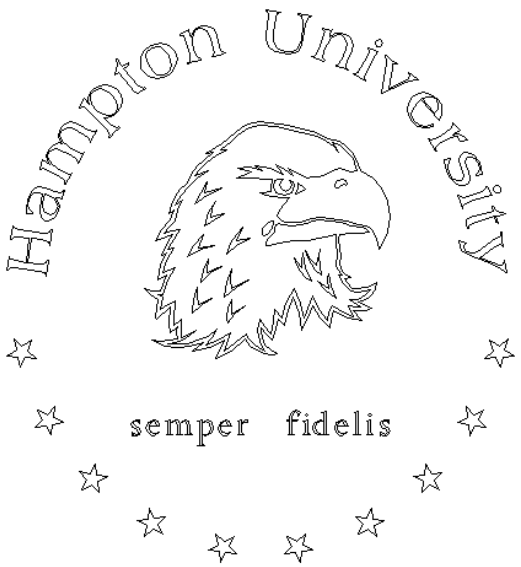


Chapter 3:
Visually Enhancing Designs

This chapter covers all the tools needed to create the above sign. The techniques you will learn are:

- Importing files
- Repeating shapes
- Outlining shapes
- Distorting shapes
- Applying a shadow
- Adhering shapes to a path
- Rotating shapes

Lesson 6:
Importing, Repeats, and Fit Text to Path



In this lesson you will create the above sign using the following new techniques:

- Importing a file
- Repeating shapes
- Adhering shapes and text to a path

For more information on using these features refer to OMEGA Help.

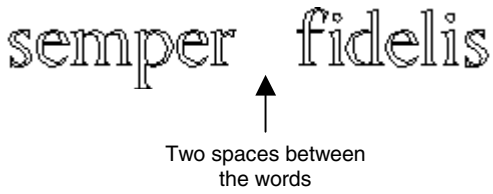
Creating the text

Quick instructions

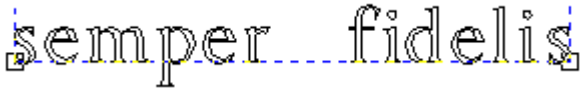
Recreate the above text. The font for **Hampton University** is Americana Bold with a letter height of **1"** (2.54 cm). The font for **semper fidelis** is Perpetua Regular with a letter height of **0.6"** (15.24 mm). Place an extra space between the words semper fidelis. Both lines of text are character spaced.

Detailed instructions

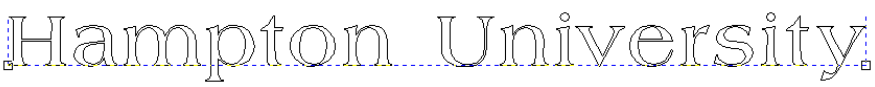
1. Click the Text on the Work Surface (TOWS) tool from the Toolbox toolbar.
2. Click the Select Font list down arrow, and scroll to find Americana Bold. Click the font to make it active.
3. Double-click the Font Height box, and type **1"** (2.54 cm).
4. Click anywhere on the work surface.
5. Type **Hampton University**. Press Enter.
6. Click the Select Font list down arrow, and scroll to find Perpetua Regular.
7. Double-click the Font Height text box, and type **0.6"** (15.24 mm)**.**
8. Press Enter.
9. Type **semper fidelis**. Place two spaces between the words.



10. Click Zoom to All.
11. Turn on Character Spacing by clicking the Character Spacing button on the text toolbar.
12. Place the pointer on one of the corner handles, click and drag out. Release the mouse button to set the spacing.



13. Turn off Character Spacing by clicking the Character Spacing button again.
14. Press the up arrow on the keyboard to place the cursor on the first line of text.
15. Turn on Character Spacing.
16. Place the pointer on one of the corner handles and drag out. Release the mouse button to set the spacing.

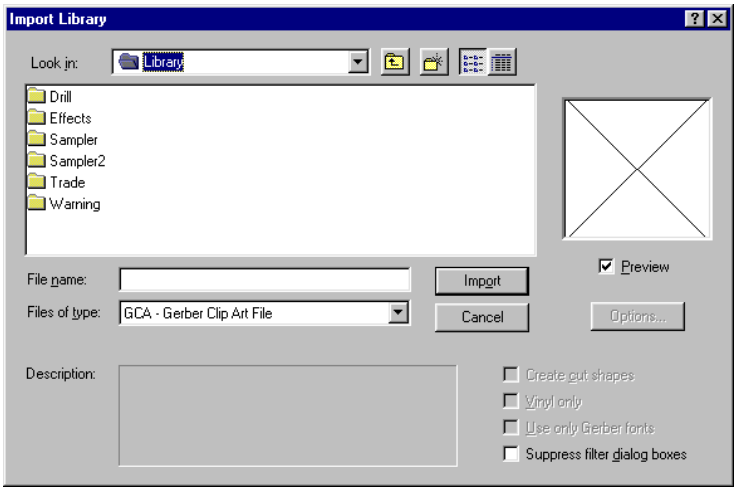


17. Turn off Character Spacing.

Importing a library file

Library files: A number of vector-based graphics are supplied with OMEGA. Some are installed directly onto the hard drive, others can be pulled off the OMEGA CD.

1 Click File > Library. The Open window opens.



2 Open C:\GSP\Library\Sampler2\Eagle.gca file.

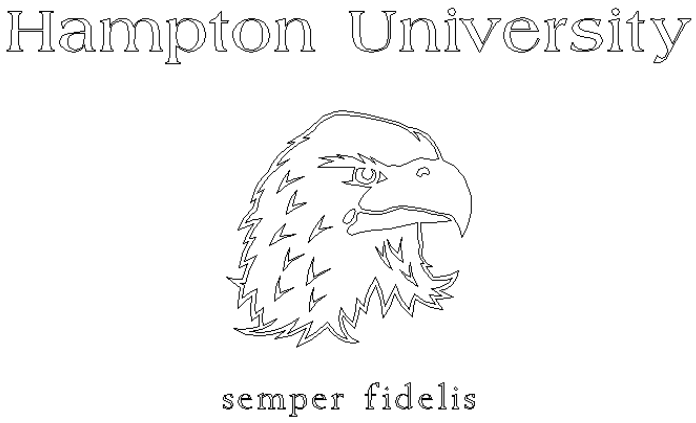
3 Click Zoom to All.

Tip: You can use File > Open or File > Import to import library files or graphic files. Open creates a new Composer file; Import places the imported object within the current file.

Positioning the text

Quick instructions

Position the text as it appears below and center justify the design.



Detailed instructions

1. Click the Selection tool.
2. Click on the text Hampton University, and drag it above the eagle's head. *Don't be concerned with the centering of the text.*
3. Click and drag the text semper fidelis into position.
4. Marquee select all elements of the eagle and click Arrange > Group to group the design
5. Click Select > All to select the entire design.
6. Click Arrange > Justify. The Justify dialog box opens.
7. Click the Horizontal Center Justify button (shortcut key 2) and turn off any other buttons. Click OK.
8. Click Zoom to All (shortcut key spacebar).

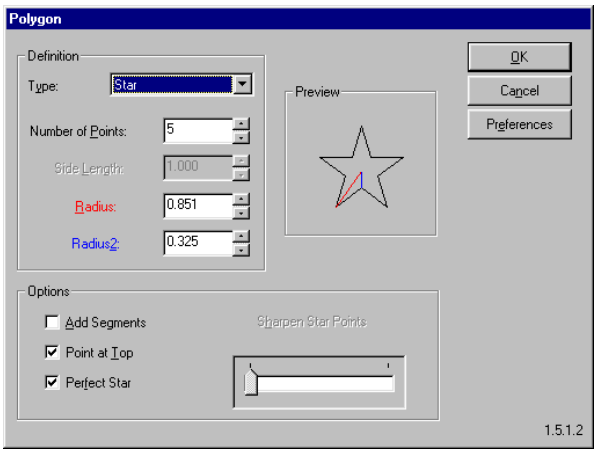
Creating a star

Quick instructions

Create a perfect star and size it to be **0.7"** (17.7 mm). Position the star below semper fidelis. *Do not be concerned with the exact placement of the star.*

Detailed instructions

1. Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.
2. Click the Polygon tool.
3. Click anywhere below the text semper fidelis. The Polygon dialog box opens.

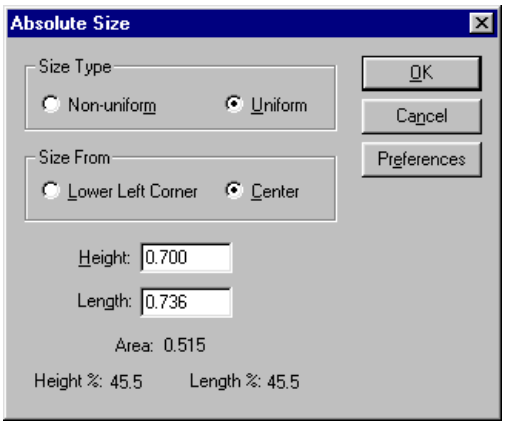


4. Select Star as the Definition type.
5. Turn on Point at Top and Perfect Star.

6 Click OK. Do not be concerned with the exact placement of the star.

7 Click the Selection tool to select the star.

8 Click Shape > Absolute Size. The Absolute Size dialog box opens.



Tab key: Use the Tab key on the keyboard to quickly move between fields in a dialog box.

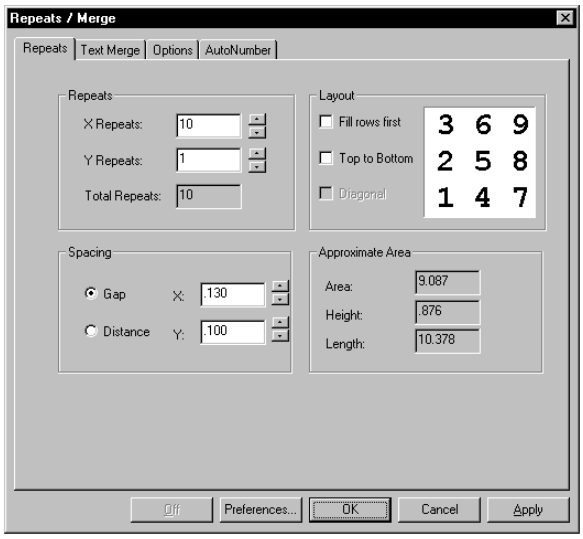
9 Choose Uniform.

10 Enter a height of **0.7"** (17.7 mm), and press the Tab key on the keyboard. The length text box automatically is updated.

11 Click OK.

Repeating shapes

1 With the star selected, click Tools > Repeats/Merge. The Repeats/Merge dialog box opens.



2 Enter **10"** (25.40 cm) in the X Repeats text box.

3 Enter **1"** (2.54 cm) in the Y Repeats text box.

Note: X and Y values must equal 1 or greater.

4 Choose Gap in the Spacing box.

5 Click OK.

Creating an oval

1 Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.

2 Click the Circle tool.

3 Click and drag an oval of any size and release the mouse to set the oval. *Do not be concerned with size and placement.*

4 Click Zoom to All.

Tip: Ways of working with the Circle tool.

- To create an oval, click and drag an oval with the Circle tool.
- To create a circle, hold down the Ctrl key and click and drag a circle with the Circle tool.
- To create an oval or a circle from the center point, hold down the Shift key (and the Ctrl key for a circle) and click and drag.

Note: Release the mouse button to set the circle before releasing the keyboard keys.

Sizing precisely

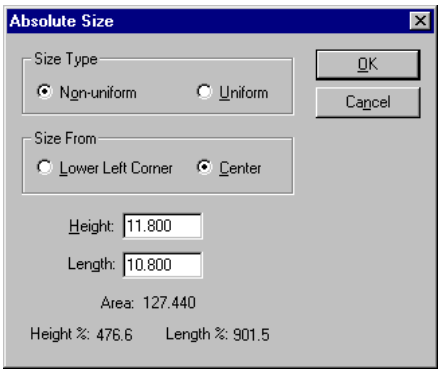
Quick instructions

Size the oval to **11.8"** (29.97 cm) by **10.8"** (27.43 cm)**.**

Detailed instructions

1 Click the Selection tool to select the oval.

2 Click Shape > Absolute Size. The Absolute Size dialog box opens.



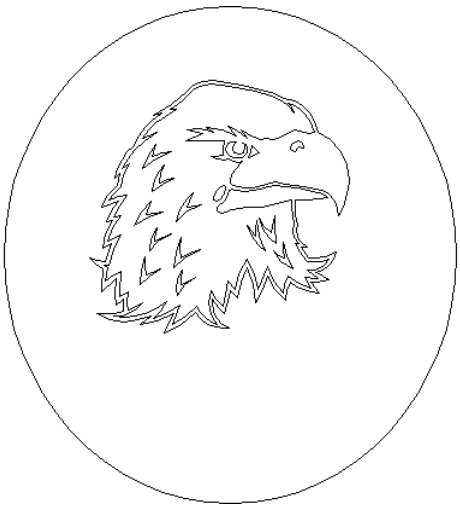
3 Choose Non-Uniform from the Size Type box.

4 Enter **11.8"** (29.97 cm) in the Height text box.

5 Enter **10.8"** (27.43 cm) in the Length text box.

6 Click OK.

7 Using the Selection tool, click and drag the oval into position around the eagle.



Adhering text to a path

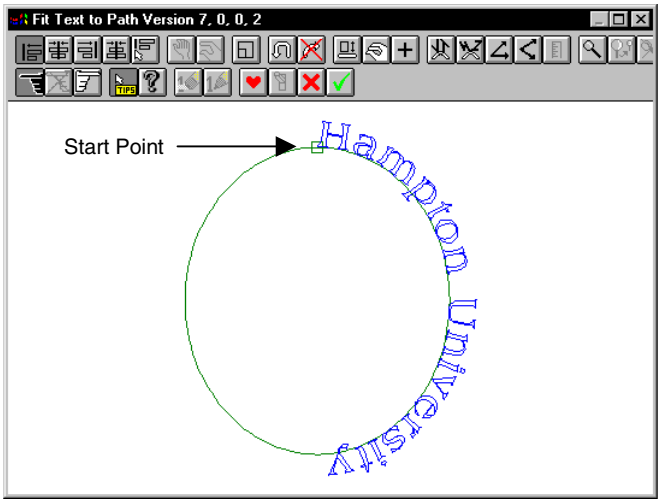
Fit Text to Path: Any shape, including letters, can be the path. Any single line of text or repeated shape can be placed on a path.

1 Select the oval.

2 Hold down the Shift key and click the text Hampton University.

Note: The shape that is the path must be selected first. This indicates which item is the path as opposed to what is following the path.

3 Click Tools > Fit Text to Path. The Fit Text to Path dialog box opens.



4 Click Center on Start Point. The start point is the green box that sits on the path. The text moves to the top of the oval.

5 Click OK (green checkmark) to accept the changes and return to Composer.

6 Cancel the selection by clicking anywhere on the work surface.

Note: To edit or turn off a Fit Text to Path, double-click the shapes or text. The Fit Text to Path dialog box opens. Click Fit Text to Path Off.

Adhering shapes to a path

1 Select the oval with the Selection tool.

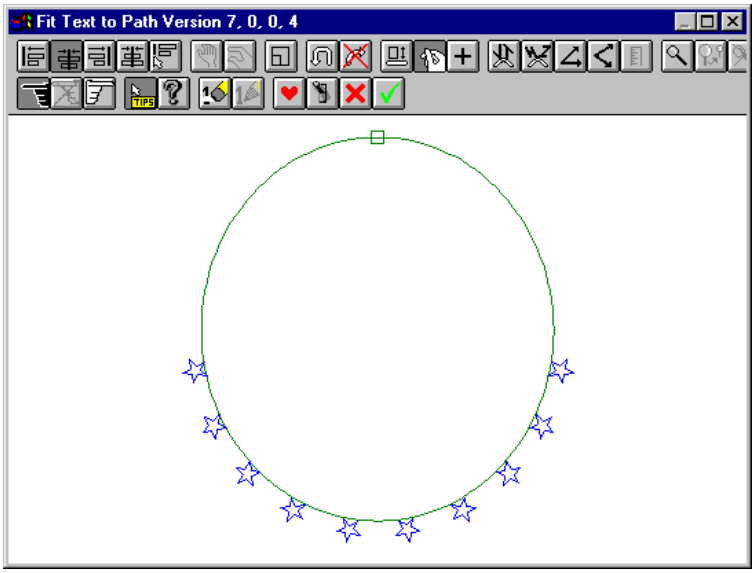
2 Hold down the Shift key, and draw a marquee box around the stars. Do *not* group the stars.

3 Click Tools > Fit Text to Path. The Fit Text to Path dialog box opens.

4 Click Center Justify to position the stars at the bottom of the oval.

5 Click Reverse Selection (located on the lower toolbar) to select all the stars. The stars will be red when selected.

6 Click the Space tool. Position the Space tool on the first star and click and drag. The stars are spaced evenly in both directions. Release the mouse to set the spacing.



Note: The Space and Move Tools are only accessible when one or more shape is selected.

7 Click Hide Text Path. Hiding the text path removes the path from view in Composer.

8 Click OK (green check button) to return to Composer.

> **Tip:** To select shapes in Fit Text to Path, use one of the following techniques:
>
> - To select all, click Reverse Selection when nothing is selected, or F2 when nothing or a portion of the job is currently selected.
> - To select a part of the design, click the Selection tool from the Fit Text to Path dialog box, and click and drag a marquee box around the shapes. In order to select a shape, you must encompass the entire shape by the marquee selection box.

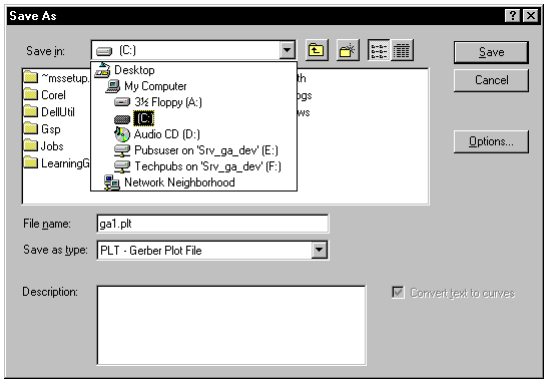
Saving the job

Quick instructions

Save the file in the Jobs folder as HamptonU.plt

Detailed instructions

1 Click File > Save As. The Save As dialog box opens.



2 Click the Save in list down arrow. Open C:\Jobs folder.

3 Click the Save as type list down arrow. Select PLT – Gerber Plot File as the file type.

4 Type **HamptonU.plt** in the File name box.

5 Click Save.

This completes Lesson 6. Please do the exercises that follow to review what you have just learned.

> **Tip:** You can save files in a variety of formats including JPG, BMP, and GA 6.2. Saving files in formats other than PLT is the same as exporting these files. Many export filters have export options that allow you to specify how files are saved. See OMEGA help for details on using OMEGA's export filters.

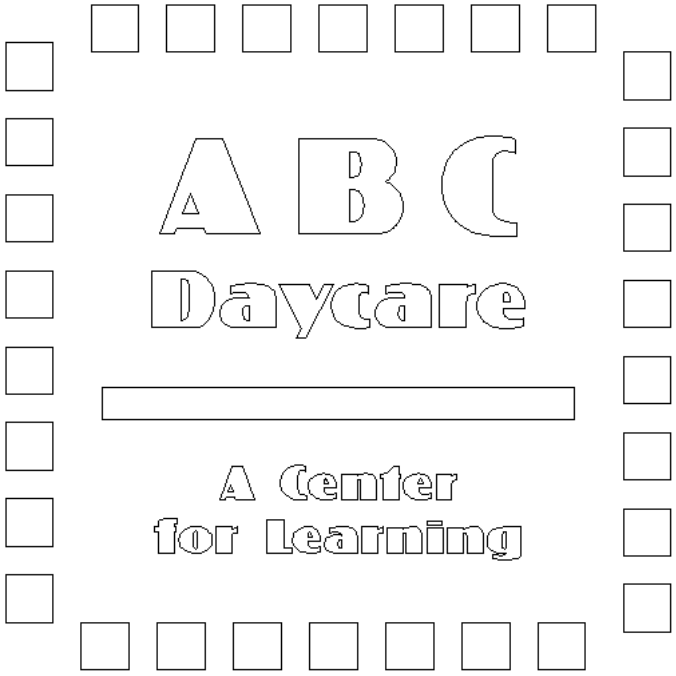
Lesson 6: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

Recreate the design as it appears below. The font is Koloss, and the heights are **2"** (5.08 cm), **1.2"** (3.04 cm), and **.7"** (1.78 cm). There are 30, **1"** (2.54 cm) **x 1"** (2.54 cm) boxes, placed around a **12"** (30.48 cm) **x 12"** (30.48 cm) box.

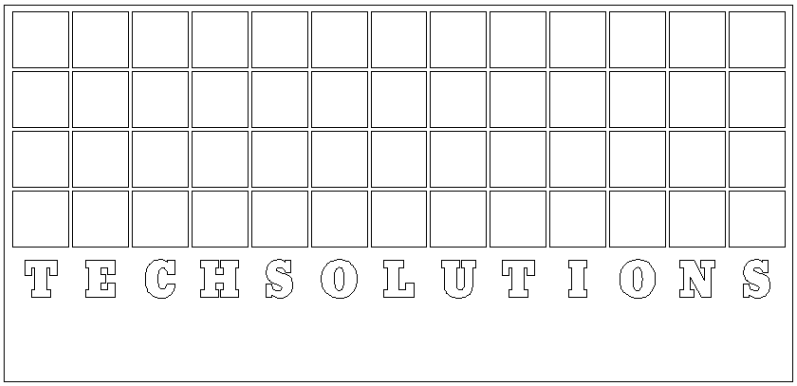
Click File > New.



Exercise 2

Recreate the design as it appears below. The font is Stymie Extra Bold with a height of **1"** (2.54 cm). The boxes are **1.5"** (3.81 cm) x **1.5"** (3.81 cm).

Click File > New.



Lesson 7:
Applying advanced modification techniques

In this lesson, you will create the above sign using the following new techniques:

- Distorting shapes
- Applying a shadow
- Applying an outline
- Rotating shapes

For more information on using these features refer to OMEGA Help.

Accessing a saved file

Quick instructions

Open the saved file, HamptonU.plt.

Detailed instructions

To retrieve the file, click Window > HamptonU. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type list down arrow, and change the file type to PLT – Gerber Plot File.
3. Click the Look in drop down list, and open C:\Jobs to open the folder.

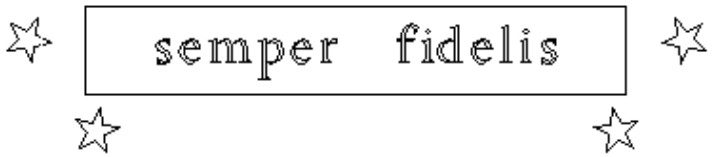
4 Choose HamptonU, and click Open.

> **Tip:** The Import or Open dialog box contains four check boxes that may be available depending on the chosen file format.
>
> ***Create cut shapes*** -- Turn on to place a cutline on each shape that is imported. This check box is not available if the Vinyl only is turned on.
>
> ***Vinyl only*** – Turn on to create a plot file that is all vinyl shapes with unknown vinyl colors. Fills and strokes are ignored. Vinyl only is the default setting of OMEGA CL and OMEGA CS systems.
>
> ***Use only Gerber fonts*** -- Turn on to convert all text to Gerber fonts. Turn off to import TrueType fonts as Gerber Small Text.
>
> ***Suppress filter dialog boxes*** -- Turn on this check box before importing multiple files so that the Batch import sequence continues without interruption. Turn off this check box when importing single files.

Creating and justifying the box

Quick instructions

Draw a box around the text semper fidelis. Center and middle justify the box to the text.

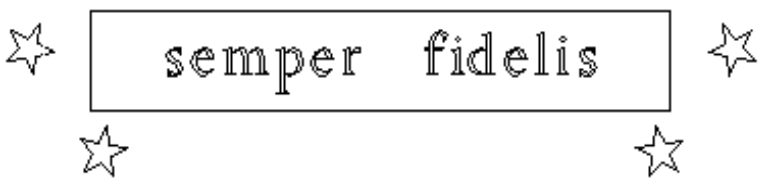


Detailed instructions

1 Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.

2 Click the Box tool.

3 Position the crosshair where you want the starting corner to be, and click and drag.

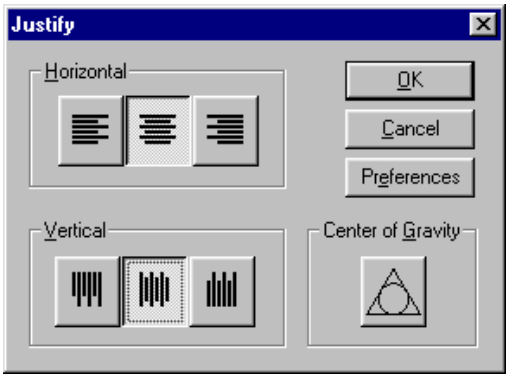


4 Release the mouse to complete the box. Do not be concerned with the position of the box.

5 Click the Selection tool to select the box.

6 Hold down the Shift key and click the text semper fidelis.

7 Click Arrange > Justify. The Justify dialog box opens.



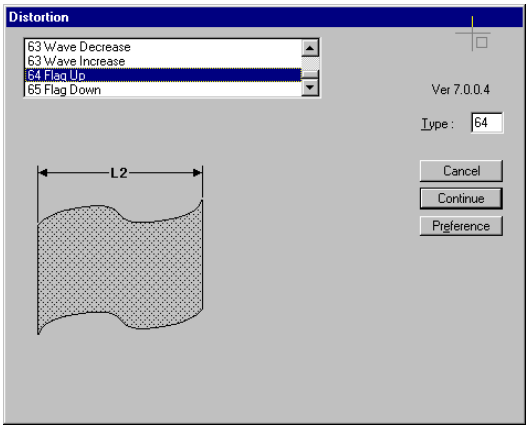
8 Click the Horizontal Center and Vertical Middle justify buttons. (Shortcut key 7.)

9 Click OK.

Distorting a shape

1 Select the box and the text semper fidelis if they are not currently selected. Use a marquee selection box, or hold down the Shift key to select both items.

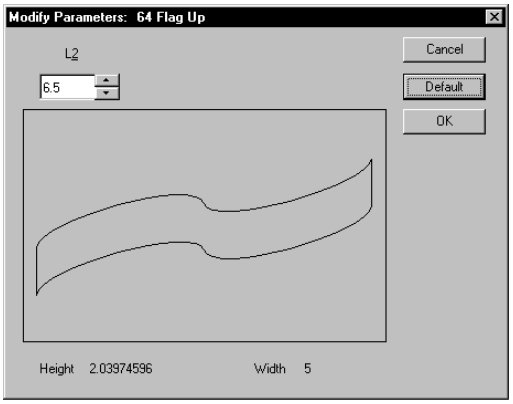
2 Click Tools > Distortion. The Distortion dialog box opens.



3 Click the Distortion down arrow to scroll through the list of distortions.

4 Click distortion 64 Flag Up to make it active.

5 Click Continue. The Modify Parameters dialog box opens.



6 Type **6.5"** (16.51 cm) in the L2 text box.

7 Click OK.

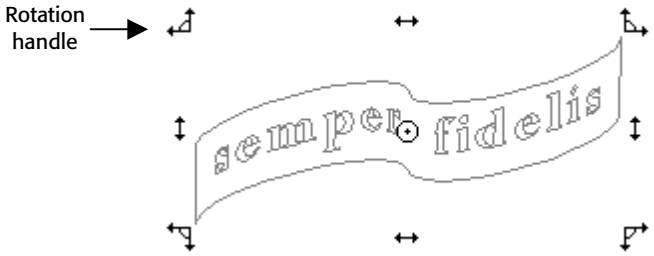
8 Click and drag the distortion into position under the eagle.

Note: To edit or turn off a distortion, double-click the distorted shape with the Selection tool. The Modify Parameters dialog box opens. Change the parameters or click Cancel to return to the Distortion dialog box. Select a new distortion and click Continue, or click Distortion Off to delete the distortion.

Rotating shapes

1 Select the distorted shapes (they will be grouped), if they are not currently selected. Click once more on the shape to activate the rotation and slant options. The sizing handles will change to rotation arrows.

Note: If the Distortion Parameter box opens, click Cancel, and click the flag more slowly.



2 Position the selection pointer over the upper-left corner rotation handle. The pointer changes to a crosshair. Click and drag up to make the flag horizontal.

3 If necessary, move the distorted shape back into place.

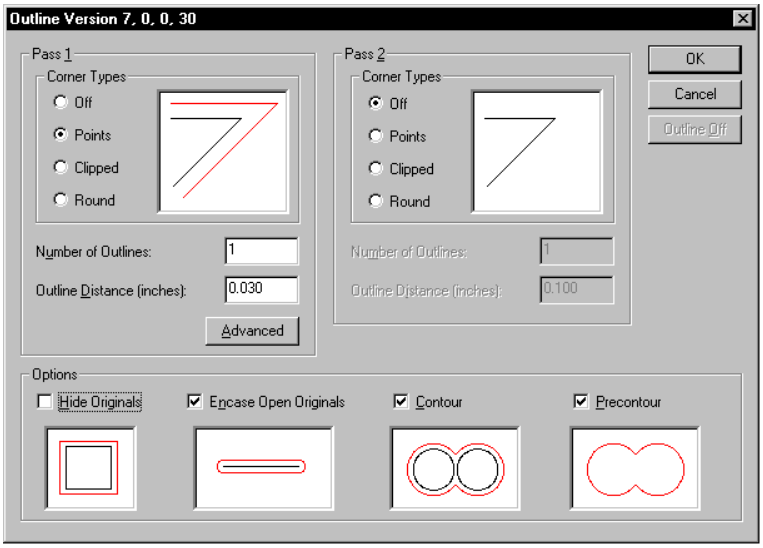
4 Cancel the selection by clicking on the work surface.

> **Tip:** If you know the rotation angle, simply select the shape and click Shape > Directed Rotate and enter the angle. You can also rotate shapes via Shape > Keyboard Rotate. Read and follow the instructions for rotating the shape. Click OK.

Outlining a shape

1 With the Selection tool, hold down the Shift key and select each star.

2 Click Tools > Outline. The Outline dialog box opens.



3 Choose Points from the Pass 1 Corner Type box.

4 Enter **1** in the Number of Outlines text box.

5 Enter **.03"** (.76 mm) in the Outline Distance text box.

Note: Make sure Hide Originals in the Options box is turned off (no check mark), or you will not see the original shape in Composer.

6 Click OK.

7 Cancel the selection by clicking anywhere on the work surface.

Note: To edit or turn off an Outline, double-click the outline with the Selection tool. The Outline dialog box appears. You can enter new information or delete an outline by clicking the Outline Off button in the upper right corner.

Bolding a Gerber font

Try this procedure to fully utilize all the options in the Outline feature.

1 Using the Selection tool, click Hampton University to select it.

2 Click Tools > Outline. The Outline dialog box opens.

3 Choose Points from the Pass 1 Corner Types box.

4 Enter **1** in the Number of Outlines text box.

5 Enter **0.05"** (1.27 mm) in the Outline Distance text box.

6 Turn on Hide Originals from the Options box.

7 Click OK to return to Composer.

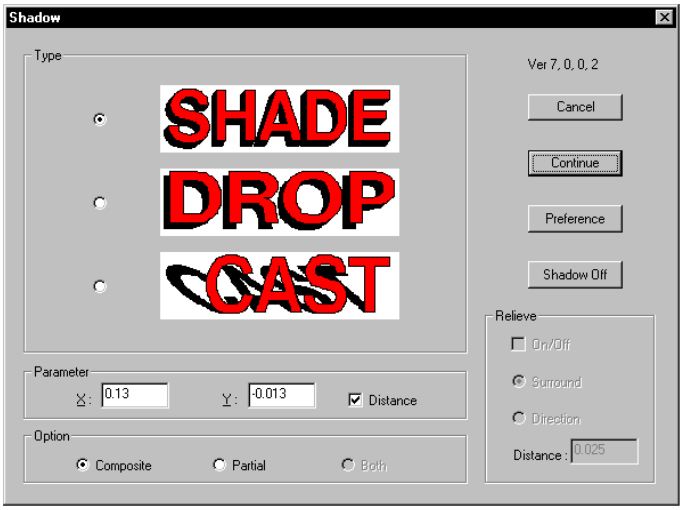
8 If your outline appears too large and merges your text together, double-click the text with the Selection tool. The Outline dialog box opens.

9 Set the Outline Distance to **0.03"** (.762 mm), and click OK.

Note: By turning on Hide Originals, you only see the outline shape. This creates a thicker font style.

Applying a shadow

1 With the text Hampton University selected, click Tools > Shadow.



2 Choose Shade from the Type box.

3 Turn on Distance (there should be a check mark) in the Parameter box.

4 Enter **0.13"** (3.302 mm) in the X Parameters text box.

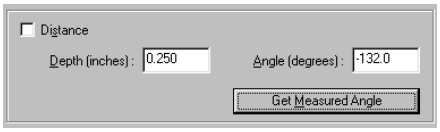
5 Enter **-0.13"** (-3.302 mm) in the Y Parameters text box.

6 Click Continue.

Note: To edit or turn off a shadow, double-click on the shadow with the Selection tool. The Shadow dialog box opens. Make your changes, or click Shadow Off to delete the shadow.

7 Click File > Save.

Tip: You can use the Measure Tool to draw a Shadow angle on the Composer work surface. The angle is automatically copied to the clipboard. When you open the Shadow dialog box, the Get Measured Angle button displays.



Click the Get Measured Angle button to paste the saved angle measurement into the Angle field.

You can use a similar technique with other dialog boxes that accept measurements copied to the clipboard. Use the paste shortcut Ctrl+V to transfer the saved distance measurement to fields in the Outline, Repeats, or Borders dialog box.

This completes Lesson 7. Please do the exercises that follow to review what you have just learned.

Lesson 7: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson. Step-by-step instructions for completing the examples are posted on Gerber's web site at *www.gspinc.com*. They are located in Customer Corner\Literature\Educational Literature.

Exercise 1

This job has been created for you, but needs to be edited to match the design below. Open the file Cake Candles.plt from the C:\Jobs\Learning folder. Edit the shadow and outline.

Exercise 2

This job has been created for you, but needs to be edited to match the design below. Open the file Rodman.plt from the C:\Jobs\Learning folder. You will be working with Shadow and Distortion.

Lesson 8:
Plotting a multiple vinyl job

In this lesson you will cut the sign using the following new techniques:

- Outputting multiple vinyl colors
- Moving between vinyl colors

For more information on using these features refer to OMEGA Help.

Accessing a saved file

Quick instructions

Open the saved file, HamptionU.plt.

Detailed instructions

To retrieve the file, click Window > HamptonU. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type list, and change the file type to PLT - Gerber Plot File.
3. Click the Look in list, and open C:\Jobs.
4. Choose HamptonU.plt, and click Open.

Coloring the job

Quick instructions

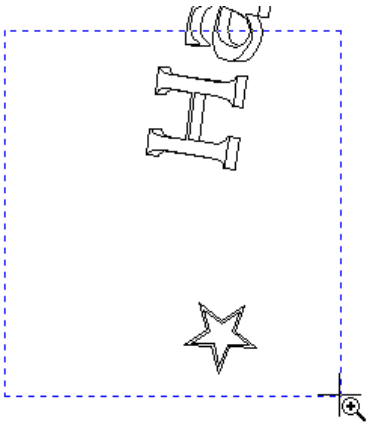
Assign the appropriate vinyl colors to the job.

- Shadow for both text and stars – Black
- Eagle – Black
- Hampton University text – Bright Green
- Semper fidelis text and box – Bright Green
- Stars – Bright Yellow
- Background - White

Detailed instructions

1. Select the eagle with the Selection tool. The whole eagle becomes selected.
2. Click the Black vinyl swatch from the Vinyls in Job palette in the Status Bar.

3. Using the Zoom in tool, magnify a portion of Hampton University and a star.



4. Select the shadow of the text. Hold down the Shift key and select the outline of the stars.
5. Click the Black vinyl swatch from the Vinyl in Job palette in the Status Bar.
6. Click Zoom to All (spacebar).

7. Select the text, Hampton University. Do not select the shadow.
8. Hold down the Shift key and click the distorted rectangle and text.
9. Click the Bright Green color swatch from the vinyl color palette at the bottom of the Composer screen. Locate the color name by moving the pointer across the swatch colors and looking in the left corner of the Status Bar.
10. Select all the stars (if they are grouped you can click anywhere on a star to select them all, if they are not grouped select each one while holding down the shift key).

11 Click the Bright Yellow color swatch from the vinyl palette.

12 Cancel the selection of the stars by clicking anywhere on the work surface away from the design.

13 Click and drag the White color swatch from the Vinyls in Job palette to the work surface. Release the mouse button away from the design. This colors the background.

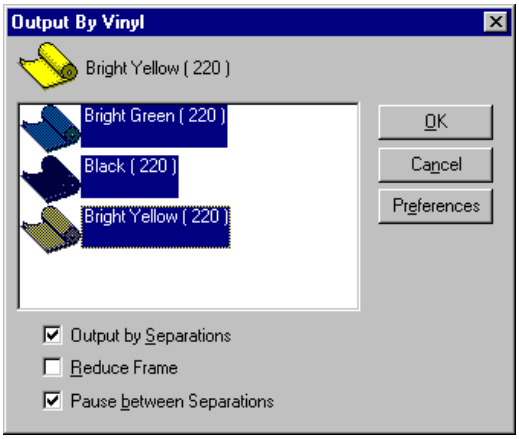
Previewing the colors

Click View > Filled (F8) to preview the colors in the job.

Sending multiple vinyl colors to GSPPlot

1 Click File > Output By Vinyl. The Output by Vinyl dialog box opens.

2 Click the top vinyl color to select it. Hold down the Shift key and click the bottom vinyl color from the list to select all vinyl colors.



3 Turn on Output by Separations to send each vinyl color to GSPPlot separately. Turn on Pause between Separations to stop the plotter after cutting each color to allow you to change the vinyl.

4 Click OK. The GSPPlot dialog box opens.

Tip: Turn on Reduce Frame to conserve vinyl (by shrinking the weed border) when cutting one color of a multiple-color vinyl job. The plotter cuts each vinyl color at 0,0 to minimize vinyl usage, but you must hand register the shapes when assembling the job.

Turn off Reduce Frame when plotting color separations or plotting one part of a multiple vinyl job. The shapes are cut in their final position, making it easy to register the job when assembling it.

Understanding GSPPlot

The GSPPlot toolbar provides the user with a quick and easy way to access dialog boxes and perform many common tasks.

The Open button allows you to select an existing job and open it in GSPPlot.

The Axis Swap button rotates the job 90 degrees.

The Reverse button creates a mirror image.

The Weed Border button toggles between Weed Border On, Weed Border Special, and Weed Border Off. Weed Border is a cut line that surrounds the job.

The Repeats button opens the Repeats and Copies dialog box.

The Panels button opens the Panel Setup dialog box.

The Full View button displays repeats and panels as they are arranged on the vinyl for printing or plotting.

The Device Select button opens the Plotter/Printer Select dialog box.

The Cut/Pounce button sends the job to the plotter to be cut or pounced.

The Pen Plot button sends all shapes to the plotter to be drawn.

The Print button sends the job to the vinyl printer.

The Print Options button opens the Print Options dialog box where you can modify how the job prints. (substitutes, print as process, primers, backing/finishing, etc.)

The Exit button closes GSPPlot.

The Layout button opens the Layout dialog box for sizing, changing gaps, etc.

The Reduce Frame button shrinks the weed border around the job to conserve vinyl.

The Prior Vinyl (PgUp) button sequentially displays the vinyl colors used in the job.

The Next Vinyl (PgDn) button sequentially displays the vinyl colors used in the job.

The Start/End Position button allows you to change the job start and end locations.

The Zoom button magnifies the job one level at a time.

The Zoom Out 1 Level button displays the job at one level wider.

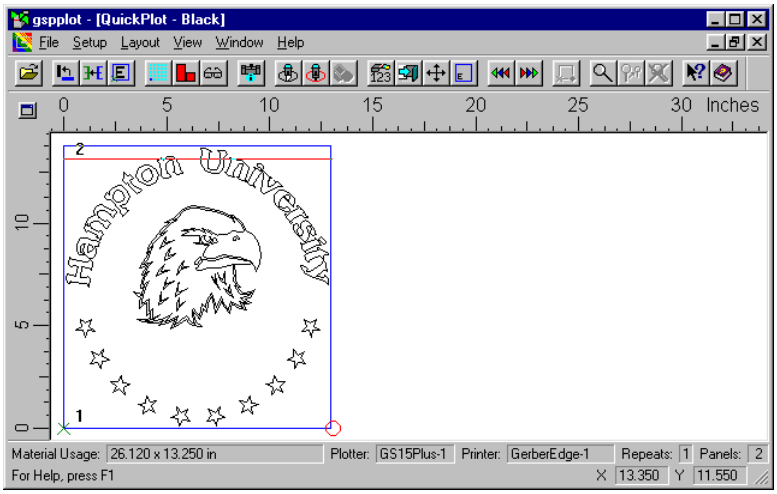
The Zoom Out button displays the entire job.

The Arrow/Question Mark button retrieves the appropriate Help topic for the selected tool, command, or menu item to.

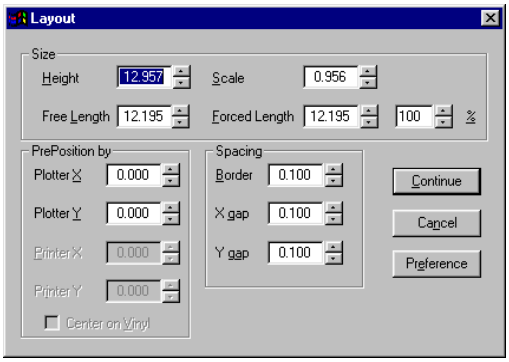
The Help Topics button opens the GSPPlot Help file.

Changing the job size

If you are using a 15" plotter, your design will have a panel line similar to the illustration.

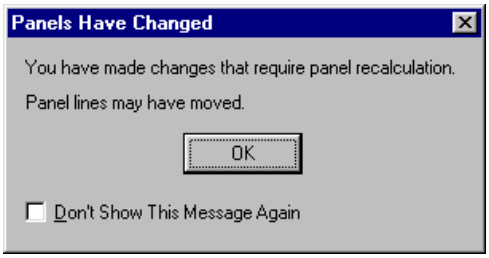


1 Click the Layout icon on the GSPPlot toolbar. The Layout dialog box opens.



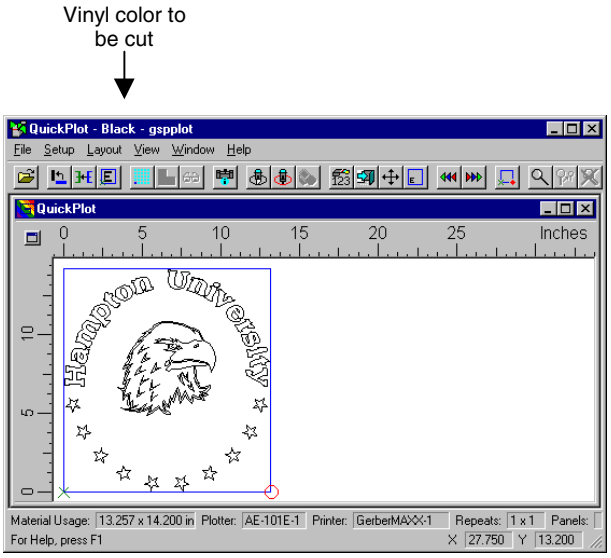
2 Double-click the Height text box, and enter **12.9"** (32.7 cm).

3 Click Continue to open the Panels have Changed dialog box. Click OK.



Cutting multiple vinyls

1 The Title Bar indicates what vinyl color to be cut.



2 Load the plotter with the appropriate vinyl, and click Cut\Pounce from the GSPPlot toolbar.

3 After the Cut/Pounce button is clicked, the window changes to reflect the next vinyl color to be cut. The title bar names the vinyl color ready to be cut.

4 Repeat Step 2 for the rest of the vinyl colors.

Tip: To toggle between vinyl colors, use the Prior Vinyl and Next Vinyl buttons on the toolbar.

Use these buttons when you need to re-cut a vinyl color, or if a particular color is already loaded in the plotter.

This completes Lesson 8. Please do the exercises that follow to review what you have just learned.

Chapter 3: Practice Examples

The following examples range in their degree of difficulty. For help with the examples, review the previous lessons. Step-by-step instructions for completing the examples are posted on Gerber's web site at *www.gspinc.com*. They are located in Customer Corner\Literature\Educational Literature.

Practice Example 1

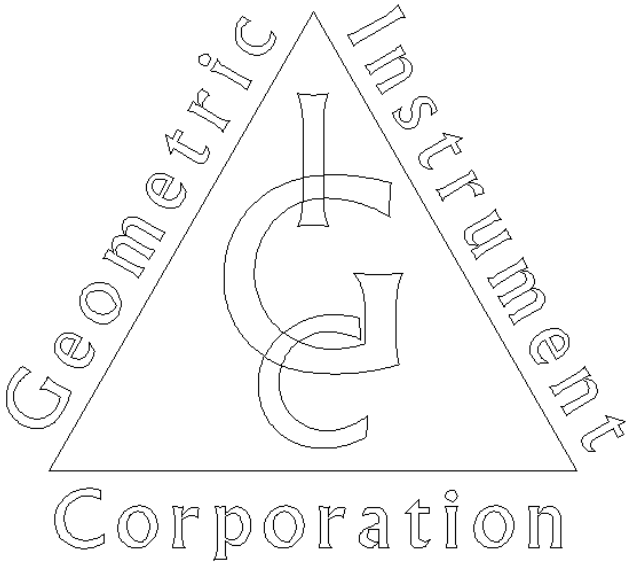
Recreate the example using the font Burgess Brush.

Practice Example 2

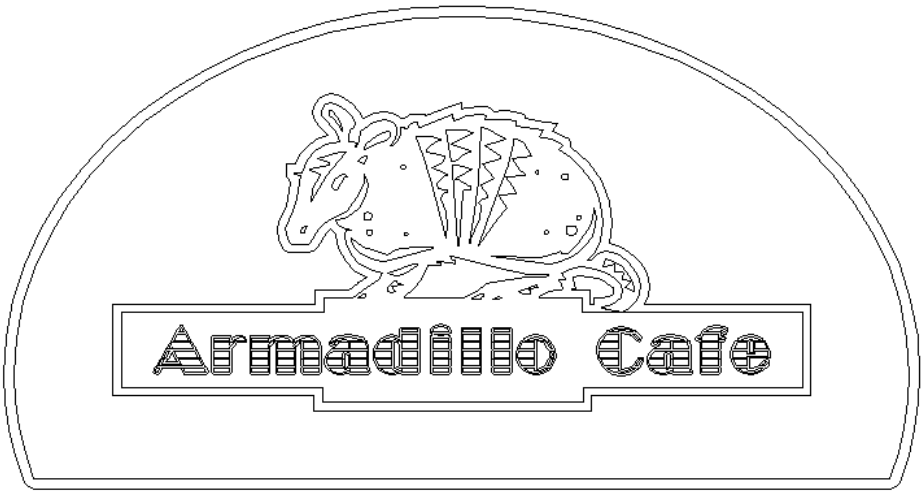
Recreate the example using the fonts Candice and Dom Casual. The wave is located in C:\GSP\Library\Effects\Wave.

Practice Example 3

Recreate the example using the font Albertus.



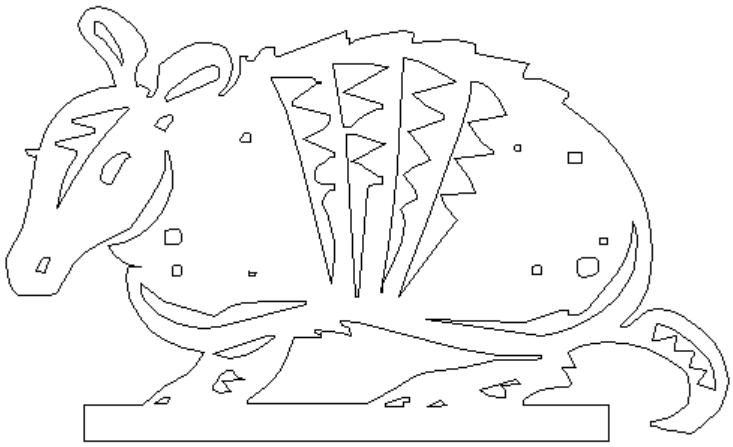
Chapter 4:
Advanced Editing and Special Effects



This chapter covers all the tools needed to create the above sign. The techniques you will learn in the chapter are as follows:

- Scanning in vector shapes
- Editing points and lines
- Contouring shapes
- Adding stripes

Lesson 9:
Converting images to vectors



In this lesson you will create the above sign using the following new techniques:

- Using Scan to Vector
- Deleting points
- Moving points
- Creating a straight line from a curve
- Working with guidelines

For more information on using these features refer to OMEGA Help.

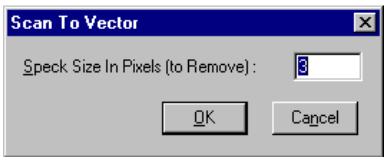
Creating vectors from images

This procedure is best preformed with black and white artwork. Stay away from colors and multi-toned images. See the Help topic, "Scanning for Vinyl Cutting" for detailed information on scanning.

Note: If you do not have access to a scanner, open the Armadillo.plt file located in the C:\Jobs\Learning folder, and skip to Sizing the design on page 66.

The steps that follow for scanning an image may vary slightly depending on the scanning program you are using.

1. Position a copy of this page face down on your scanner bed.
2. In Composer, click File > Scan to Vector. The Scan to Vector dialog box opens.



3. Select a speck size of **3**, and click Continue. The scanning software program opens.

Note: Most scanning programs provide you with a preview of the scanned artwork at this point.

4. Isolate the armadillo by clicking and dragging the sides of the scanning frame. *Refer to your scanning documentation for instructions.*
5. From your scanning program, select the scanning type for a black and white drawing.
6. Set the resolution to **75** dpi.

Speck Size: The number of pixels pooled together. This is used for cleaning up artwork like a photocopy, which may contain little black flecks from dust on the copier.

7 Click the button that begins the scanning process. The armadillo appears in Composer as a vector shape.

8 Rotate the Armadillo so that it displays horizontally on the screen.

Sizing the design

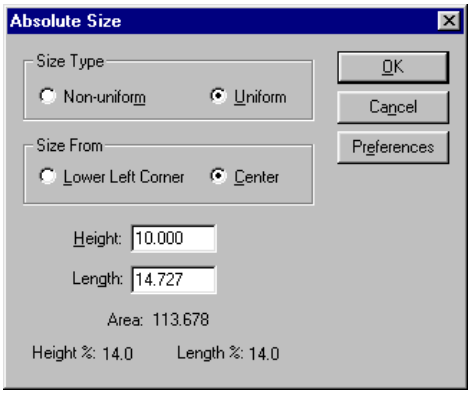
Quick instructions

Size the armadillo to the height of **10"** (25.4 cm).

Detailed instructions

1 Select the armadillo with the Selection tool.

2 Click Shape > Absolute Size. The Absolute Size dialog box opens.



3 Choose Uniform for the Size Type.

4 Enter a height of **10"** (25.4 cm), and press Tab.

5 Click OK.

6 Click Zoom to All.

Adding guidelines

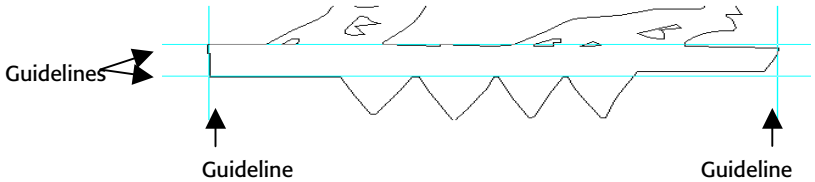
Guidelines: Horizontal and vertical lines placed within a design to aid in positioning and editing of shapes. They are contained in the rulers. Guidelines appear on screen, but they will not print or cut.

1 Position the pointer in the horizontal ruler located above the work area.

2 Click and drag a blue guideline onto the work surface. Drag the guideline to the top of the armadillo's platform.

3 Release the mouse button to set the guideline.

4 Position four guidelines as shown below. For vertical guidelines, click and drag from the vertical ruler.



Note: To reposition a guideline, click Layout > Lock Guidelines. If a check mark appears next to the menu item, click it to turn it off. With the Selection tool, click and drag the guideline to its new location. Lock Guidelines remains off until you turn it back on. When Lock Guidelines is on, guidelines can not be repositioned.

Deleting extra points

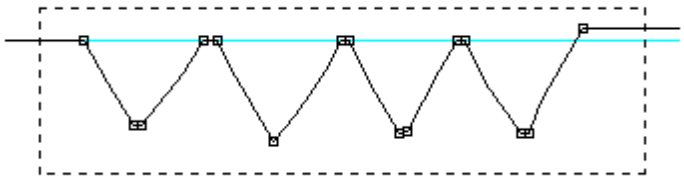
1 Select the armadillo with the Selection tool.

2 Click the small arrow on the Detail Edit tool to flyout toolbar. Drag the Detail Edit toolbar onto the work surface and dock it.

3 Click Delete tool from the Detail Edit toolbar. The lines and points that make up the armadillo appear. The pointer changes to a pencil and the Property bar displays.

4 On the Property bar, turn on Retain Closed Shape and Replace Deleted with Line or Curve. Turn off Allow Single Segment Delete.

5 Using the eraser-end of the pencil, click and drag a marquee box around all but the corner points on the bottom of the armadillo's platform.



6 Release the mouse button to delete the points.

Tip: To delete just one point, position the eraser over the individual point and click.

7 Click View > Redraw to eliminate ghost images of the points.

Note: When using Detail Edit, ghost images of lines and points may be left on the screen. Redraw your screen frequently by clicking View > Redraw (F7), or Zoom to All (spacebar).

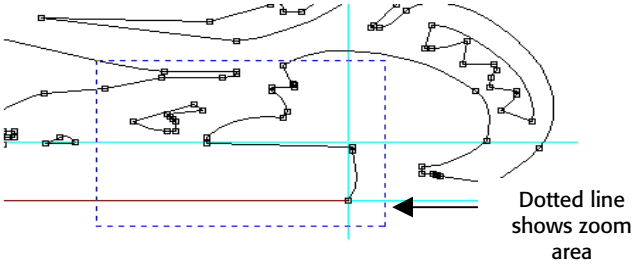
Moving points

Snap to Guidelines: Shapes or points moved within close proximity of a guideline will attach to the guideline.

1 Click Layout > Snap to Guidelines to turn on Snap to Guidelines. A check mark appears next to the menu item.

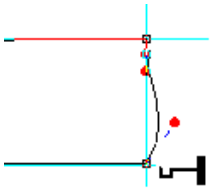
2 Click the Zoom In icon from the Zoom toolbar.

3 Click and drag a marquee box around right-hand side of the armadillo's platform.



4 Click the Move tool from the Detail Edit tool bar. The pencil changes to a hook and the Move Property bar displays.

5 On the Property bar, turn on Retain Closed Shape, Modify Adjacent Segments, Smooth, Allow Point Grabbing, Allow Segment Grabbing, and Show Curve Control Points.



6 Using the hook, click and drag the most bottom right point of the platform to the intersecting guidelines.

7 Repeat Step 5 for the bottom left point, if it is not positioned on top of the guideline. You may need to scroll to the left using the scroll bar along the bottom of the screen.

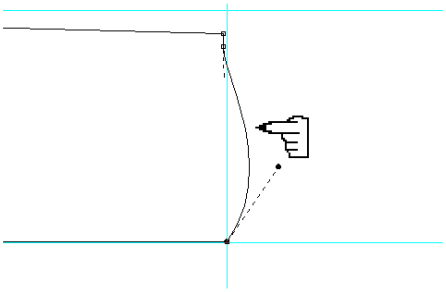
Straightening a curved line

1 Click the Detail Selection tool from the Detail Edit toolbar.
The Detail Selection Property bar displays.

2 On the Property bar turn on Allow Segment Selection.

3 Place the tip of the pointer on the curved line, and click to select the line. The line turns magenta.

Tip: The color of Detail Edit selections can be changed in Tools > Options > General menu. The default color is magenta.



Note: Your scanned design may have more points or points in different positions. To complete this procedure, click the Delete tool, and erase all but the corner points. Select the line, and continue with the lesson.

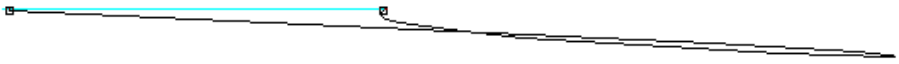
4 Click Detail Edit > Make Line.

5 Click Zoom Out multiple times until the whole platform is viewed.

Tip: The procedure for Make Line works on any curve or looped line segment.

Tip: To learn how to work with open points, or more advanced information on editing shapes with the Detail Edit tools, refer to OMEGA Help.

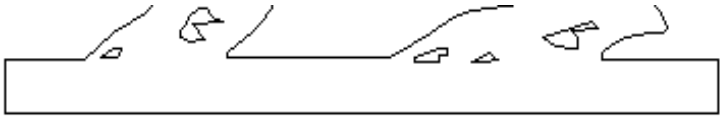
Note: Do not be confused by the appearance of the line. Depending on your design, deleting points may result in looped line segments as shown in the following example. These can be corrected with Make Line.



Detail editing the design

Quick Instructions

Use the Move tool, Delete tool, and Make Line command to straighten the armadillo's platform so it appears as the illustration below.



Detailed Instructions

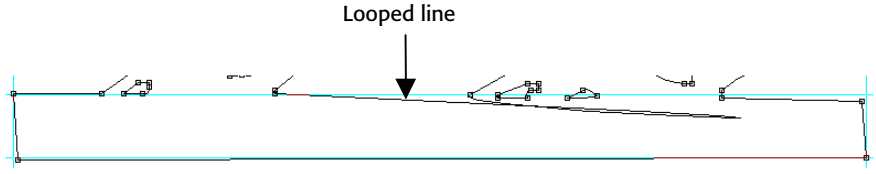
1 Click the Delete tool. The Delete Property bar displays.

2 On the Delete Property bar, turn on Retain Closed Shapes and Replace Deleted with Line or Curve. Allow Single Segment Delete should be turned off.

3 Position the eraser on each point of the platform to be deleted and click. Do not remove the points shown below. *Do not be concerned if the line segments become bowed or looped after you delete the points.*

4 Click View > Redraw to eliminate any ghost images left on the screen.

5 If your design has bowed or looped line segments, like the representation below, click the Detail Selection tool. The Detail Selection Property bar displays.



6 On the Property bar, turn on Allow Segment Selection.

7 Position the pointer on the curved line and click to select it.

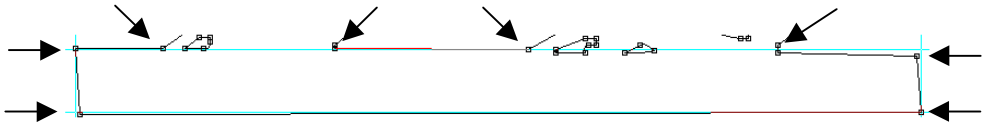
8 Click Detail Edit > Make Line.

9 Repeat Step 5-6 for any curved line in the platform.

10 Click the Move tool.

11 On the Property bar turn on Retain Closed Shape, Modify Adjacent Segments, Smooth, and Allow Point Grabbing. Turn off Show Curve Control Points if the blue lines are confusing.

12 Click and drag the points to the guideline. The points attach to the guideline. The illustration below indicates the points to be moved.



Note: If the points do not snap to the guideline properly, move the point past the guideline and release the mouse button. Then click and drag the point back to the guideline.

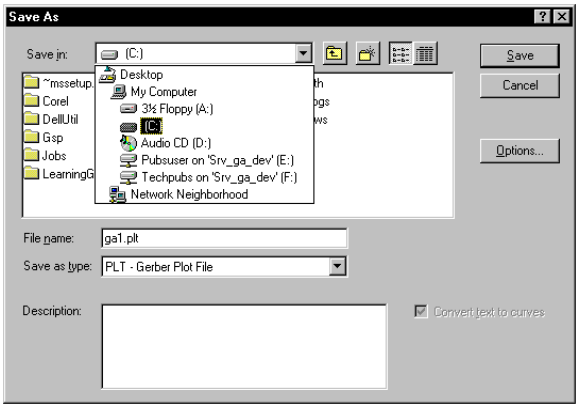
Saving the job

Quick instructions

Save the file in the Jobs folder as ArmCafe.plt

Detailed instructions

1 Click File > Save As. The Save As dialog box opens.



2 Click the Save in list down arrow. Open C:\Jobs folder.

3 Click the Save as type list down arrow. Select PLT – Gerber Plot File as the file type.

4 Type ArmCafe.plt in the File name box.

5 Click Save.

This completes Lesson 9. Please do the exercises that follow to review what you have just learned.

Lesson 9: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

Recreate the design as it appears below. The font is Eurostile Bold, and the heights are **1.5"** (3.81 cm), **1"** (2.54 cm), and **0.4"** (1.67 cm).

Detail Editing Text

1 Create the text using the instructions above.

2 Using the Selection tool, select the text Fredman.

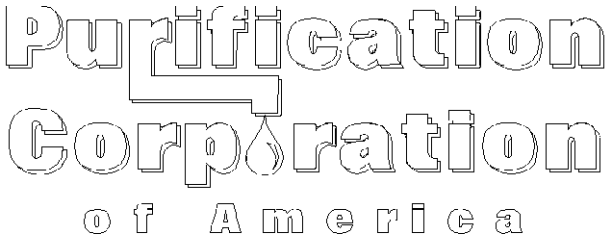
3 Click Text > Remove Text Smart Edit > Normal Text. This allows you to detail edit the text, but eliminates the ability to return to the text tool for editing purposes. For example, you would not be able to change the font.

Tip: To maintain a smart editable copy of the text, copy and paste the text and then turn Smart Edit off on the copy. Detail edit the copy to create the design.

4 Use the following instructions on "Moving line segments and "Adding new points."

Exercise 2

Recreate the design as it appears below. The font is Folio Extra Bold with a height of **12"** (30.48 cm) and **6"** (15.24). Import the Teardrop.gca file from the Sampler2 folder in the Library folder.



Moving line segments

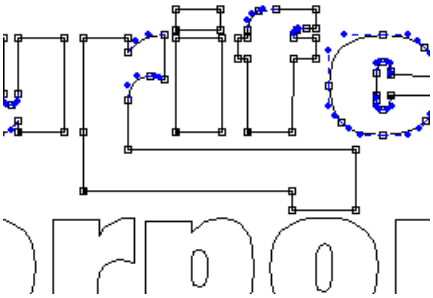
If you want to move a line between two points, while maintaining the distance between the points, use the Move tool with Retain on. This works well for recreating the "r" in this example and the "F" in Exercise 2.

1 Click the Move tool. The Move tool Property bar displays.

2 On the Property bar, turn on Retain Closed Shape and Allow Segment Grabbing.

3 Click and drag the segment to be moved.

4 Turn on the Add Lines button in the Property bar to create new line segments while moving lines. See the following example.



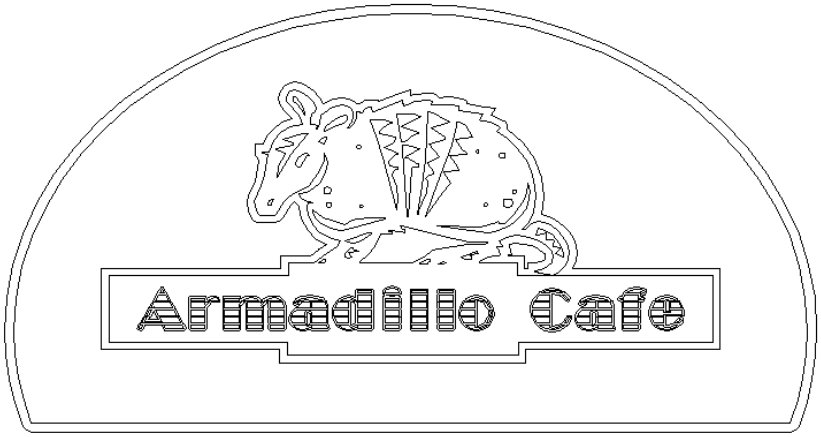
Adding new points

You may need to add points to your design.

1. Click the Add Point tool. The pointer changes to a cleaver and the Property bar displays.
2. On the Property bar, turn on Retain Closed Shapes.

3. Position the top tip of the cleaver next to the line where the point will be added. Click and drag through the line. A new point appears where the tool crossed the line.

Lesson 10:
Adding special effects



In this lesson you will create the above sign using the following new techniques:

- Contouring shapes
- Dividing shapes
- Adding Stripes to shapes

For more information on using these features refer to OMEGA Help.

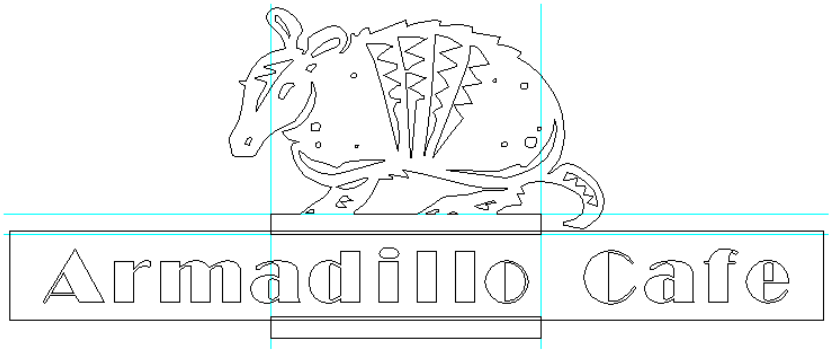
Creating boxes and text

Quick instructions

Open the file. Create a rectangle that measures **3.5"** (8.89 cm) x **32"** (81.28 cm). Position the box so it overlaps slightly with the platform of the armadillo, and center the box below the armadillo.

Add the text, **Armadillo Café**. The font is Broadway and the height is **2"** (5.08 cm). Character space the text so it fits appropriately inside the rectangle. Center the text in the rectangle.

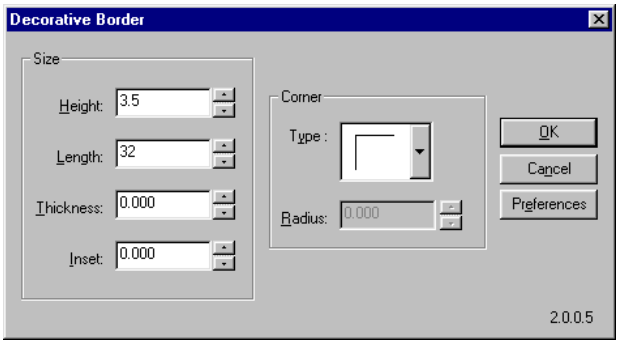
Create a second rectangle the approximate proportions of the platform (guidelines can help in this process). Position the new rectangle below the text so it overlaps the first rectangle. See the following illustration.



Detailed instructions

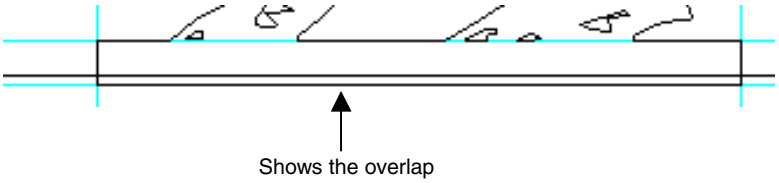
To retrieve the file, click Window > ArmCafe.plt. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Click the File type drop down list, and change the file type to PLT or All.
3. Click the Look in drop down list, and click C:.
4. Double-click Jobs to open the folder.
5. Choose ArmCafe.plt, and click Open.
6. Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.
7. Click the Border tool.
8. Click and drag a rectangle anywhere in the design area. *Do not be concerned with the dimensions or the placement.* The Decorative Border dialog box displays.

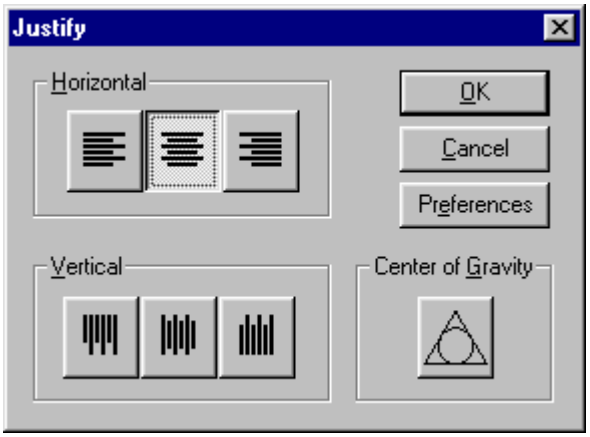


9. Enter a height of **3.5"** (8.89 cm) and a length of **32"** (81.28 cm).
10. Click OK.
11. Click Zoom to All.
12. Click and drag the rectangle so it slightly overlaps with the platform of the armadillo. *Do not be concerned with the alignment of the rectangle to the armadillo.*

13 Click Select > All (F2 or Ctrl+A).



14 Click Arrange > Justify. The Justify dialog box opens.



15 Click the Horizontal Center justify button and click OK.

16 Click Text on the Work Surface from the Toolbox toolbar.

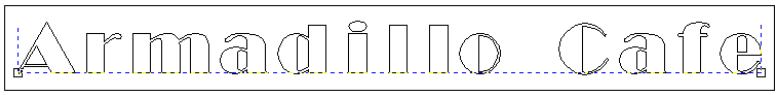
17 Choose Broadway from the Font Select list.

18 Double-click the Font Height text box, and enter a value of **2"** (5.08 cm).

19 Position the I-beam in the middle of the rectangle and click.

20 Type Armadillo Cafe.

21 Click Character Spacing, and space the text to fit the rectangle.

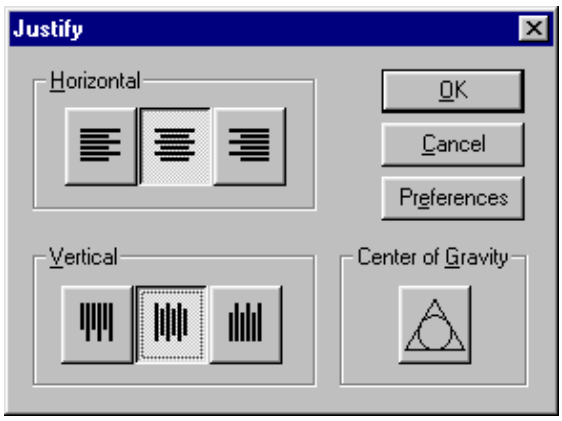


22 Turn off Character Spacing.

23 Select the text with the Selection tool.

24 Hold down the Shift key and select the rectangle. (Remember that what is selected last remains stationary.)

25 Click Arrange > Justify. The Justify dialog box opens.

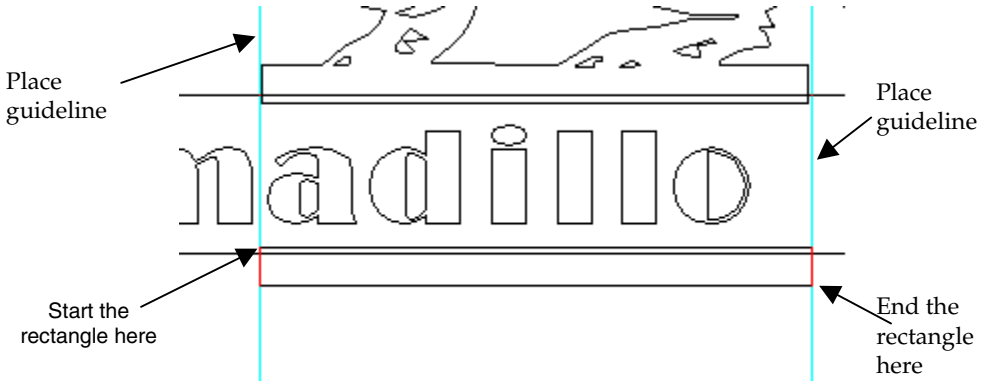


26 Click the Horizontal Center and Vertical Middle justify buttons (shortcut 7) and click OK.

27 Click and drag vertical guidelines into the design. Place them at the edge of the armadillo's base as depicted in the illustration below.

28 Click the Box tool from the Construction toolbar.

29 Position the crosshair on the left-hand vertical guideline, slightly inside the large rectangle. Click and drag a box diagonally to the opposite guideline. Release the mouse button when the new rectangle equals the approximate width of the platform.



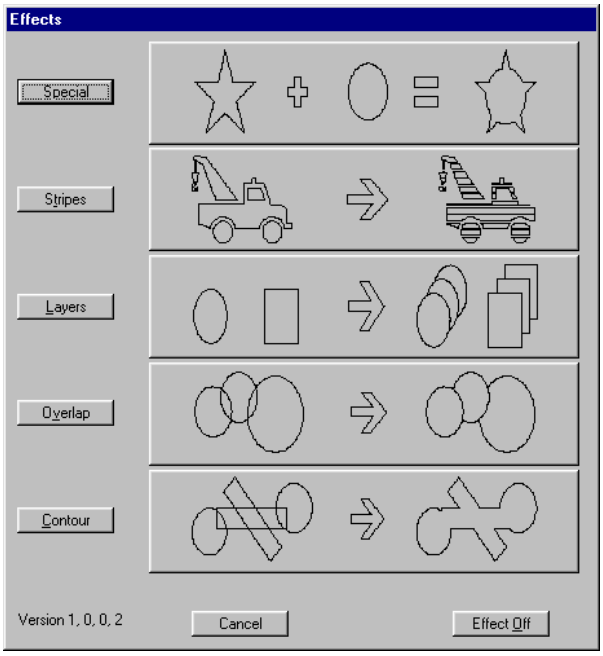
Contouring shapes

Contour: Combines multiple shapes to become one continuous shape.

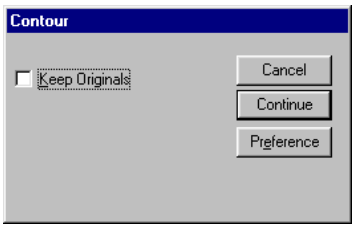
1 Click Select > All (F2 or Ctrl+A).

2 Deselect the text by holding down the Shift key and clicking the text.

3 Click Tools > Effects. The Effect dialog box opens.



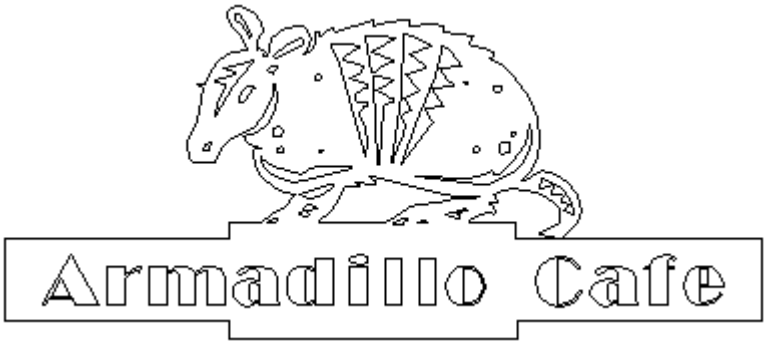
4 Click Contour button. The Contour dialog box opens.



5 Click Continue.

6 Cancel the selection by clicking in the work area.

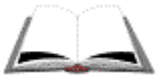
7 Click Layout > Remove Guidelines.



Creating, sizing and positioning a oval

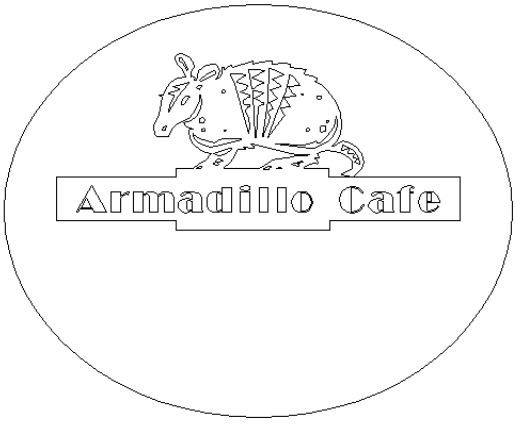
Quick instructions

Click and drag an oval around the design. Visually size it, and center justify the design.



Detailed instructions

1. Click the lower right triangle of the displayed construction tool to access the Construction fly-out toolbar.
2. Click the Circle tool.
3. Position the crosshair on the baseline of the text between the "i" and the "l" in Armadillo.
4. Hold down the Shift key and click and drag an oval around the design. The Shift key sizes the oval from the center at the start point.
5. Release the mouse button to set the oval.
6. Click Zoom to All.

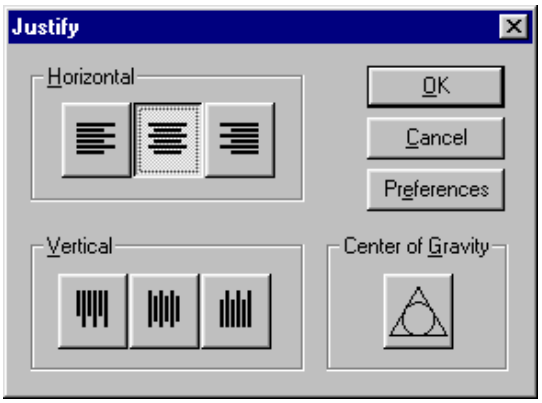


7. Click the Selection tool to select the oval.

8 Size the oval visually until it resembles the previous illustration. Position the pointer over the appropriate sizing handle, until the pointer turns into a double-sided arrow, then click and drag. Release the mouse to set the size.

9 Click Select > All (F2 or Ctrl+A).

10 Click Arrange > Justify. The Justify dialog box opens.



11 Click the Horizontal Center justify button (shortcut 2).

12 Click OK.

13 Cancel the selection by clicking on the work surface away from the design.

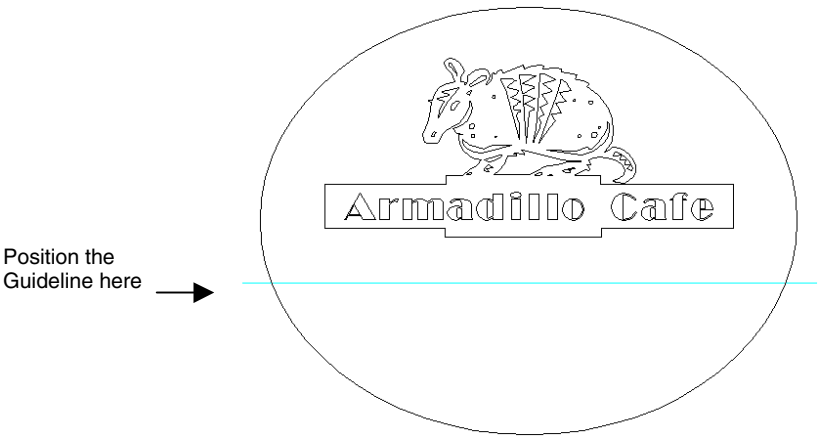
Dividing a shape

Slice and Dice: Divides a single shape into two shapes.

1 Click and drag a guideline from the horizontal ruler.

2 Release the mouse button when the guideline is positioned as shown in the following illustration.

3 Click Layout and turn on Snap to Guidelines if it is not currently active.

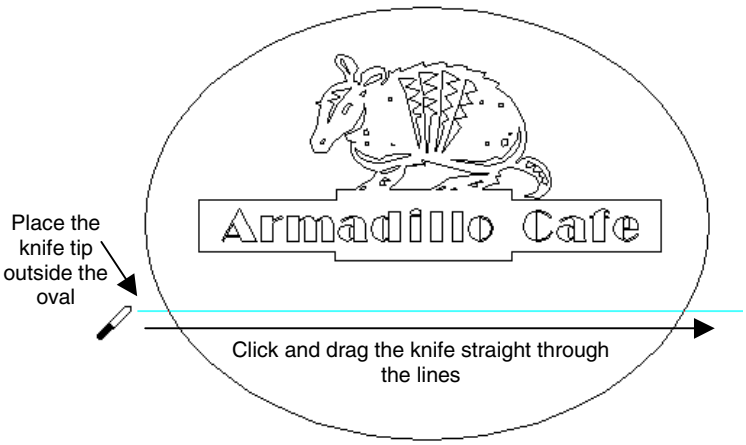


4 Select the oval with the Selection tool.

5 If it is not already open, open and dock the Detail Edit toolbar. Click the lower right triangle of the current Detail Edit tool to open the toolbar and then drag it into a convenient position.

6 Click Slice and Dice. The pointer changes to a knife and the Property bar displays. Turn off Slice and Dice Copy.

7 Position the white tip of the knife on the guideline, outside the oval. Click and drag straight through the oval.



8 Release the mouse button when a line has intersected both sides of the oval.

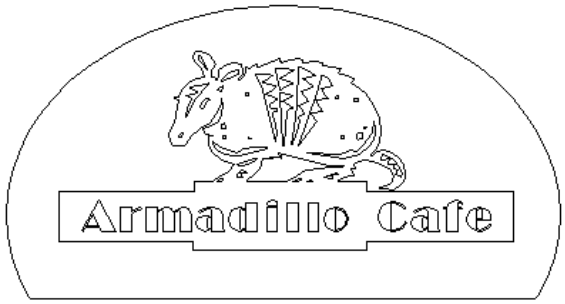
9 Click the Selection tool.

10 Cancel the selection by clicking on the work surface away from the design.

11 Using the Selection tool, click the bottom portion of the oval to select it. Only the bottom portion is selected.

12 Click the Delete key to remove the shape.

13 Click Layout > Remove Guidelines and View > Redraw.



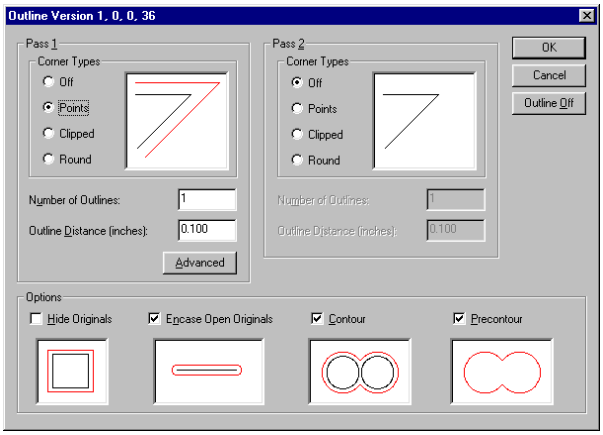
Applying an outline

Quick instructions

Select the text and apply an outline with an Outline Distance of **0.1"** (2.54 mm). Select the contoured shape of the armadillo and apply an outline with an Outline Distance of **0.4"** (10.16 mm). Select the outside shape and apply an outline with an Outline Distance of **0.5"** (12.7mm).

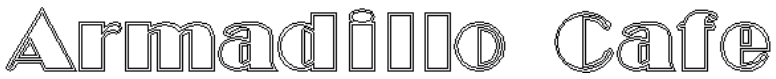
Detailed instructions

1. Select the text with the Selection tool.
2. Click Tools > Outline. The Outline dialog box opens.

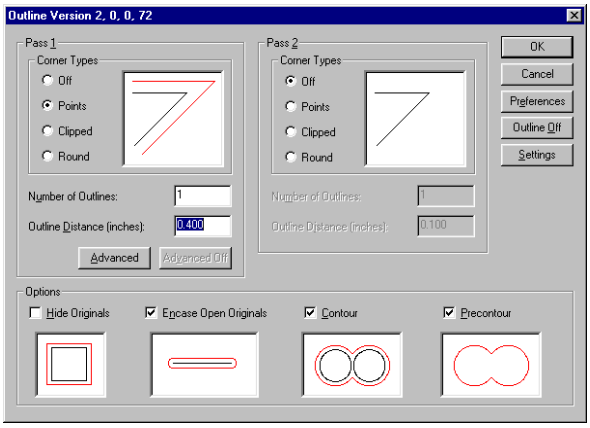


3. Turn on Points in Pass 1 Corner Type.
4. Enter **0.1"** (2.54 mm) in the Outline Distance text box.
5. Click OK.

Note: If you do not see the outline, smart edit (double-click the text and make sure Hide Originals is off.



6. Cancel the selection by clicking away from the design on the work surface.
7. Holding down the Ctrl key, select the contoured outside shape of the armadillo. The inside of the armadillo will not be selected.
8. Click Tools > Outline. The Outline dialog box opens.



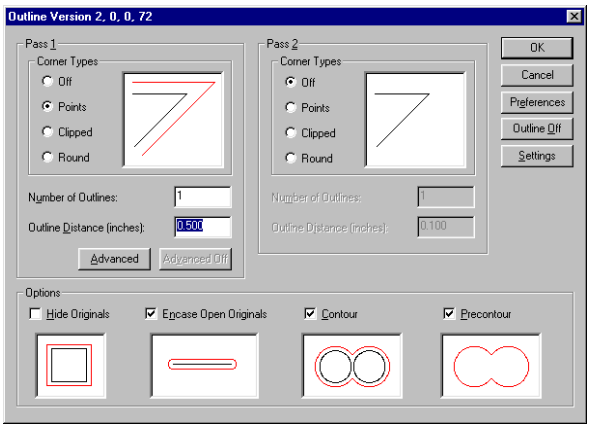
9 Turn on Points.

10 Enter **0.4"** (10.16 mm) in the Outline Distance text box.

11 Click OK.

12 Select the outside border with the Selection tool.

13 Click Tools > Outline. The Outline dialog box opens.



14 Turn on Points in Pass 1 Corner Type.

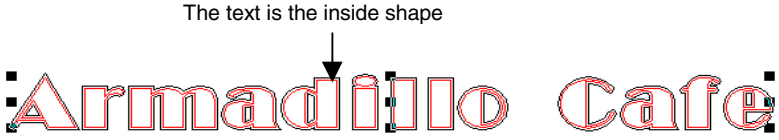
15 Enter **0.5"** (12.7mm) in the Outline Distance text box.

16 Click OK.

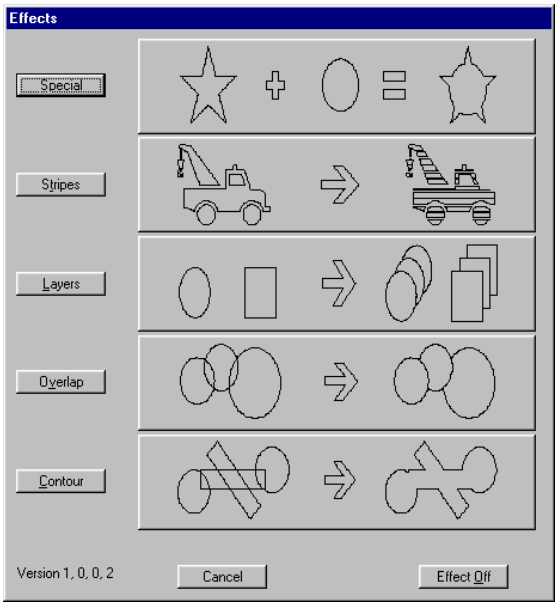
Adding stripes

1 Use the Zoom In tool to magnify the text.

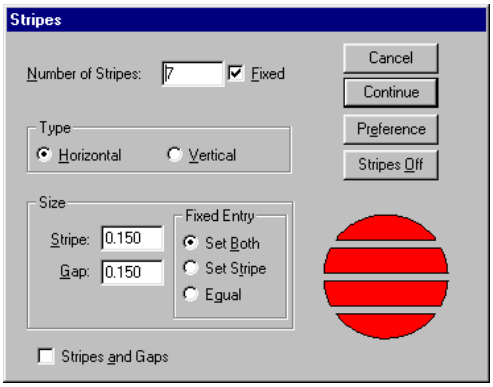
2 Select the text with the Selection tool. *Be careful not to select the outline.*



3 Click Tools > Effects. The Effects dialog box opens.



4 Click the Stripes button to open the Stripes dialog box.



5 Turn on Fixed.

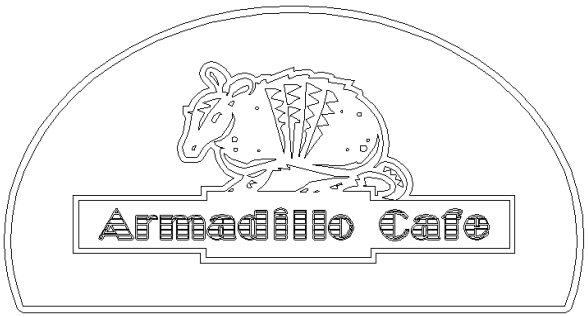
6 Enter **7** in the Number of Stripes text box.

7 Choose Horizontal in the Type box.

8 Enter **0.15"** (3.81 mm) in the Stripe Size text box.

9 Enter **0.15"** (3.81 mm) in the Gap Size text box.

10 Click Continue.



11 Click Zoom to All.

Note: To edit or turn off Stripes, smart edit the shape to reopen the Stripes dialog box.

This completes Lesson 10. Please do the exercises that follow to review what you have just learned.

Chapter 4: Practice examples

The following examples range in their degree of difficulty. For help with the examples, review the previous lessons. Step-by-step instructions for completing the examples are posted on Gerber's web site at *www.gspinc.com*. They are located in Customer Corner\Literature\Educational Literature.

Practice Example 1

Recreate the example using the font Bodoni Bold. The clipart is located in C:\GSP\Library\Sampler2 file. It is the Cook.gca file.

To reverse the clipart, select it and click Shape > Flip X.

Practice Example 2

Recreate the example using the font Franklin Gothic.

Chapter 5:
Advanced Detail Edit

In this lesson you will use the following detail edit tools to clean up the results of Posterized Image to create the clean text shown above:

- Smooth Shape
- Sharpen Corners
- Round Corners
- Delete
- Line Tool
- Add Point
- Join Open Shapes

Lesson 11:
Posterizing an image

In this lesson you will open the file Cox Image.plt and use Posterize Image to create a vector shape using the following new technique:

- Posterize Image

For more information on using this feature refer to OMEGA Help.

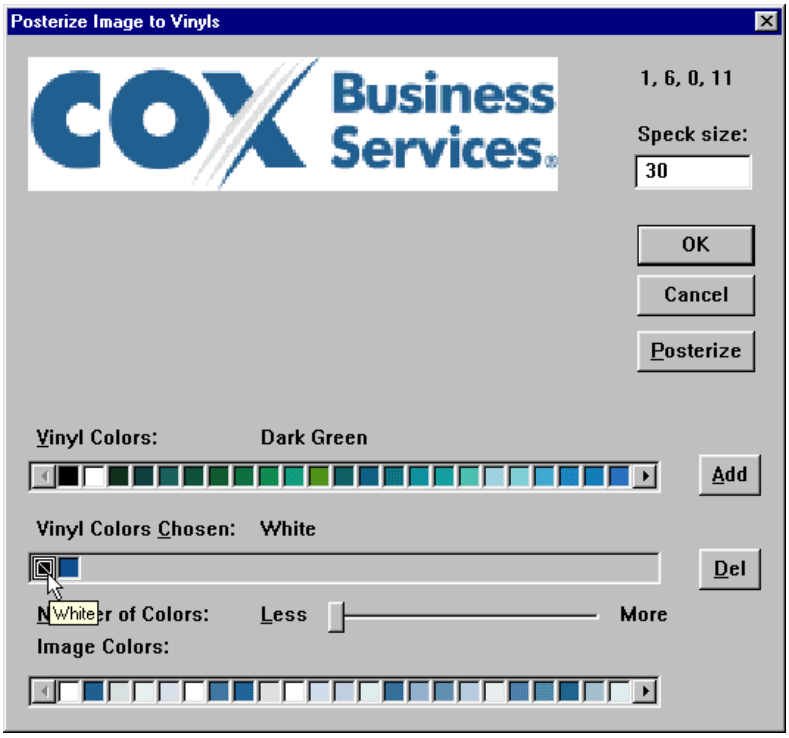
Posterizing an image

Quick instructions

Open the file Cox Image.plt and use Posterize Image to create vector shapes. In Posterize Image set the Number of Colors to Less and click twice on the White swatch to ignore it. Delete the image. Temporarily ungroup the words Business Services and delete them leaving only the word COX.

Detailed instructions

1. Open the C:\Jobs\Learning\Cox Image.plt file. You can also download this file from the Gerber web site: www.gspinc.com\Customer Corner\Literature\Educational Literature\Download OMEGA 2.X Learning Guide Images. After downloading, double click LGImages.exe and copy the images to C:\Jobs\Learning folder.
2. Click Select > All.
3. Click Tools > Posterize Image to open the Posterize Image to Vinyls dialog box.
4. At the prompt to create a Template click Yes.
5. Move the Number of Colors slider from More to Less.
6. Click twice on the White swatch (put a hash mark through it) to ignore the color.



7 Click OK to posterize the shape and return to Composer.

8 Click Select > Images > All.

9 Press Delete on your keyboard to remove the image.

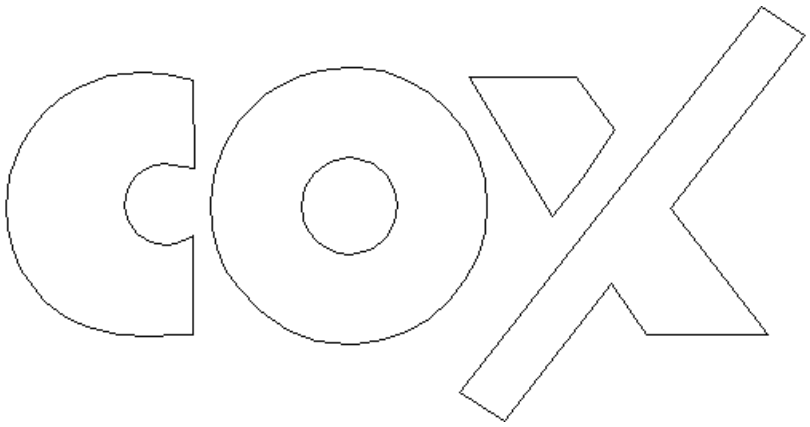
10 Holding down Ctrl (temporary ungroup), marquee select the text Business Services.

11 Press Delete on your keyboard. Only the word COX remains.

12 Click Zoom to All.

This completes Lesson 11. Please continue with the next lesson.

Lesson 12:
Smoothing and sharpening shapes



In this lesson you will clean up the letters C, O, and X until they look like the above illustration using the following new techniques:

- Detail Edit Smooth Path tool
- Detail Edit Sharpen Corners tool
- Detail Edit Round Corners tool

For more information on using these features refer to OMEGA Help.

Smoothing a shape

Quick instructions

Select all of the shapes and smooth them using the Detail Edit Smooth Path tool with a Smoothing percentage of **15**. Continue smoothing the outside curve of the letter C until the results are acceptable. You may have to use the Smooth Path tool 10 or more times to achieve acceptable results on the letter C.

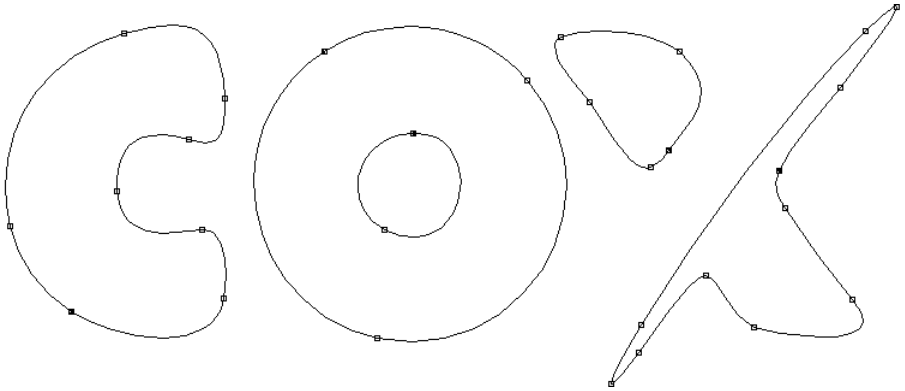
Detailed instructions

1. Click Select > All (shortcut key Ctrl+A or F2).
2. Open the Detail Edit toolbar and dock it on the screen.
3. Click the Detail Edit Options button to open the Detail tab of the Options dialog box.
4. Change the Point size to **0.05**. (If you prefer another point size, use that instead.)
5. Click Preference and Save All Pages.

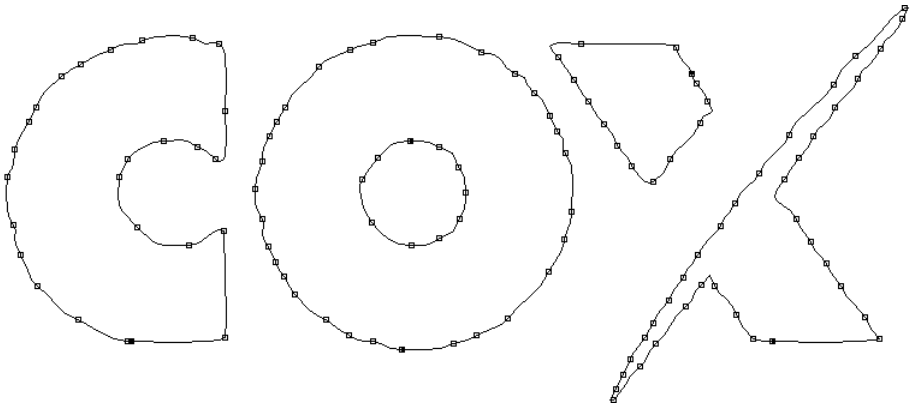
6 Click OK.

7 Click the Detail Edit Smooth Path tool.

8 Click and drag around the entire shape with the Property Box value at **100**. You'll see that too many points were removed and the text is too smooth, as shown in the following illustration.



9 Enter **15** in the Property Box and wait. The text should now look like the following illustration.



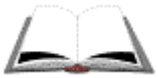
10 Continue to use the Smooth Shape tool by clicking and dragging around sections of the outside curve of the **C** until you have created a smoother, cleaner curve. You may have to use the Smooth tool ten or more times to achieve acceptable results.

Sharpening corners

Note: The results of the Sharpen Corners tool are dependent on the area of the shape that you surround. If the result of Sharpen Corners is unacceptable, click Edit > Undo and try surrounding more or less of the shape.

Quick instructions

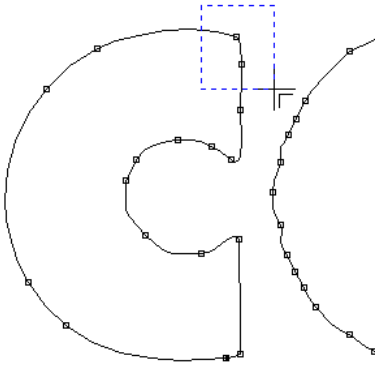
Use the Detail Edit Sharpen Corners tool to create clean corners on the letter C and the letter X.



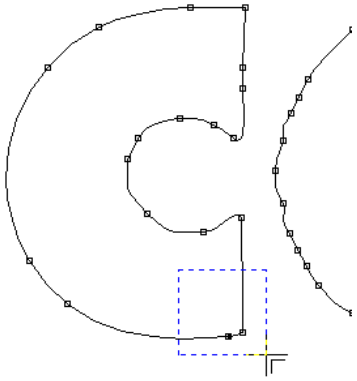
Detailed instructions

1 Click on the Detail Edit Sharpen Corners tool.

2 Click and drag around the upper corner of the C.

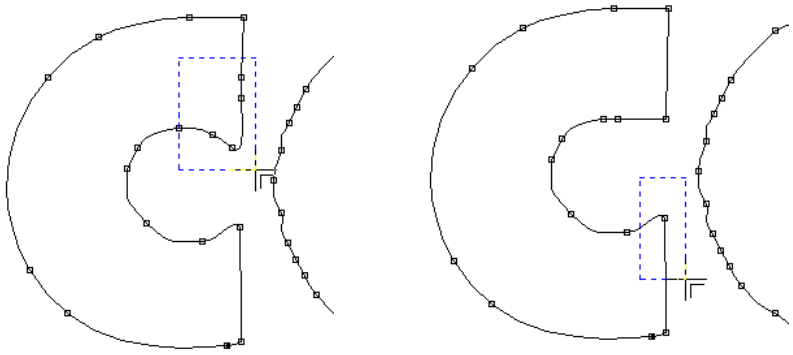


3 Click and drag around the bottom corner of the C.

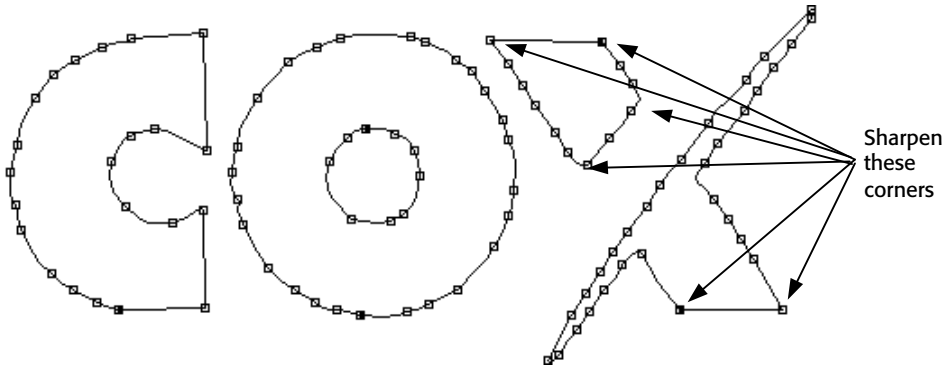


4 Turn on Modify Curves vs. Adding Lines on the Property bar.

5 Click and drag around the inner corners of the C – one at a time – as shown in the following examples.



6 Continue sharpening each corner on the wide portions of the X.



Rounding corners

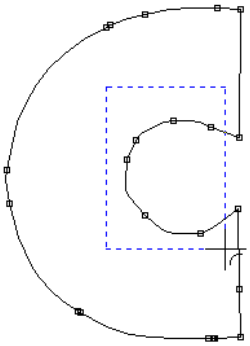
Quick instructions

Use the Detail Edit Round Corner tool to clean up the inside and outside curves of the letter C and the O. Correct the inside curves before correcting the outside curves.

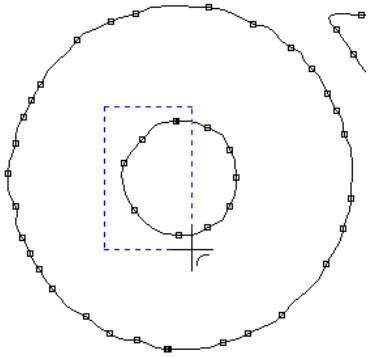
Detailed instructions

1 Click the Detail Edit Round Corners tool.

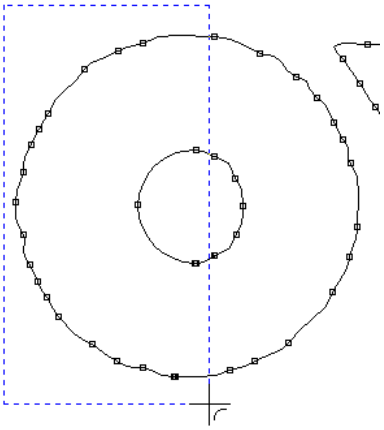
2 Click and drag (marquee select) around the inner curve of the C as shown in the following illustration.



3 Click and drag around the left half of the center of the O.



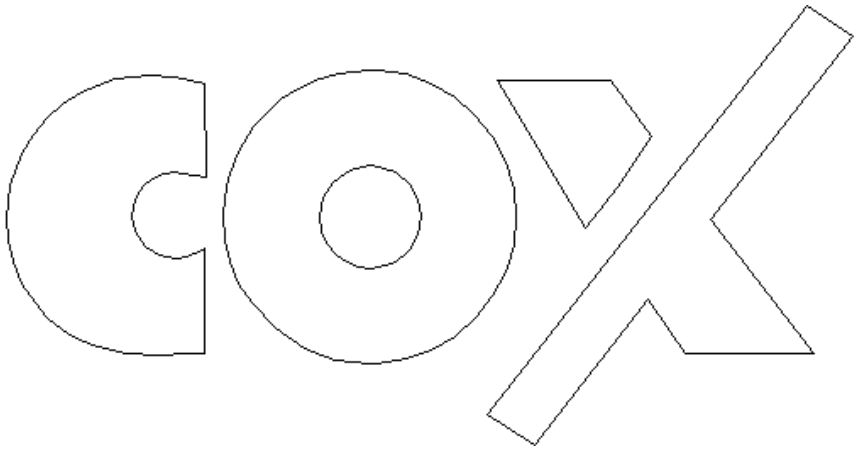
4 Click and drag around the left half of the outside of the O.



5 Repeat steps 3 and 4 to round the right side of the O.

This completes Lesson 12. Please continue with the next lesson.

Lesson 13:
Deleting and adding points



In this lesson you will modify the letter X to look like the above illustration using the following new techniques:

- Detail Edit Delete tool
- Detail Edit Add Point tool
- Set Angled Guidelines
- Line tool
- Detail Edit Join Open Shapes

For more information on using these features refer to OMEGA Help.

Deleting points

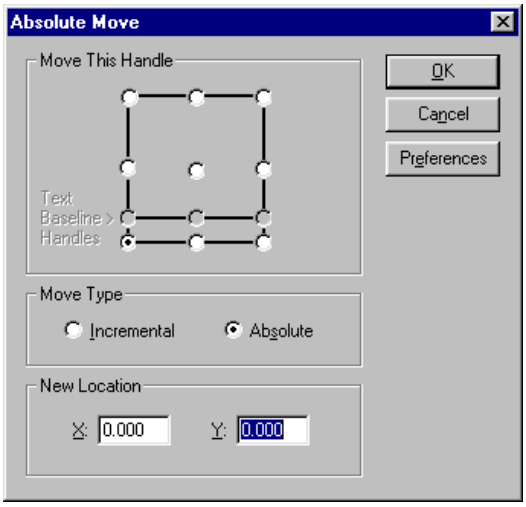
Quick instructions

Select all shapes and position them so that the lower left corner is at the 0,0 location on the work surface. Delete the extra points on the wide (left to right) swash of the X. Add two angled guidelines along the thinner swash of the X. Create a new clean (right to left) swash of the X using the guidelines for positioning. Delete the jagged swash of the X and join the newly created section of the X to create a closed shape.

Detailed instructions

1. Click Select > All (F2 or Ctrl+A).
2. Click Shape > Absolute Move to open the Absolute Move dialog box. Click the bottom left handle in the Move This Handle box. In Move Type, turn on Absolute. In New Location, enter **0** in X and **0** in Y and click OK to return to

Composer. Click Zoom to All. The bottom left corner of the word COX is at the 0,0 point.

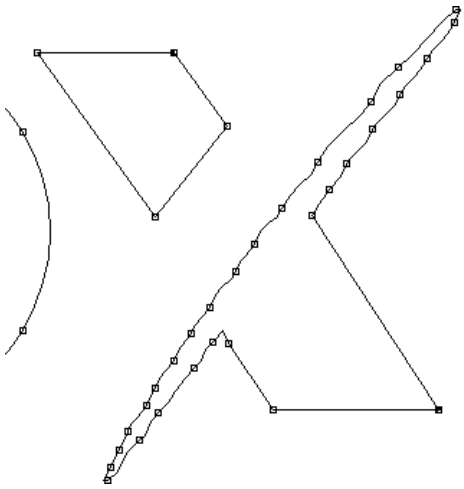


3 Click the Detail Edit Delete tool.

4 Set the Property bar as shown. Turn on Retain Closed Shapes and Replace Deleted with Line.

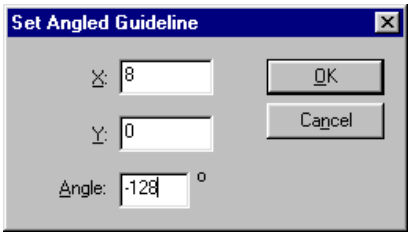
5 Using the Delete tool, click the extra points on the wide portions of the X to remove them. The result should resemble the following illustration.

NOTE: It may be quicker and easier to marquee select points you wish to delete.

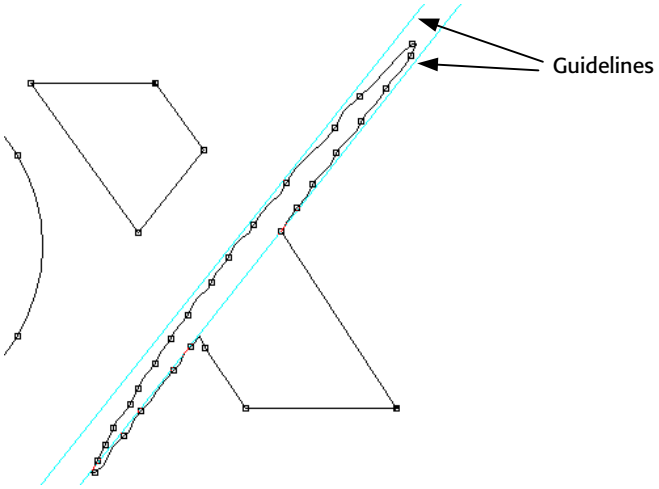


6 Create two angled guidelines as shown in the following illustration. Click Layout > Angled Guidelines to open the Set Angled Guideline dialog box.

7 Enter **8** in X and **0** in Y, and enter **–128** in the angle box and click OK.



8 Repeat the Set Angled Guideline procedure entering **8.5** in X and **0** in Y and **–128** in the angle box. Click OK to create another, parallel guideline. If necessary, drag the guidelines into correct position as shown in the following illustration.



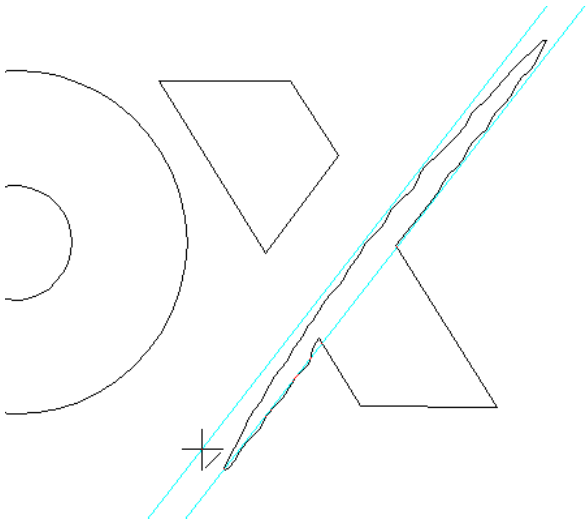
Note: The Set Angled Guideline values are approximate. You may have to experiment with different values to achieve acceptable results.

Tip: You can quickly create angled guidelines by clicking the icon in the corner of the rulers and dragging a guideline onto the work surface. When you release the mouse, you set the guideline location and it can be pivoted around this location to the proper angle.

9 Click the Line tool in the Toolbox toolbar.

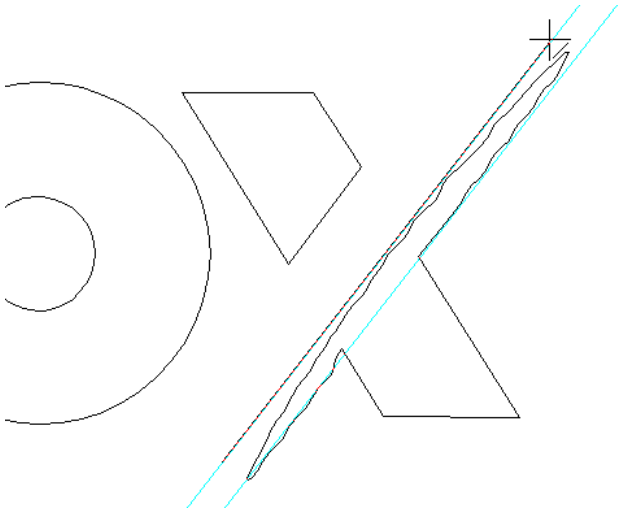
10 Click Layout and make sure that the Snap to Guideline option is turned on. (There is a check next to it.)

11 Click at the bottom of the X on the upper-most guideline to create a point.



12 Click and drag the Line tool so it snaps to the guideline.

13 Click at the top of the X to create another point and anchor the line. Make sure the line and points are snapping to the guideline.



14 Right click and select End Shape Open.

15 With the Selection pointer, select the line you just created and then right click with your mouse and select Copy.

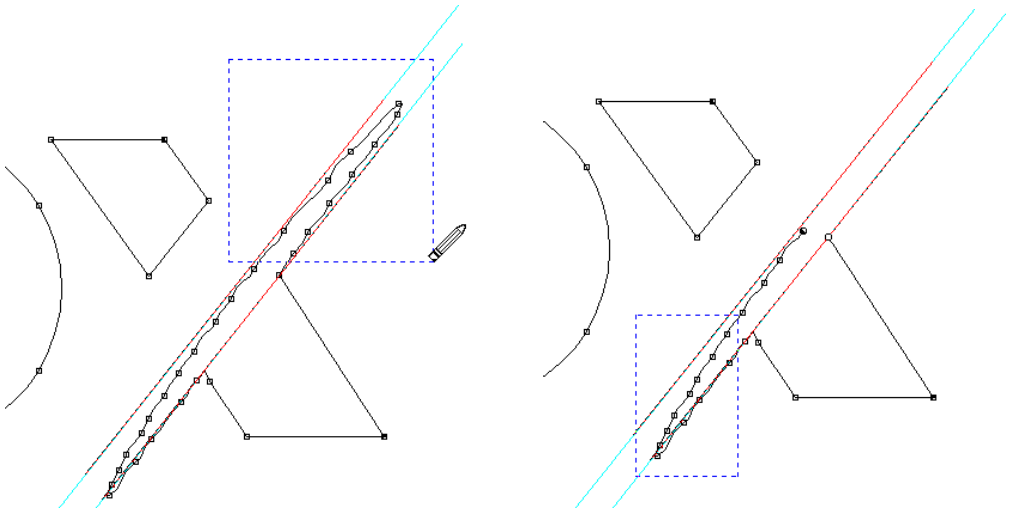
16 Place the Selection pointer on the second guideline, right click with your mouse and select Paste Here.

> **Tip:** You could also use Edit > Duplicate to copy and paste the line in one step and then move the line into place.

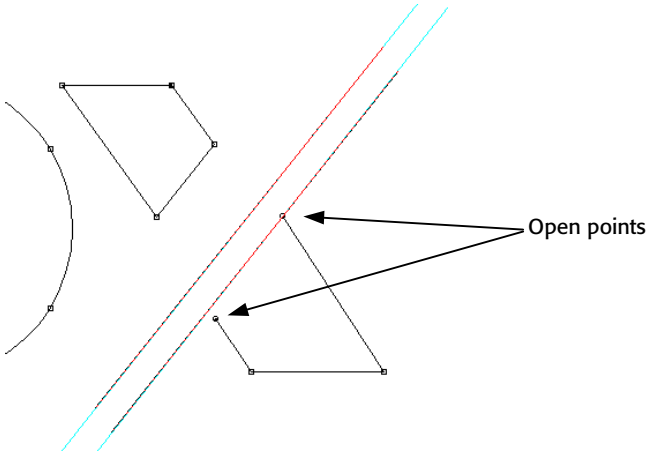
17 Select only the word COX, and not the lines you just created.

18 Select the Delete tool. Turn on Allow Single Segment Delete and turn off Retain Closed Shape.

19 Marquee select the lines/points as shown in the illustration to delete the top and bottom portions of the X.



20 Delete the remaining line segments one by one to achieve the open points shown in the following illustration.



Adding Points

Quick instructions

Select all shapes. Using the Add Point tool (with Retain Closed Shape turned on in the Property bar), add points as shown in the following illustrations. Using the Delete tool (with Single Segment Delete turned on), delete the segment to create open points as shown in the following illustration.

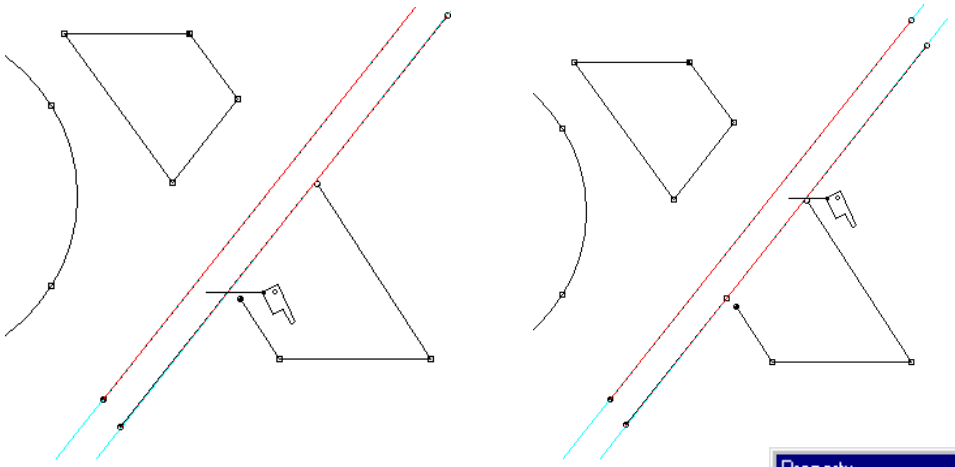
Detailed instructions

1 Click Select > All (F2 or Ctrl+A).

2 Click the Detail Edit Add Point tool.

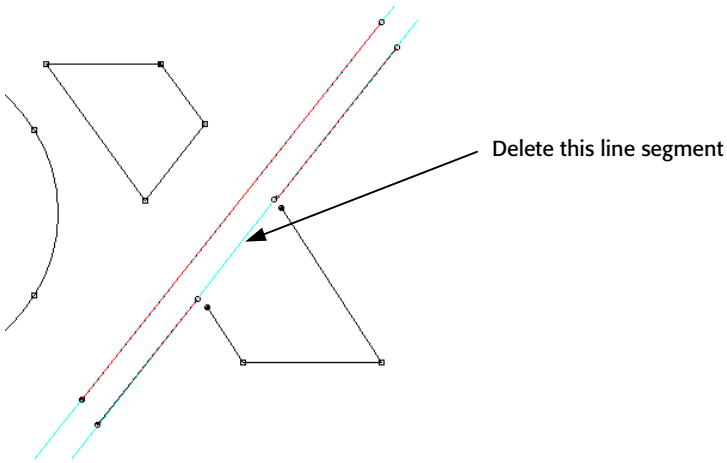
3 On the Property bar, turn on Retain Closed Shape.

4 Create points on the line you pasted near the open points you just created.



5 Pick up the Delete tool. Turn on Allow Single Segment Delete on the Property bar.

6 Click on the segment between the two points you just created to delete it and leave open points.



Joining Open Shapes

Quick instructions

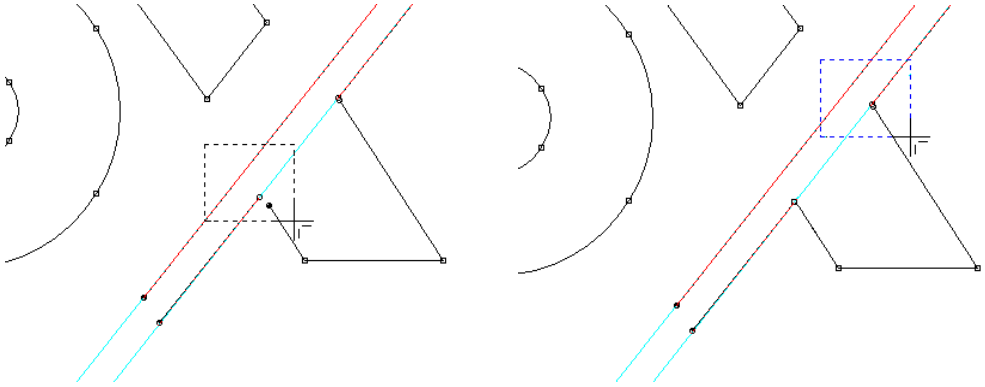
Join the open points of the new lines to create the closed shape of the X. Use the Move tool with Allow Segment Grabbing turned on to modify the width of the X.

Detailed instructions

1 Click the Detail Edit Join Open Shapes tool.

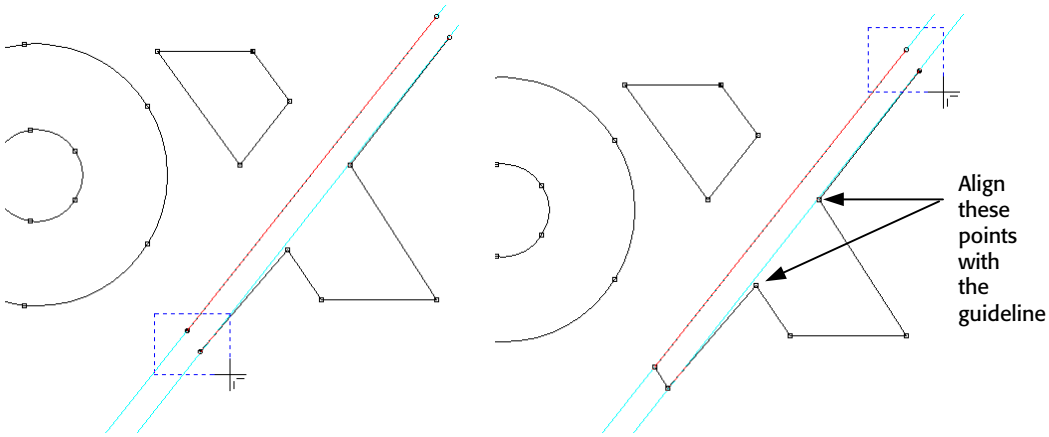
2 Turn on Join at Mid Point in the Property bar.

3 One at a time, click and drag around both open points of the line and the bottom of the **X**. See the following illustration.



4 Turn on Join with Line on the Property bar.

5 Click and drag around each end of the lines you created earlier.

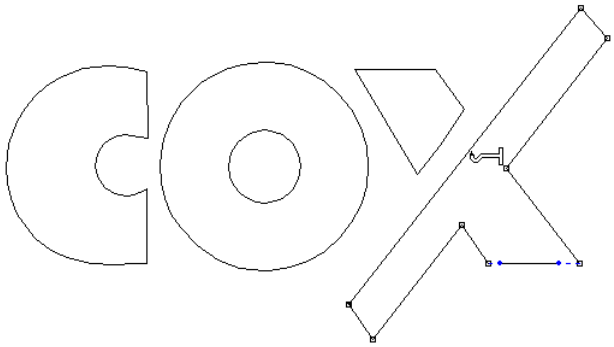


6 Click the Move tool and drag the newly created points so that they align with the guideline.

7 Click Layout > Remove Guidelines.

8 On the Move tool Property bar, turn on Retain Closed Shape, Modify Adjacent Segments, and Allow Segment Grabbing.

9 Click and drag the upper-most line you created on the X and make the X thicker as shown in the following illustration.

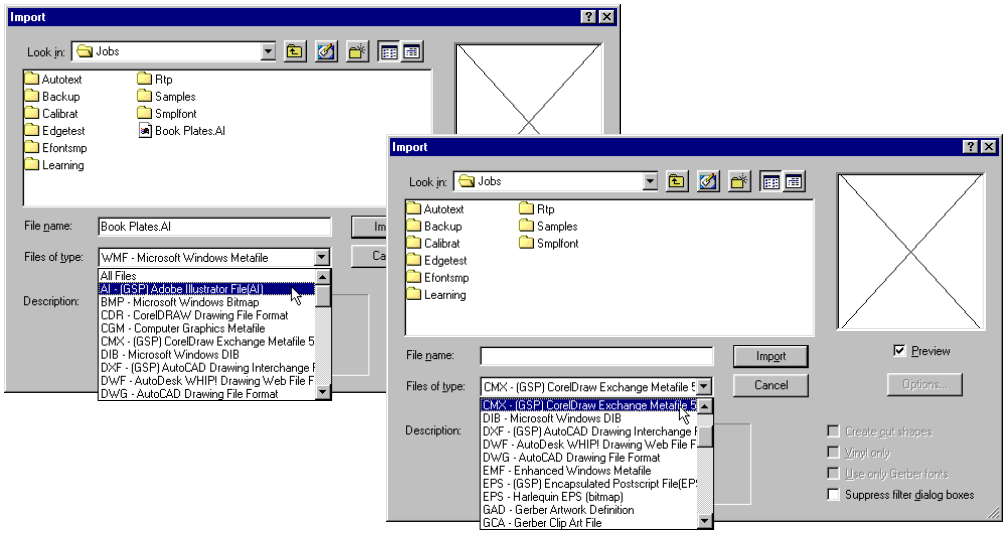


10 Click View > Filled (shortcut key F8).

11 If needed, assign the blue of the C and O to the bottom of the X.

This completes Lesson 13. Please continue with the next chapter.

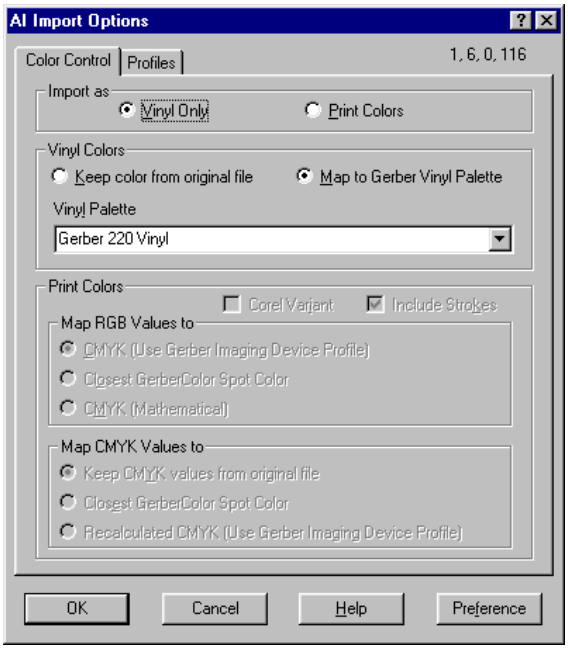
Chapter 6:
Importing files for vinyl cutting



This chapter covers all the tools needed to successfully import Adobe Illustrator® – AI files (or CorelDRAW® – CMX files) into OMEGA for vinyl cutting. The techniques you will learn:

- Importing files for vinyl cutting

Lesson 14:
Importing files for vinyl cutting



In this lesson you will learn how to successfully import an AI (or CMX) file for vinyl cutting using the following new techniques

- Importing files for vinyl cutting

For more information on using these features refer to OMEGA Help.

Importing AI (or CMX) files for vinyl cutting

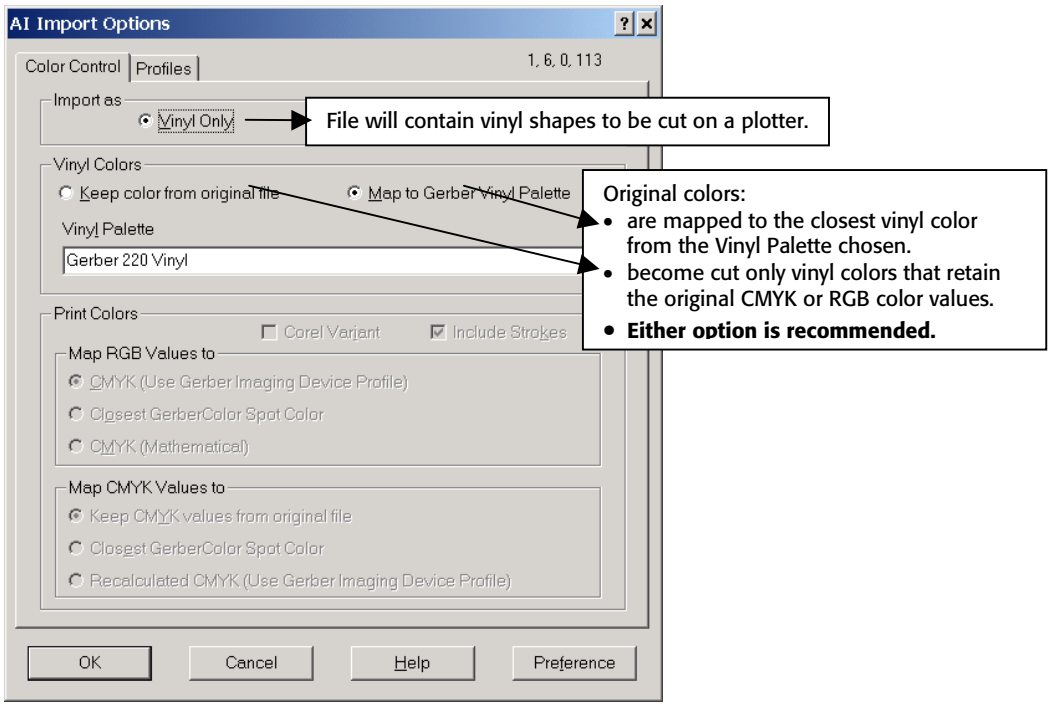
In this procedure you will import an AI file using the AI–GSP Adobe Illustrator File (AI) filter. You can follow the same procedure using a CMX 5/6 file using the CMX–(GSP) CorelDRAW Exchange Metafile 5/6 filter. The Import Options dialog boxes have the settings.

1. From Composer, click File > Import to open the Import dialog box.
2. In File Type, choose AI–GSP Adobe Illustrator File (AI).

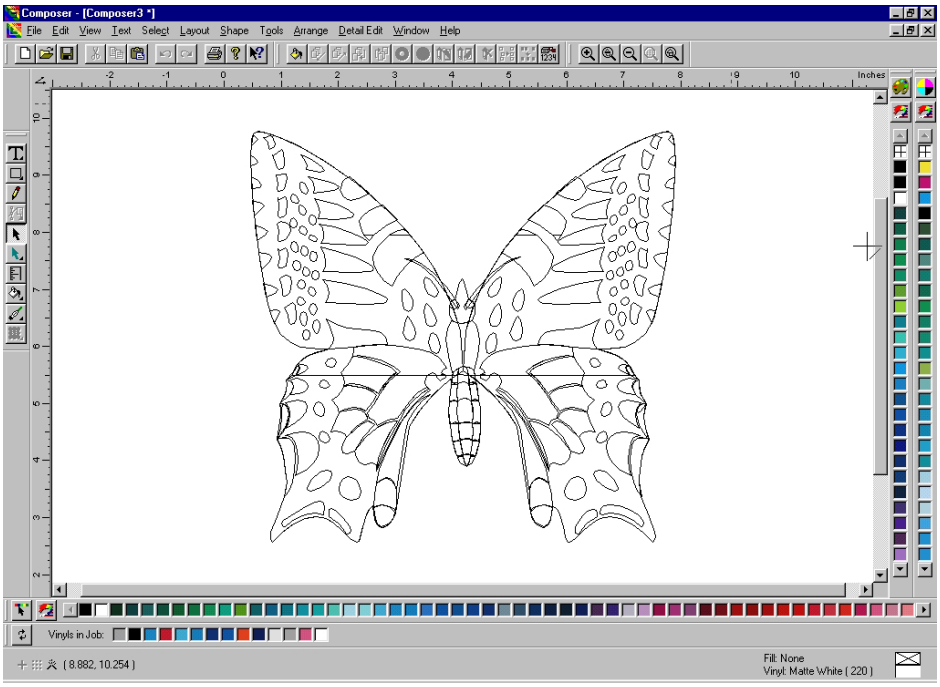
Note: When saving a file in Adobe Illustrator, save it as AI 7.0 or 8.0. (AI 9 and higher will not work.) These file types convert most easily. When saving a CorelDRAW file, save it as a CMX 5.0/6.0 for best results. Also, it is best to convert all objects and text to curves when importing.

3. Navigate to C:\Jobs\Learning\Butfly.ai.
4. Click Import and the AI Import Options dialog box displays.

5 On the Color Control tab, turn on Vinyl Only. Use the following illustration as a guide when setting Vinyl Colors options.



6 Click OK to import the file. Note that all the lines view as black (cut-only shapes) in Wireframe mode. Also, the Vinyls in Job palette contains many vinyl colors.



This completes Lesson 14. Please continue with the next lesson.

Chapter 7:
Using Advanced Design Techniques

This lesson covers all the tools needed to create the above signs. The techniques you will learn in this lesson are as follows:

- Import/Export
- Advanced Outline
- Advanced Fit Text to Path
- Warp
- AutoNumber and Text Merge (AutoText)

Lesson 15:
Importing and editing clip art

In this lesson you will create the above sign using the following new techniques:

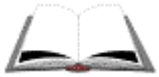
- Importing clip art as vinyl shapes
- Thinning shapes
- Advanced Outline

For more information on using these features refer to OMEGA Help.

Importing and editing clip art

Quick instructions

Import the clip art file C:\Jobs\Learning\palm tree.wmf as Vinyl Only. Assign 220 White vinyl to the clip art. Thin the clip art using an Error Tolerance of **0.005"** (.127 mm). Group the clip art and size it to **3.819"** (9.70 cm) high and **8.241"** (20.93 cm) long.



Detailed instructions

1. Click File > Import to open the Import dialog box. In Files of Type, choose WMF – Microsoft Windows Metafile.
2. Locate the following file: C:\Jobs\Learning\palm tree.wmf. You can also download this file from the Gerber web site: www.gspinc.com\Customer Corner\ Literature\Educational Literature\ Download OMEGA 2.X Learning Guide Images. After downloading, double click LGImages.exe and copy the images to C:\Jobs\Learning folder.

3. Turn on the Vinyl Only box. Note that the Create Cut Shapes box is checked.
4. Click Import. The graphic is placed on the Composer work surface.

5 Make sure the clip art is selected. Click the White (220) vinyl swatch.

6 Press Ctrl+1 to remove any fills.

Note: When importing clip art into vinyl only software (OMEGA CL or OMEGA CS), the clip art may contain fills. To remove these fills, you can check the Vinyl Only box in the Open/Import dialog box before bringing the item into Composer or use the above technique (Ctrl+1).

7 Deselect all by clicking on an empty area of the work surface.

8 Hold down the Shift key and use the Selection (black) pointer to select the outside box and outer border (the waves to the right of this border will be selected too).

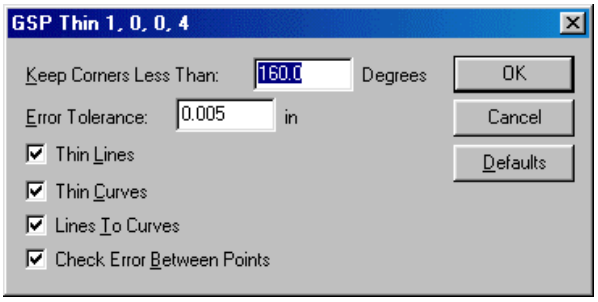
9 Press Delete. The box, outer border, and outside waves are removed.

10 Marquee select all of the shapes using the Selection pointer.

11 Click the Detail Selection tool. Note the large number of points in the clip art.

> **Tip:** If the Detail Edit point size is too large, go to Tools > Options > Detail tab and use the slider to adjust the Point Size.

12 Click Tools > Thin to open the GSP Thin dialog box.



13 Set the Error Tolerance to **0.005**" (0.127 mm) and click OK. Note that there are fewer points now.

14 Click Select > All.

15 Click Arrange > Group.

16 Size the job to **3.819"** (9.70 cm) high x **8.241"** (20.93 cm) long by using a corner handle or click Shape > Absolute Size to open the Absolute Size dialog box. Turn on Uniform Size Type and enter a Height of **3.819"** (9.70 cm). Click OK.

Using Advanced Outline

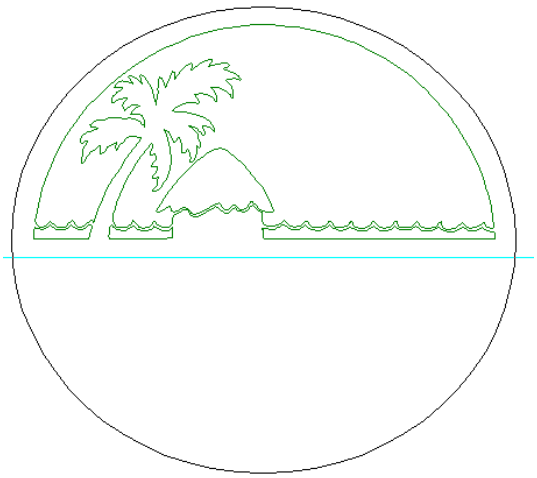
Quick instructions

Create an oval that measures **8.316"** (21.12 cm) high and **9"** (22.86 cm) long. Locate and justify the clip art to the top half of the oval. Use the Slice and Dice

tool to separate the oval at the horizontal diameter and delete the bottom half. Create an Outline selecting Points for Corner Type and using Advanced Outline to create Logarithmic outlines with the following settings: **3** for Number of Outlines, and **1"** (2.54 cm) for Maximum Outline Distance.

Detailed instructions

1. Use the Circle tool to create an oval around the clip art that measures **8.316"** (21.12 cm) high and **9"** (22.86 cm) long**.** (To quickly size the oval, click Shape > Absolute Size and enter **8.316"** (21.12 cm) in Height and **9"** (22.86 cm) in Length (choose Non-uniform).)
2. Move the clip art into the top half of the circle.
3. Select all shapes (Ctrl+A) and click Arrange > Justify to open the Justify dialog box.
4. Choose Center Horizontal to justify the clip art horizontally within the circle (the clip art must be grouped before justifying).
5. Add a horizontal guideline approximately ½" below the clip art.

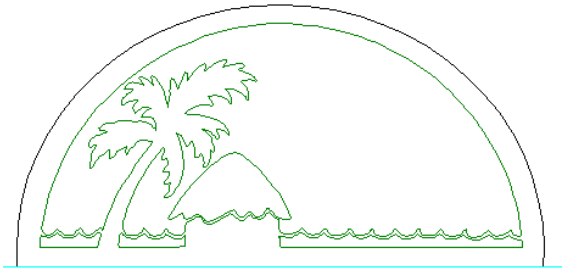


6. Select only the outer circle using the Selection pointer.
7. Click the Slice and Dice tool on the Detail Edit toolbar. Make sure that Slice/Dice Copy is turned off on the Property bar.

8. Drag the Slice and Dice tool across the circle along the guideline.

Note: If the Slice and Dice tool does not seem to snap to a guideline, go to Layout > Snap to Guidelines to activate this feature.

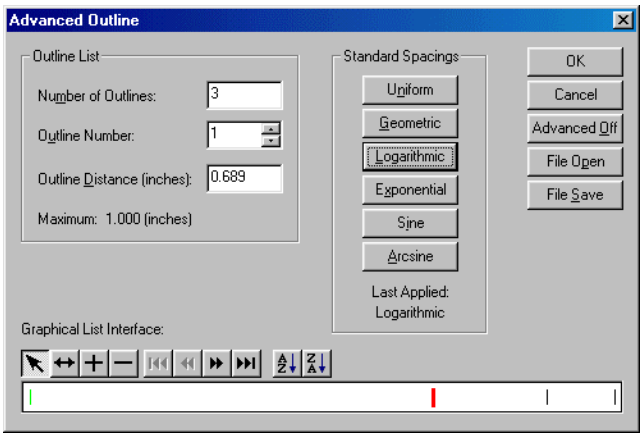
9. Select the bottom portion of the circle and delete it.



10 Select the outside border that we just created.

11 Click Tools > Outline to open the Outline dialog box.

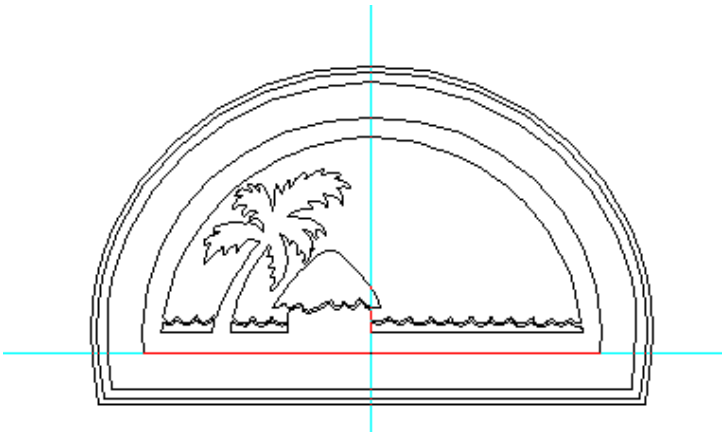
12 Select Points for Corner Type and click Advanced to open the Advanced Outline dialog box.



13 Click Logarithmic to open the Logarithmic Outline Spacing dialog box.

14 Enter 3 for the Number of Outlines and **1"** (2.54 cm) in Maximum Outline Distance. Click Replace Current Spacing to return to the Outline dialog box.

15 Click OK twice to create the outlines and return to the work surface.



This completes Lesson 15. Please continue with the next lesson.

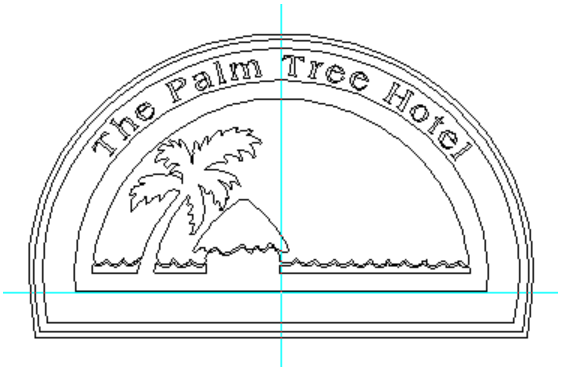
Lesson 16:
Advanced text techniques

In this lesson you will create the above sign using the following new techniques:

- Advanced Fit Text To Path
- Warping text
- Merging text
- AutoNumber

For more information on using these features refer to OMEGA Help.

Advanced Fit Text to Path

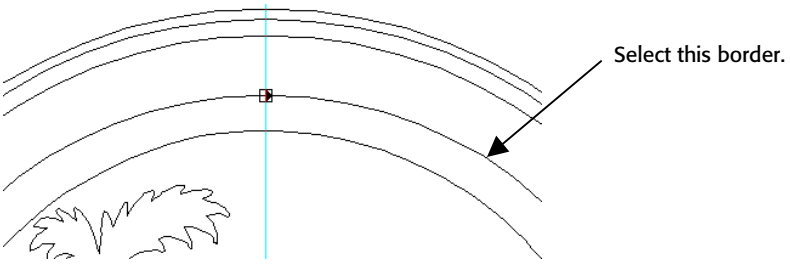


Quick instructions

You will add text to the sign as shown above. Create the text **The Palm Tree Hotel**. The height is **0.5"** (1.27 mm) and the font is Americana Bold. Use the Detail Edit tool, Set Start Point and Direction, to add a new start point at the top of the first border surrounding the clip art. Use Fit Text to Path to place and modify the text The Palm Tree Hotel within the curved borders. Center the text on the start point. Shift the baseline by **–23%**. Resize the text to **86%**. Expand the text spacing to **20%**.

Detailed instructions

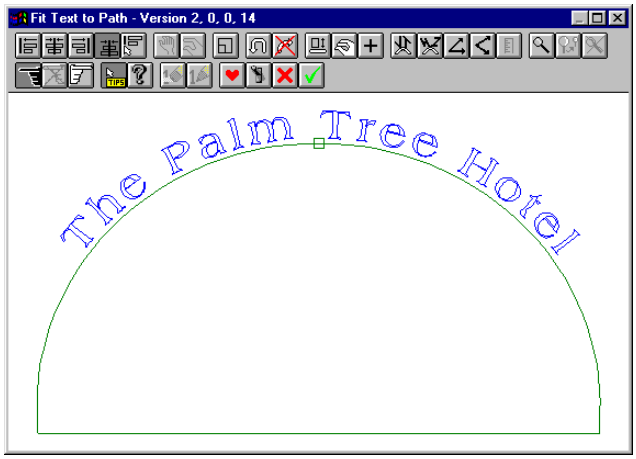
1. Click the TOWS tool and select the font Americana Bold. Enter **0.5"** (1.27 mm) in Height and type: **The Palm Tree Hotel**.
2. Select the first border surrounding the clip art using the Selection pointer.
3. Drag a vertical guideline to the center point of the border shape.
4. Click the Set Start Point and Direction tool on the Detail Edit toolbar.



5. Using the Set Start Point and Direction tool, click the first border at the intersection of the guideline to set a new start point. (For this procedure, it does not matter which direction the Set Start Point arrow faces.)
6. Make sure the first border surrounding the clip is still selected and then select the text, The Palm Tree Hotel.
7. Click Tools > Fit Text to Path to open the Fit Text to Path dialog box.
8. Click the Center on Start Point button.
9. Click the Baseline Shift button and move the text to **–23%.**

Note: Before shifting the baseline, it might be helpful to turn off Snap to Baseline.

10. Click the Text Size Tool and resize the text to **86%.**
11. Marquee select the text using the Selection Tool.
12. Click the Space Tool and space the text to **20%.**

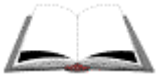


13. Click the green check mark to save the changes and return to Composer.

Warping text

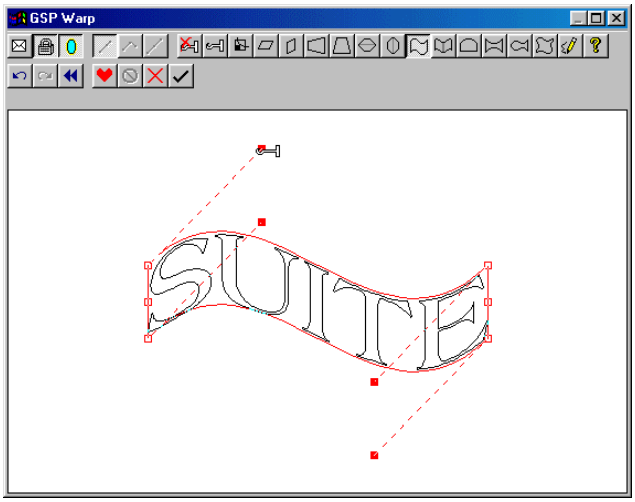
Quick directions

Create the text **SUITE** using Americana Bold at **0.5"** (1.27 mm). Use Warp and apply the Horizontal Flag shape. Stretch the text to approximately **3.145"** (7.98 cm) in length and move it into position.



Detailed directions

1. Click the TOWS tool and select font Americana Bold. Enter **0.5"** (1.27 mm) in Height and type: **SUITE**.
2. Select the text using the Selection pointer.
3. Click Tools > Warp to open the GSP Warp dialog box. (Click No when the Envelope Selection dialog box opens).
4. Select the Horizontal Flag warp type.
5. Using the Move Point tool, click and drag on one of the handles (solid red square) to warp the text into the Horizontal Flag shape.



6. Click the OK button (black check) to accept the changes and return to the Composer work surface.

7. Use the center side handle and stretch the text to approximately **3.145"** (7.98 cm).

> **Tip:** You can resize the text using Shape > Percentage Size. Turn on Non-uniform and enter **125%** in the Length box.

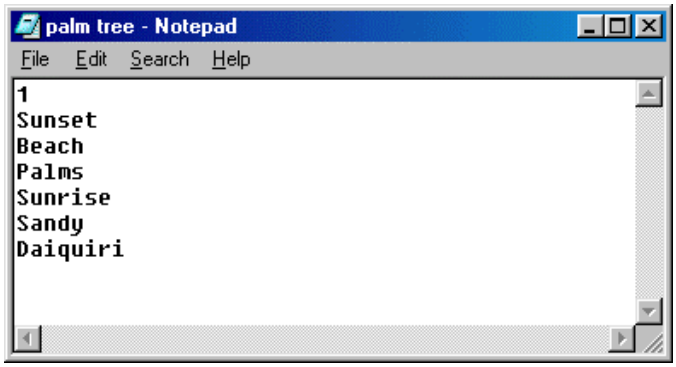
8. Move the text to the position shown in the following illustration.

Using Text Merge and AutoNumber

Quick Instructions

Create the text **THE** using the font, Americana Bold and a height of **0.4"** (1.01 mm). Create the Text Merge (AutoText) character **&1** using Americana Bold at **0.6"** (1.52 mm) in height. Create the AutoNumber character **#1** using Americana Bold at **0.5"** (1.27 mm) in height. Arrange the text as shown in the illustration.

Using Tools > Repeats/Merge, create the Text Merge file in Notepad as shown in the following illustration.

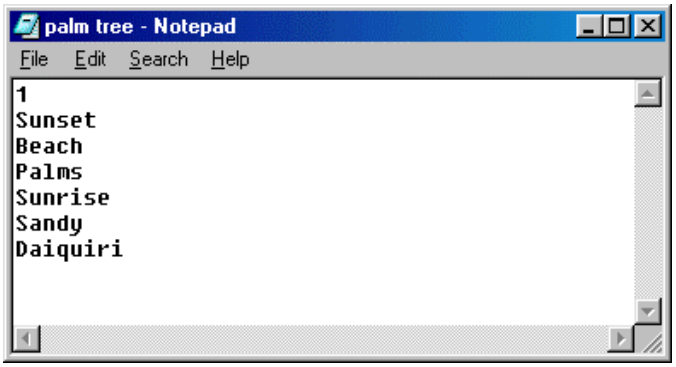


Repeat the text using **2** for X Repeats and **3** for Y Repeats. For AutoNumber, enter **100** for a Starting value, **1** for an Increment Value, and **None** for a Leading Character.

Detailed Instructions

1. Using the TOWS tool select the font Americana Bold and enter a Height of **0.4"** (1.01 mm). Type the text, **THE**.
2. Using the Americana Bold font at a **0.6"** (1.52 mm) height, type the text **&1** (an AutoText character).
3. Using the Americana Bold font at a **0.5"** (1.27 mm) height, type the text **#1** (an AutoNumber character).
4. Arrange the text as shown in the following illustration.

5. Click Select > Select All (Ctrl+A or F2).
6. Click Tools > Repeats/Merge to open the Repeats/Merge dialog box.
7. Click the Text Merge tab.
8. Click Create File.
9. Enter the text as shown in the illustration below (be sure to hit Enter after the last line).



Note: The first line in the text (.txt) file must be the number of lines per record. For more information about text merge, see the Help topic "Merging text and numbers."

10. Click File > Save and save the file as palm tree.txt in the C:\Jobs directory.
11. Close Notepad.

12 Click Select File and select the file you just created (palm tree.txt). Note that the number of records in the file is 6 (this is the number of repeats needed).

13 Click the Repeats Tab.

14 Enter **2** for X Repeats and **3** for Y Repeats.

15 Click the AutoNumber Tab.

16 Enter a Starting Value of **100** and an Increment Value of **1**.

17 Select None for Leading Character.

18 Click OK. The results are shown in the following illustration.

This completes Lesson 16. Please do the exercise that follows to review what you have just learned.

Chapter 8:
Advanced Text Topics

This lesson covers all the tools needed to create the above sign. The techniques you will learn in this lesson are as follows:

- Converting True Type Fonts
- Using Font Manager
- Filter by Category
- Closing Connected Fonts
- Using ASCII Codes to add special characters

Lesson 17:
Advanced Text Topics

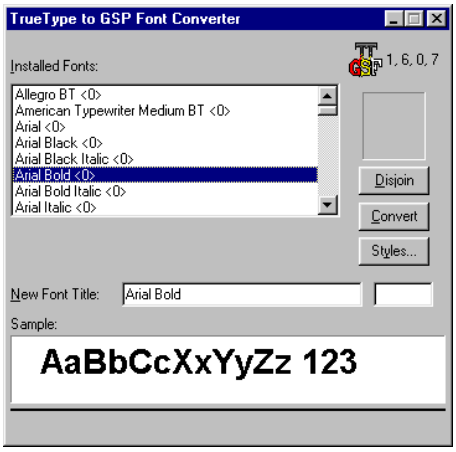
In this lesson you will create the above sign using the following new techniques.

- Converting True Type Fonts
- Using Font Manager
- Filter by Category
- Closing Connected Fonts
- Using ASCII Codes to add special characters

For more information on using these features refer to OMEGA Help.

Converting True Type fonts

1 Click Start > Programs > GSP OMEGA > TT Font Converter. The TrueType to GSP Font Converter dialog box opens.



2 Click the font to be converted from the Installed Fonts list (Arial Bold).

3 Click Convert button to open the Define Font Height Line dialog box. (You do not have to change the default settings.)

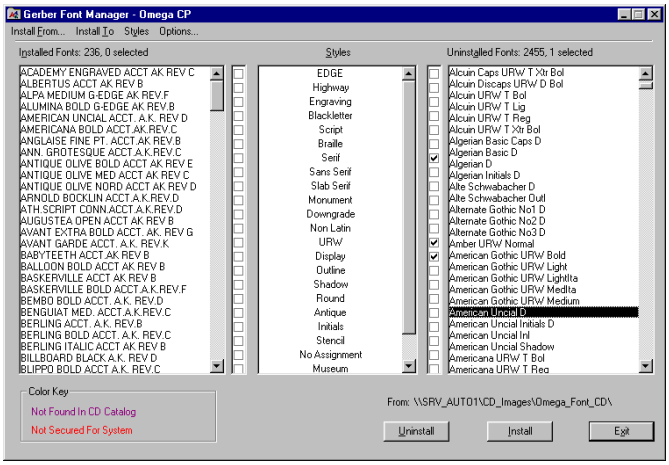
4 Click OK to return to the TrueType to GSP Font Converter dialog box and begin conversion. When the font is converted, the name is added to the Installed Fonts list.

5 Close the window.

Note: The TrueType Converter only references fonts that are saved in the C:/Windows/Fonts folder. If you wish to convert a font that is not in this folder, you must save it to this folder before opening the TrueType Font Converter.

Installing a URW font

1 Right click the GSPTray icon and select Font Manager. The Gerber Font Manager dialog box opens.



2 Select a font from the Uninstalled Fonts list (American Uncial D).

3 Click Install. The Font is added to the list of Installed Fonts.

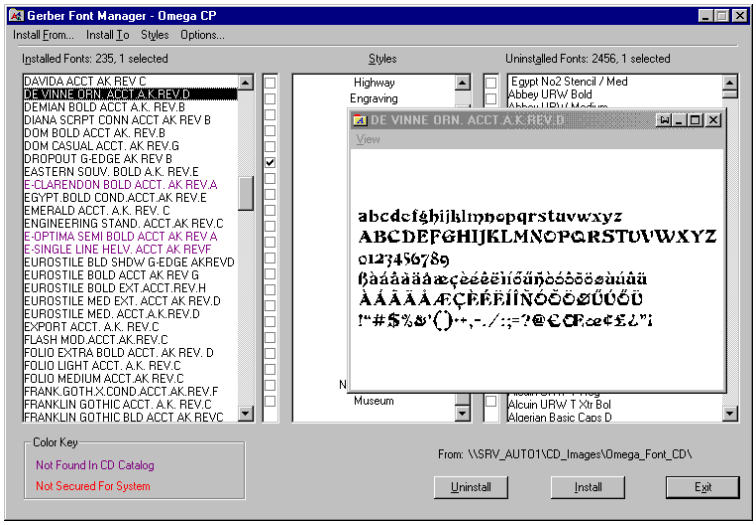
Note: To Uninstall a font, select a font from the Installed Fonts list, and click Uninstall. Uninstalled fonts that are not located on the Fonts CD are moved to the ni folder where they can later be reinstalled. The default folder location is C:\GSP\GSPFonts\ni (where C is the designation of your hard drive where OMEGA is located.)

Viewing Gerber fonts in Font Manager

In Font Manager you can view Gerber Fonts by right-clicking a font in the Installed or Uninstalled Fonts lists and choosing View Font. The font character set displays in a popup window. To view another font, right-click a different font from the on-screen list and choose View Font to refresh the popup window.

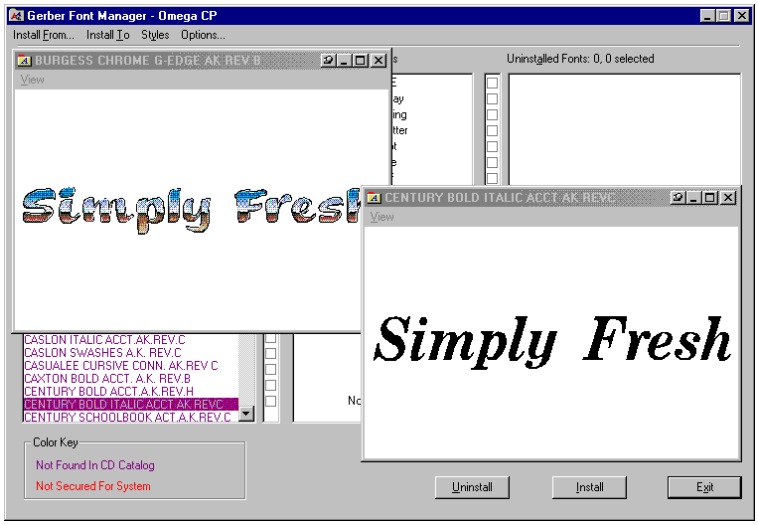
To save the popup window, click the Thumbtack button in the popup title bar. When choosing another font to view, it displays in a new popup window. You can Thumbtack multiple font windows for easy on-screen comparison of fonts.

> **Tip:** To automatically display the font in a popup window when the font name is chosen, turn on Auto View when font is selected in the Font Manager Viewer Options dialog box.



Viewing specific characters of a font

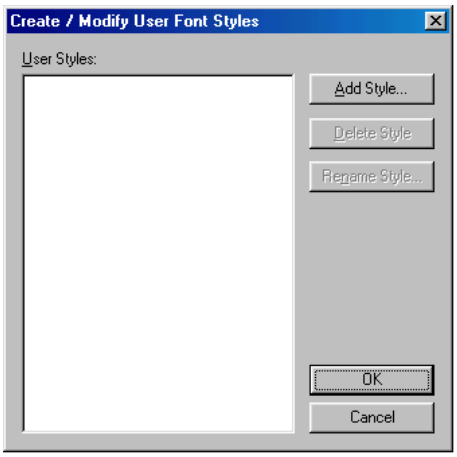
You can enter specific characters (such as a company name or headline) to display when viewing a Gerber font. Enter the characters to display in the Font Manager Viewer Options dialog box, then when choosing View Font, only those characters display.



1. In Font Manager click Options to open the Font Manager Viewer Options dialog box.
2. Enter the characters to display in the Viewed Text box.
3. Turn on Wireframe or Fill to select how the text displays in the popup window.
4. Turn on Auto View when the font is selected to automatically display the font set (or the entered characters) when choosing a font from the Installed or Uninstalled Fonts list.
5. Click OK to return to the Gerber Font Manager window.

Creating & assigning Font Styles

1. Click Styles > Create/Modify User Styles. The Create/Modify User Font Styles dialog box opens.



2. Click Add Style to open the End User Style Description dialog box. Enter the style name in the Description box (Fred's Fonts). Click OK to return to the Create/Modify User Font Styles dialog box.
3. Click OK to return to Font Manager.
4. Hold the Ctrl key and select the following 5 fonts:
   - American Uncial D
   - Arial Bold
   - Brush Script CT.
   - Times Bold
   - Zapf Chan. Bold
5. Click Styles > Assign User Styles to Installed. The Assign User Font Styles dialog box displays.
6. Click Fred's Fonts in the User Styles list. Click Assign Style(s).
7. Click Exit to close Font Manager.

Filtering fonts by style

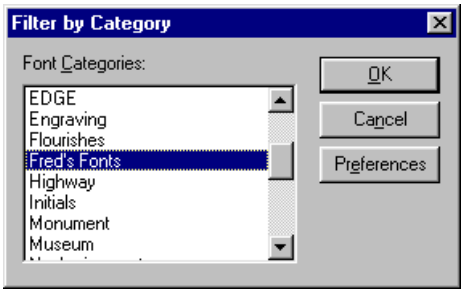
1 Click Start > Programs > GSP OMEGA > Composer to open Composer.

Note: You must restart Composer to have the changes made in Font Manager take effect.

2 Click the TOWS tool to open the TOWS toolbar.

3 Click the small down arrow at the end of the TOWS toolbar to open the secondary TOWS toolbar.

4 Click Select Font Categories icon to open the Filter by Category dialog box.



5 Select Fred's Fonts from the Font Categories list. Click OK.

Using connected fonts

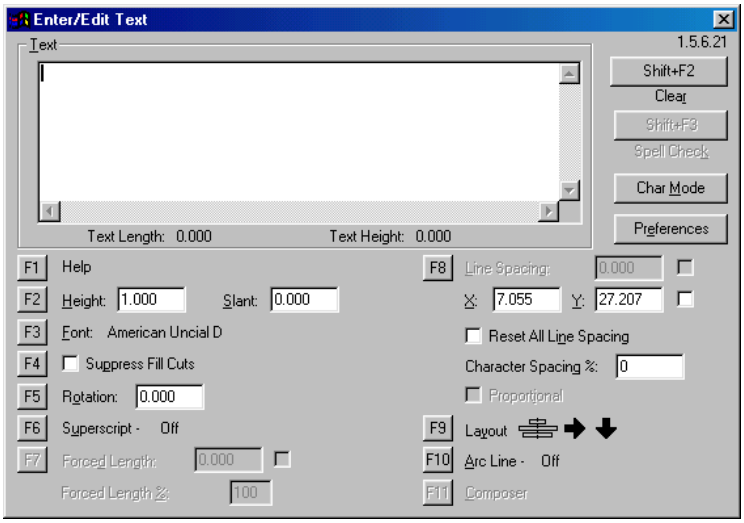
Quick instructions

Add the text, **Fruit Cakes**. The font is Arial Bold and the height is **4"** (101.6 mm). On the next line add the text, **by Fred**. The font is Arial Bold, the height is **3"** (76.2 mm) and the line spacing is **3.75"** (95.25 mm). Add the connected text **For all your friends at Christmas**. The font is Brush Script and the height is **1.25"** (31.75 mm). Connect the open characters.

Detailed instructions

1 Select the Enter/Edit Text tool on the Text toolbar.

2 Click on the work surface to open the Enter/Edit Text dialog box.

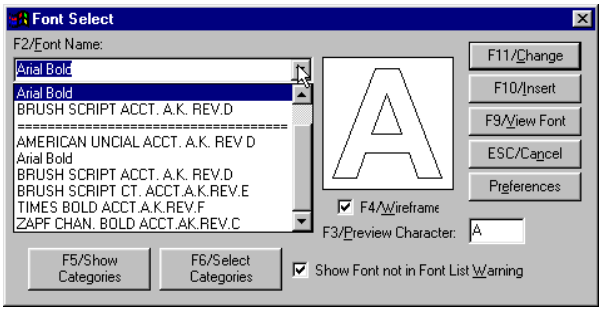


3 Click F3/Font to open the Font Select dialog box.

4 Click F6/Select Categories to open the Filter by Category dialog box.

5 Select Fred's Fonts. Click OK to return to the Font Select dialog box.

6 Select the font Arial Bold. Click F11/Change and return to the Enter/Edit Text dialog box.



7 Click F2. Enter **4"** (101.6 mm) in Height and press Enter on the keyboard.

8 Enter the text **Fruit Cakes** followed by a carriage return to go to a second line.

9 Click F2 and enter a new height of **3"** (76.2mm). The font remains Arial Bold.

10 Click F8 and enter **3.75"** (95.25 mm) in Line Spacing.

11 Enter the text **by Fred**.

12 Click F11/Composer to return to the work surface.

13 Using the Enter/Edit Text tool, click the work surface above the text, Fruit Cakes. The Enter/Edit Text dialog box reopens.

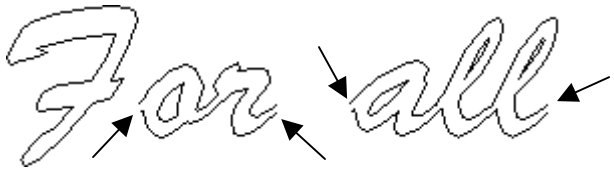
14 Click F3/Font to open the Font Select dialog box.

15 Select the font Brush Script CT and click F11/Change.

16 Enter a text height of **1.25"** (31.75 mm).

17 Enter the text **For all your friends at Christmas**.

18 Click F11/Composer. Note where the text is unconnected.



19 Smart edit (double-click) the text For all your friends at Christmas to re-enter the Enter/Edit Text dialog box.

20 Place parentheses around open segments in the text. For example: F (or).

21 Click F11/Composer to return to the work surface. Check that all the open characters are now closed.

Note: Some script fonts use the + and = sign instead of parentheses. Refer to FastFacts #3041: Closing the Open Ends of Script Fonts for more details.

Modifying the text

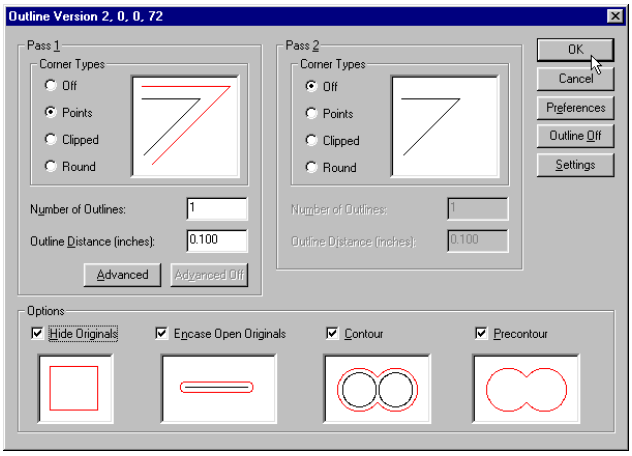
Quick instructions

Make the first line of text, Fruit Cakes, bolder by adding a **0.10** outline (hide originals). Size the text, by Fred to **23"** (584.2 mm) long.

Detailed instructions

1 Select the text, Fruit Cakes with the Selection tool.

2 Click Tools > Outline to open the Outline dialog box.



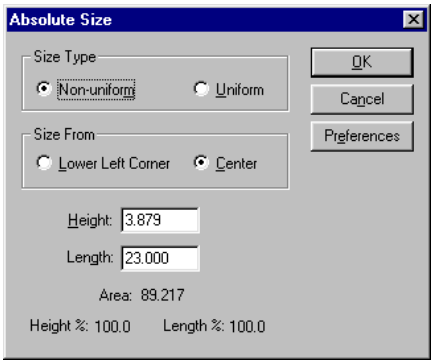
3 In Pass 1 turn on Points for the corner type. Enter **1** as the number of outlines. Enter **0.100** (2.54 mm) in Outline Distance.

4 Turn on Hide Originals.

5 Click OK.

6 Select the text, by Fred with the Selection tool.

7 Click Shape > Absolute Size to open the Absolute Size dialog box.



8 Turn on Non-Uniform and Center.

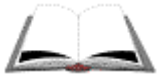
9 Enter **23"** (58.42 cm) in Length. Do not change the Height value.

10 Click OK.

Using alternate characters

Quick instructions

Add the text, **"It's the perfect gift!"** below the text, by Fred. The font is Times Bold and the height is **1.5"** (38.1 mm). Correct the closing quotation mark and justify all lines of text.



Detailed instructions

1 Using the Enter Edit Text tool, click the work surface below the text by Fred.

2 In the Enter Edit Text dialog box, click F2 and enter a Height of **1.5"** (38.1 mm).

3 Click F3 and select the font Times Bold.

4 Enter the text **"It's the perfect gift!"** and click F11/Composer to return to the work surface.

5 Note that the closing quotation mark (at the end of the text) is upside down.

6 Smart edit the text, "It's the perfect gift!" to reopen the Enter/Edit Text dialog box.

7 Delete the closing quotation mark and leave the cursor after the exclamation point.

8 Click F3/Font to open the Font Select dialog box.

9 Select the font, Times Bold and click F9/View Font.

10 Scroll down until you find the closing quotation character. Note the ASCII code number for that character (# 215).

11 Click on the character. The character fills the screen.

12 Click Edit > Copy.

13 Close the Font View window.

14 Click ESC/Cancel to return to the Enter/Edit Text dialog box.

15 With the cursor after the exclamation point, click Ctrl+V. An x is inserted to represent the closing quotation character.

16 Click F11/Composer to return to the work surface. Note that the closing quotation mark is now correct.

> **Tip:** You can enter the alternate character using the ASCII code number. Place the cursor where the character belongs and hold the Alt key while typing in the ASCII code on the number pad (Num Lock on). Add zeros at the beginning of the code if it is less than four digits. In the above scenario, the ASCII code to be entered is 0215.
>
> For a more extensive list of special characters see FastFacts #3017 or refer to the OMEGA Help topic "Entering special characters." To quickly find the topic, search by the keyword "character."

17 Click Select > All.

18 Click Arrange > Justify to open the Justify dialog box. Turn on Center Horizontal and click OK.

19 If necessary move the lines of text up or down using the arrow keys.

Chapter 8: Exercise

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete the exercise, review the previous lessons.

Exercise 1

Create a series of parking permits. They must meet the following specifications:

- Use of one of Fred's Fonts.
- Contain a piece of clip art from the Internet.
- Use both Text Merge and AutoNumber.
- Contain a Warped shape (or text).
- Include a quote (with correct closing quotation marks).

CONGRATULATIONS! You have completed the vinyl-only section of the Learning Guide. If you would like to learn about Color Management, continue with "Chapter 9: Practical Hands-on Color Management." To further test your vinyl design skills, try the Practice Example below.

Chapter 8: Practice Example

Create this vinyl-only sign using the following tools:

- TOWS toolbar
- Circle/Ellipse tool
- Absolute Size
- Special Effects – Combine and Special
- Detail Editing to edit shapes and text
- Outline
- Repeats/Merge
- Fit Text to Path

Create initials **RBC** using the font Bembo Bold at a height of **3.5"** (8.89 cm). The initials have an outline of **0.100".** Create the **&** using the font Caslon Swashes at a height of **4"** (10.16 cm). You will use Special Effects and Detail Edit to achieve the combined appearance.

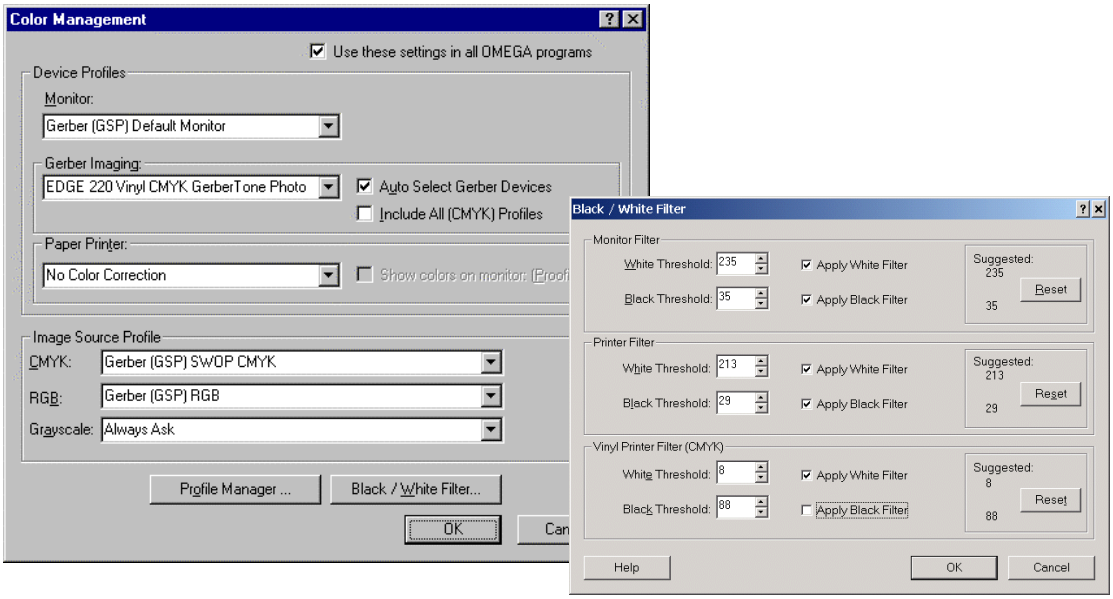
The striped oval is **10"** (25.4 cm) height x **11"** (27.94 cm) wide. The stripes are **0.125"** (3.17 mm) wide with a gap of **0.35"** (8.88 mm). The ring of triangles is created from 75 triangles that have a side length of **0.35"** (8.88 mm) using Fit Text to Path.

Create the text, **Ricardo, Bright and Company** using the font Bodini Bold at a height of **1.8"** (4.57 cm). Draw an oval that is **13"** (33.02 cm) high x **14"** (35.56 cm) wide and use Fit Text to Path to create the circular effect with the text.

Fill all shapes with Burgundy (225) vinyl.

If you need information on using these features review the previous lessons or see OMEGA Help. You can find the complete step-by-step instructions on the GSP web site: www.gspinc.com\Customer Corner\Literature\Educational Literature\Chapter 8 Practice Example.pdf.

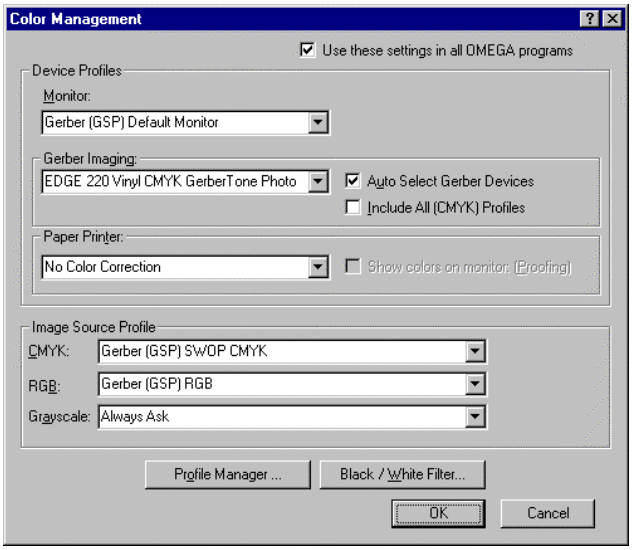
Chapter 9:
Practical Hands-on Color Management



This chapter covers all the tools you need to successfully use OMEGA Color Management. The techniques you will learn:

- Setting up OMEGA Color Management
- Setting up Image Thumbnail
- Assigning the vinyl family
- Setting up the Black/White Filter
- Exporting a vector file as an image
- Setting up CorelDRAW and Adobe Illustrator to use OMEGA color profiles

Lesson 18:
Setting up Color Management



OMEGA Color Management is designed to more accurately represent on-screen vinyl and foil colors, as well as colors that are printed to a paper or vinyl printer. It is easier to change a color on-screen as opposed to changing it after it is output!

Gerber OMEGA Color Management is carefully configured to provide good results with little intervention from the user. You don't have to know how to use it; it just works! Simply follow these quick steps.

In this lesson you will learn how to setup OMEGA Color Management using the following techniques:

- Setting up Color Management
- Setting up the Image Thumbnail
- Assigning the vinyl family
- Answering Color Management FAQ's
- Setting up the Black/White Filter

For more information on using these features refer to OMEGA Help.

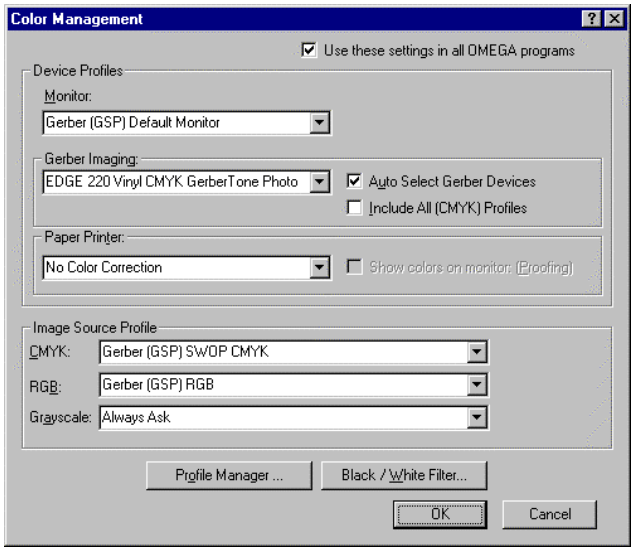
Step 1: Setting up Color Management

Quick instructions

Configure your monitor to display at least 16 million colors. Accept the Color Management default settings.

Detailed instructions

1. Click Start > Settings > Control Panel > Display and choose the Settings tab. In Color, configure your monitor to display at least 16-bit High Color. If you use fewer colors, your monitor will not display accurate on-screen colors.
2. Click OK to close the Display dialog box and OK to close the Control Panel.
3. In Composer, click File > Color Management to open the Color Management dialog box.



4. Use the default settings as shown in the previous illustration.
5. Click OK to exit the dialog box.

These settings will provide good default profiles for on-screen viewing and will automatically choose the proper output profile when printing to an EDGE® or MAXX™ 2. These settings will also allow you to import images such as TIF, BMP, and JPG files without having the Source Profile dialog box display during import and requiring you to choose a profile at that time.

In other words, these settings allow for reasonable HANDS-OFF Color Management without using additional calibration tools.

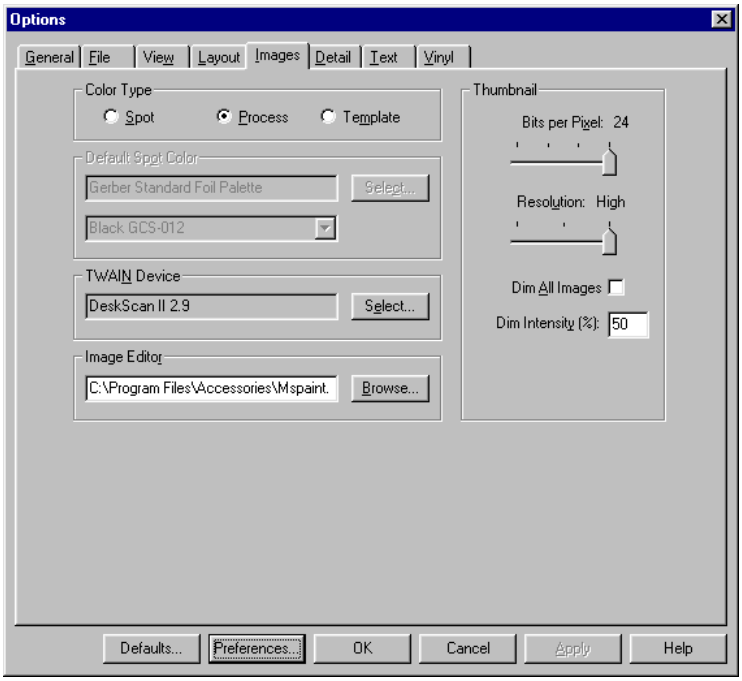
Step 2: Setting up image Thumbnail

Quick instructions

Fill the image with Process color. Set the Thumbnail to 24 Bits per Pixel and High Resolution.

Detailed instructions

1. Click Tools > Options > Images tab.
2. Turn on Process in Color Type.



3 In Thumbnail set the preview colors to 24 Bits per Pixel.

4 Set the Thumbnail Resolution to High.

5 Click Preferences and Save all Pages to make these settings remain in effect until you change them.

6 Click OK.

These settings make it easier to import images and see them with accurate colors. The image Resolution and Thumbnail colors DO NOT CHANGE OUTPUT RESULTS TO THE EDGE, EDGE 2, MAXX 2, OR ImageRIP DEVICES. These settings only affect how images such as BMP, TIF, and JPG files preview on the screen. See the following Thumbnail settings topic for other options.

How Thumbnail settings affect file size and accuracy of display

Some users use other combinations of Thumbnail Resolution and Thumbnail Color to match their color and file size needs. For example, you might set Thumbnail colors (bits per pixel) and Thumbnail Resolution to High while working on a job, then set them both to Low before doing a final save in Composer. This allows users to see images as accurately as possible while designing, but makes the final saved version smaller. Some users design and save with Low Thumbnail Resolution and Thumbnail colors because this is the fastest way to display and produces the smallest files even though the screen results are not very good.

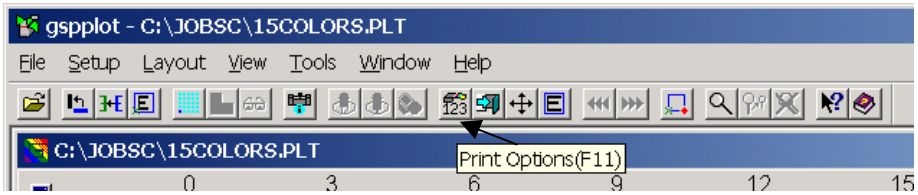
See the following chart to assist in choosing the best Thumbnail setting for you.

Thumbnail Colors (bits per pixel)	Thumbnail Resolution	While Working in Composer and GSPPlot…	When Saving…
24	High	Provides the most accurate color and best on-screen detail for editing.	Largest file size. Basically puts a copy of the image into the PLT file.
24	Low	Provides accurate color results, but low on-screen resolution. Medium file sizes. Good compromise.	Medium file size. Creates 24-bit color with a maximum file size of 200 by 200 pixels.
4	Low	Good for quick jobs. Fastest redraw. Poorest color and edge definition for images. Sometimes hard to design with these settings.	Smallest file size with 256 colors and maximum file size of 200 by 200 pixels.

Note: Thumbnail settings DO NOT affect EDGE, EDGE 2, MAXX 2, or ImageRIP output. Thumbnail settings DO affect image file export (BMP, TIF, and JPG only), paper printing, and generate decal cut.

Step 3: Assigning the vinyl family

Be sure to assign the vinyl family you intend to output either in Composer or in GSPPlot. If vinyl cutting, it will show colors accurately. If printing to a Gerber EDGE, EDGE 2, or MAXX 2, it automatically chooses the proper color and energy settings when printing. If you don't change these settings in Composer, you should change them before outputting in GSPPlot using the substitute feature in the Print Options dialog box.



Color Management FAQ's

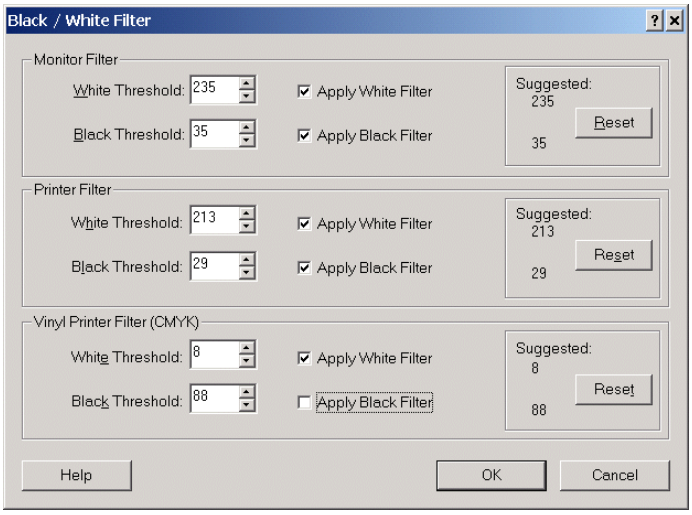
Q. How can I remove little specks in the background of process color images where it is supposed to be pure white?

A. Use the Black/White Filter in the Color Management dialog box. The Black/White Filter is designed to push near white colors to be pure white (C-0, M-0, Y-0, K-0), and push near black colors to be solid black.

A. Some users have also discovered that using an EDGE 2 600 dpi output profile even though they are printing to the EDGE 2 at 300 dpi also seems to help eliminate the background speckles. In GSPPlot, go to the Print Options dialog box (F11), turn off Auto Select and then choose an EDGE 2 600 dpi profile.

Setting up the Black/White filter

1 Click File > Color Management to open the Color Management dialog box, then click Black/White Filter.



2 Press the Reset button next to the Monitor Filter, Printer Filter (Paper Printer) and Vinyl Printer Filter. OMEGA generates automatic settings based upon the ICC profiles you have chosen in the main Color Management dialog box. (Each of these filters work independently from each other so you can pick and choose which filters to use.)

3 Many users keep these filters on as a normal setting. This works well in most cases, however it is recommended that the Vinyl Printer Filter – Black Filter be turned OFF as a normal setting. When the Vinyl Printer – Black Filter is turned on it removes the black component from the cyan, magenta, and yellow colors and applies it all to the black. This means that no black will be printed until the black color of CMYK goes down.

4 Click OK to close the Black/White Filter and OK to close Color Management.

Q. What is the best image file type to use?

A. While you can import popular image types into Gerber OMEGA, the TIF format offers several advantages over other image types.

- The TIF format allows for lossless LZW compression meaning that you get small file sizes without any image deterioration.
- The TIF format allows source profiles to be embedded into the TIF file. OMEGA then automatically uses that embedded profile as the source profile when importing the image. This means that you can get better color fidelity from an image design program such as Adobe PhotoShop into OMEGA. You can embed source profiles into other image formats but OMEGA only uses embedded profiles in TIF files.
- Regardless of the image file type chosen, use the RGB format instead of the CMYK format. RGB offers a larger color gamut and also provides a smaller file size.
- Do not use transparent backgrounds or Alpha Channels. These do not import correctly into OMEGA (You will get an error message "Bad value for samples" and output will be incorrect.)

Q. What resolution should I use for image files such as BMP, TIF, or JPG files?

A. Many users think that images should be scaled to its final output size and saved at 300 dpi. As a rule of thumb for EDGE or MAXX 2 output, you should scale your image to the size you intend to output it, then save it as 100 dpi or 150 dpi, not 300 dpi. For example, if you are scanning a 3" x 5" photo, and intend to output it as a 15" x 25" job, you should set the size in the scan program to 15" x 25" (or scale by 5x) then set the resolution to 100 dpi. This should give you an RGB file size of about 11 MB. If you saved the file as 300 dpi, the image size would be 98 MB, taking up extra disk space and taking longer to render with very little image quality improvements.

Another quick rule of thumb for image file size is that you should have 5 to 10 MB of uncompressed RGB image size per square foot of EDGE or MAXX output. So for the above example of the 15" x 25" job, you have about 2.6 square feet of output size (15 X 25/144). Multiply 2.6 x 5 MB to get 13 MB of file size. Using a scanner program or image export program you can then adjust your scale factors and resolutions to get the desired file size.

If you intend to use an image at several different sizes, you might want the extra file size. You could over-scan the image and use the same image for the different size output.

Exporting a vector file as an image (TIF file) from CorelDRAW or Adobe Illustrator

1. Open the original vector job in CorelDRAW or Adobe Illustrator.
2. Size the job to its intended output size in CorelDRAW or Adobe Illustrator.
3. Go to the File Menu and Export as an RGB TIF. Use 100 dpi as the export resolution. Turn on LZW compression. Embed the profile if it asks. The file size may be large.
4. Import the TIF file into OMEGA. The dimensions should be the same as in the original design program.

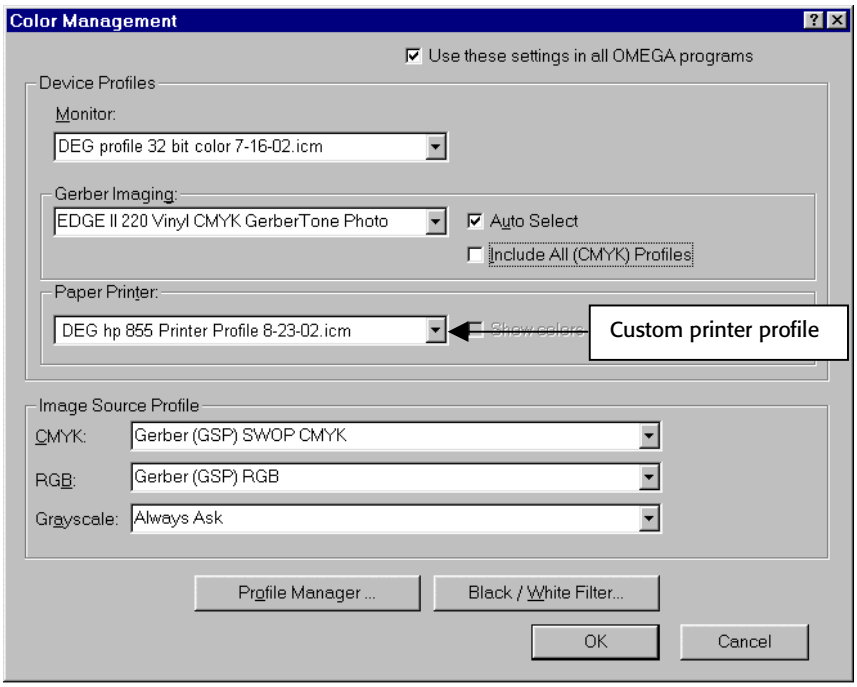
Q. What is MonacoEZcolor for?

A. MonacoEZcolor allows you to create custom profiles based upon your particular scanner, paper printer, or monitor. While it is not required that you use MonacoEZcolor to get decent color results, it is highly recommended that you use MonacoEZcolor to get the best possible color managed results.

At the minimum, you should calibrate your scanner and paper printer because MonacoEZcolor does not require any additional tools to calibrate these devices. See the MonacoEZcolor online manual or the Gerber OMEGA Help system to calibrate your scanner and paper printer.

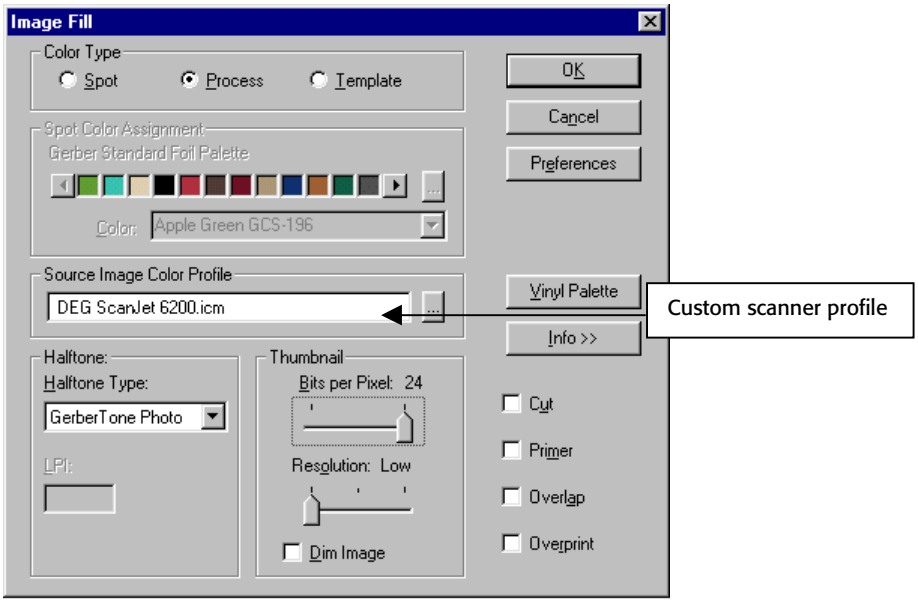
Q. How do I use a custom Paper Printer Profile that I created using MonacoEZcolor?

A. Choose your new Paper Printer profile in the OMEGA Color Management dialog box.



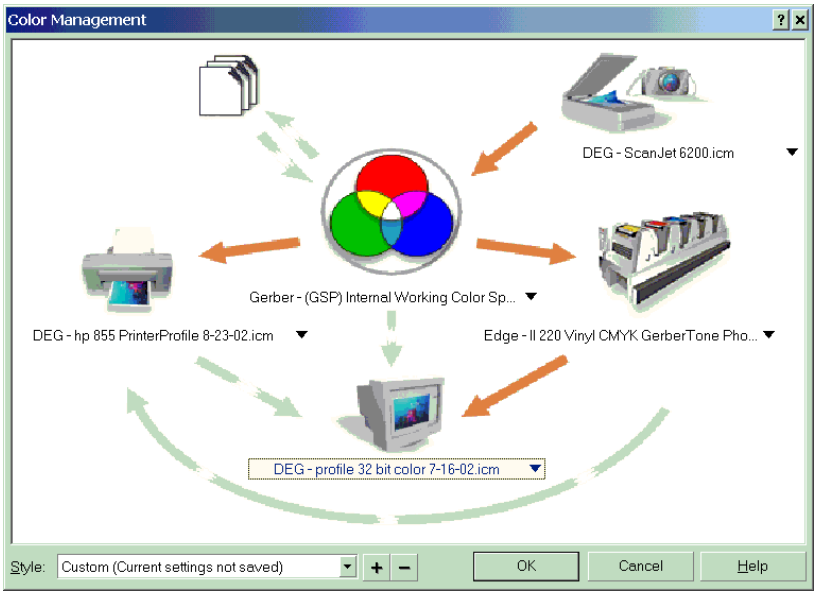
Q. How do I use a custom scanner profile that I created using MonacoEZcolor?

A. After you scan an image, you must apply the scanner profile as the Source Image Color Profile using the Composer Image Fill dialog box.



This completes Lesson 18. Please continue with the next lesson.

Lesson 19:
Making colors more consistent from CorelDRAW or Adobe Illustrator



In this lesson you will learn how to use OMEGA ICC profiles in CorelDRAW or Adobe Illustrator to make colors more consistent. You will use the following new techniques:

- Setting up Color Management in CorelDRAW
- Setting up Color Management in Adobe Illustrator

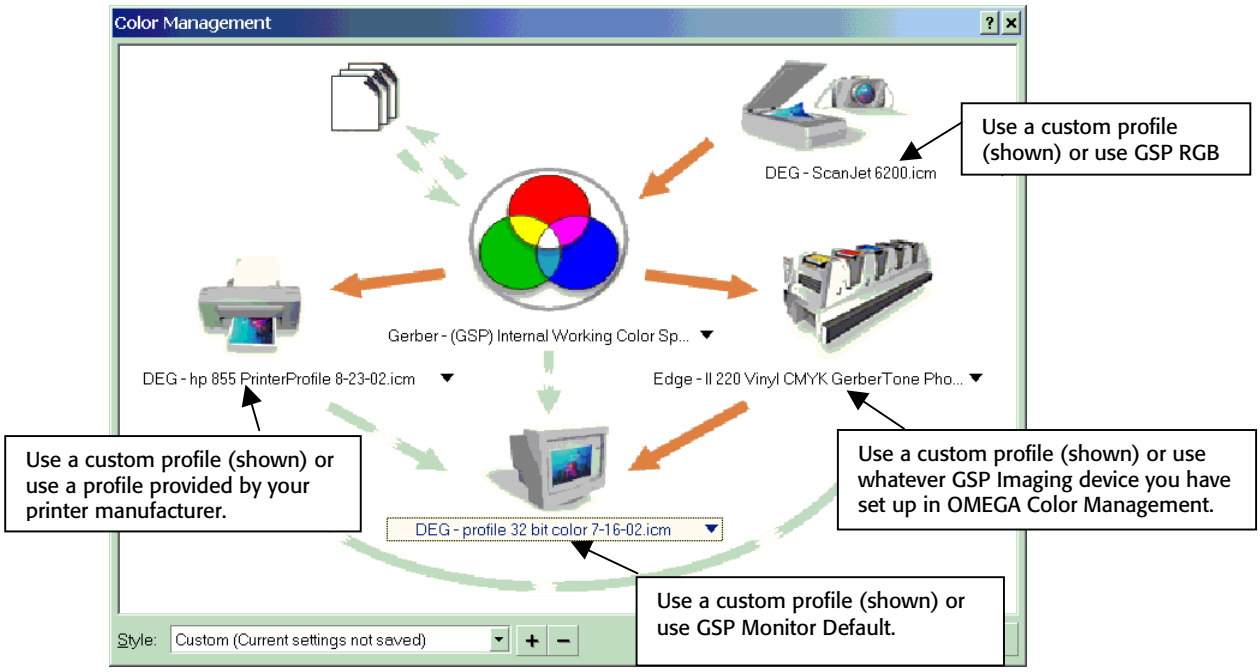
For more information on using these features refer to OMEGA Help.

Setting up CorelDRAW to use OMEGA color profiles

1 In CorelDRAW, click > Tools > Color Management. Apply your custom MonacoEZcolor profiles, or whatever profiles you have set up in the OMEGA Color Management dialog box for the following items:

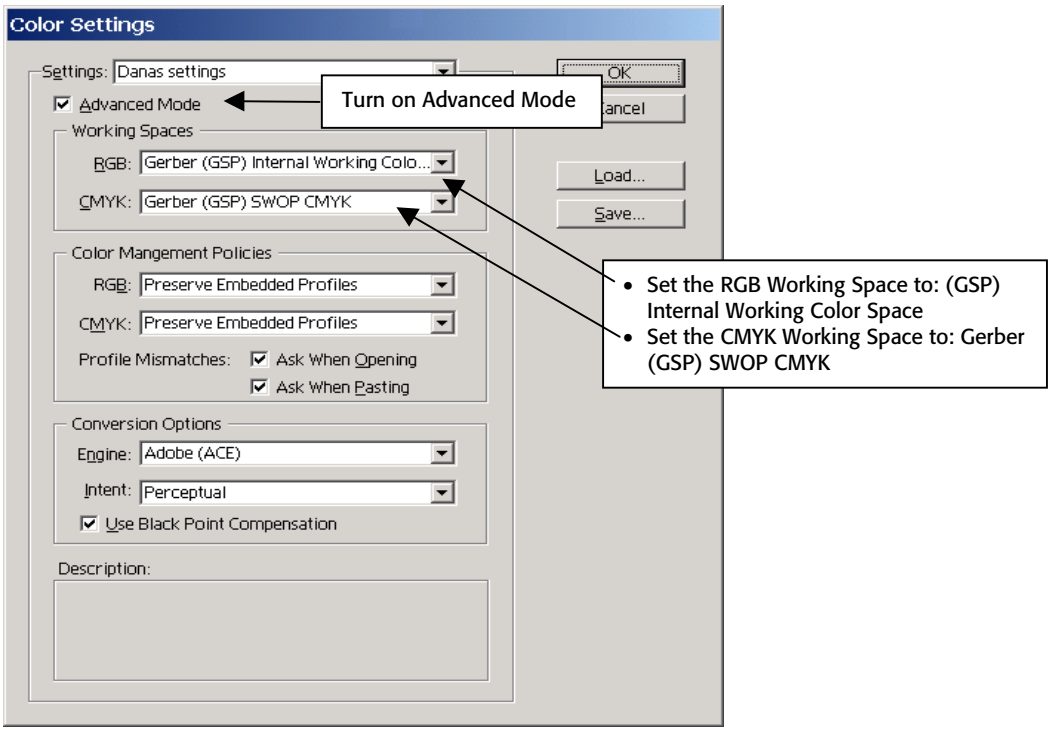
- Monitor
- Scanner
- Internal RGB
- CMYK printer

2 Use the illustration as a guide to the proper settings.



Setting up Adobe Illustrator to use OMEGA color profiles

1 In Adobe Illustrator click Edit > Color Settings to open the Color Settings dialog box. Use the illustration as a guide to the proper settings.

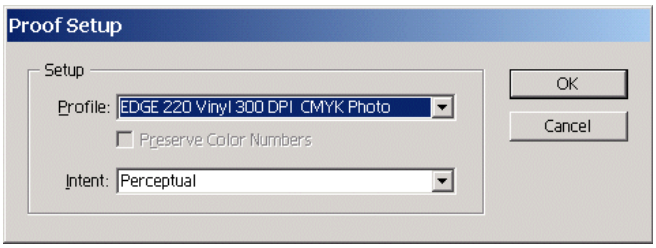


2 Click View > Proof Setup, then choose Custom.

3 In Profile choose a Gerber EDGE profile.

Note: If instead of an EDGE profile you choose a Gerber RGB profile, be sure to turn on Preserve Color Numbers for better results.

4 In Intent choose Perceptual.



5 Click OK to close the Proof Setup dialog box.

6 Go back to the View Menu and turn on Proof Colors to see the job as it will appear on the device.

This completes Lesson 19. Please continue with the next chapter.

Chapter 10:
Designing for a Vinyl Printer

This chapter covers all the tools needed to create the above sign. The techniques you will learn are:

- Coloring with spot colors
- Removing cutlines
- Moving shapes
- Combining text and shapes
- Emphasizing shapes with Stroke
- Troubleshooting on-screen print jobs

Lesson 20:
Preparing your design for printing

In this lesson you will create the above sign using the following new techniques:

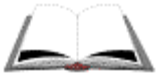
- Coloring with foils
- Working with cutlines
- Combining Text
- Combining Shapes
- Moving layers
- Adding Strokes
- Troubleshooting on-screen print jobs

For more information on using these features refer to OMEGA Help.

Opening a Library file

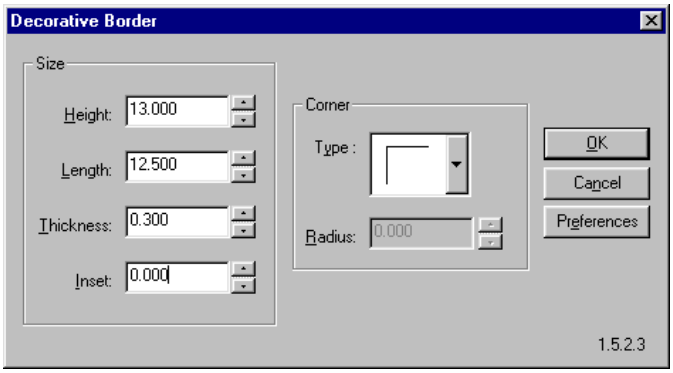
Quick instructions

Create a border **13"** (33.02 cm) x **12.5"** (31.75 cm) with a thickness of **0.3"** (7.6 mm). Open the manwoman.gca library file from the C:\GSP\Library\Sampler folder. Create the text, **RESTROOM** in **1"** (2.54 cm) Helvetica Medium letter, and character space. Justify the shapes so they appear as illustrated.



Detailed instructions

1. Click the Border tool from the Construction fly-out toolbar.
2. Click and drag the Border tool to create a border. When the mouse button is released, the Decorative Border dialog box opens.



3 Enter **13"** (33.02 cm) in the Height text box.

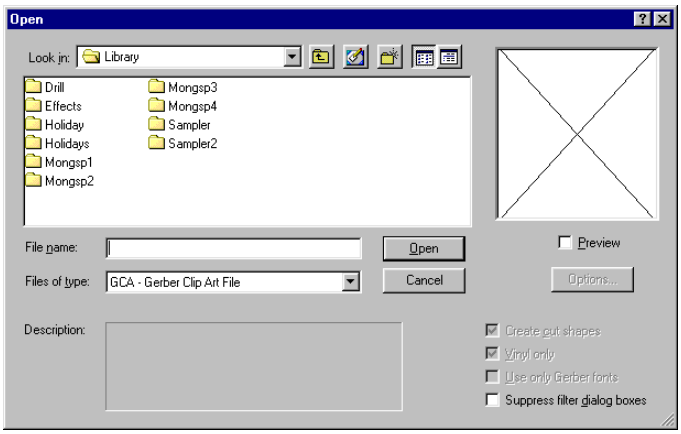
4 Enter **12.5"** (31.75 cm) in the Length text box.

5 Enter **0.3"** (7.6 mm) in the Thickness text box.

6 Click OK.

7 Click Zoom to All.

8 Click File > Library. The Open dialog box opens.



9 Click the Look in down arrow and navigate to the Library\Sampler\manwoman.gca file.

10 Click Open to bring the graphic into Composer. Do not be concerned about the position on the graphic.

11 Select all of the shapes of the manwoman.gca graphic and click Arrange > Group.

12 Click the Circle tool on the Construction fly-out toolbar.

13 Position the crosshair anywhere on the work surface. Hold down the Ctrl key, and click and drag a circle. *Do not be concerned with the size of the circle.*

> **Tip**: Hold down the Shift + Ctrl keys to create a perfect circle that grows larger from the center point.

14 Click the Selection tool to select the circle.

15 Click Shape > Absolute Size. The Absolute Size dialog box opens.

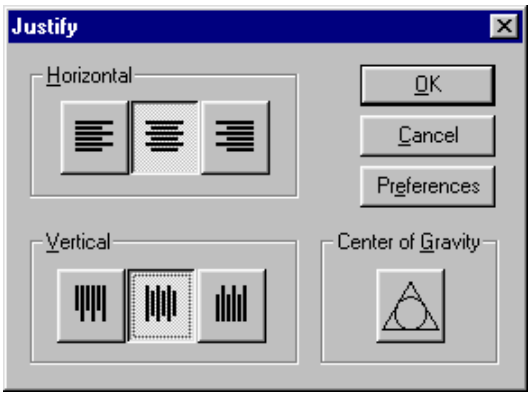
16 Choose Uniform from the Size Type box.

17 Enter **10"** (25.4 cm) in the Height text box.

18 Click OK.

19 Select the circle and the graphic.

20 Click Arrange > Justify.



21 Choose Center and Middle justify buttons. (shortcut key 7)

22 Click OK.

23 Move the circle and graphic into the approximate location. *Do not be concerned with centering.*

24 Click the TOWS tool from the Text fly-out toolbar.

25 Click anywhere on the work surface to activate the TOWS toolbar.

26 Choose Helvetica Medium from the Font Select list.

27 Double-click the Letter Height text box, and enter **1"** (2.54 cm).

28 Click on the work surface and type **RESTROOMS** all in capital letters.

29 Turn on Character spacing from the Text toolbar.

30 Click and drag a spacing handle out until the text appears as illustrated.

31 Move the text so it is positioned the appropriate distance from the top of the border. *Do not be concerned with centering.*

32 Click Select > All. The entire design becomes highlighted.

33 Click Arrange > Justify. The Justify dialog box opens.

34 Choose the Center justify button.

35 Click OK.

Creating a new window

Many people like to design in the wireframe mode, but want to view their work in color. Follow the directions below to view Wireframe and Filled mode simultaneously.

1 Click Window > New Window.

2 Click Window > Tile Vertically.

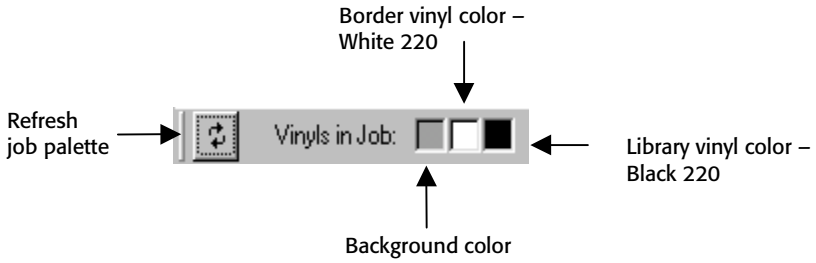
3 Click anywhere in the right hand design to activate the window.

4 Click View > Filled to view color in the active window.

Choosing your vinyl color

When printing with foils, it is important to use only one vinyl color in the design. If multiple vinyls are used, there may be issues when viewing the design in Filled mode, or when printing the design on a vinyl printer.

The current job is a cut vinyl job. The border is white, which is the default for newly created shapes. The graphic is black.



Note: Most Library graphics come into Composer on Black vinyl.

1. Click Select > All.
2. Click the White 220 swatch to assign white vinyl to all shapes.
3. Click the Refresh Job Palette button to update the job palette to include only the currently used vinyls.

Coloring with the spot color on-screen palette

There are two ways to fill a shape with foil colors using the on-screen palettes: clicking and dragging color or coloring a selected shape.

Clicking and dragging a foil color

1. Position the pointer over the top swatch color of the first vertical color palette on the right side of the window. This is the Spot Color Palette.

Note: If the spot color palette is not displayed, click View > Color Palette > Show Foil Palette.

2. Move the pointer down the palette. The color names are viewed on the left side of the Status bar.
3. Click and drag Ruby Red inside the circle of the Wireframe mode window, but not in the graphic. Release the mouse button to set the color.

Coloring a selected shape

1. Select the graphic and text.
2. Position the pointer over the down arrow on the Spot Color Palette. Click the down arrow to scroll through the swatch colors.

3 Click Intense Blue. Do not be concerned with the look of the Filled mode window.

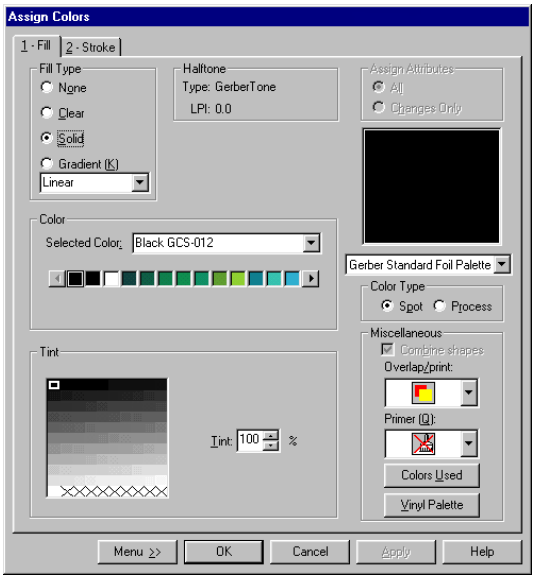
Note: After coloring the text, circle and graphic, the Wireframe mode displays green (cut and print objects) when the selection is canceled.

Coloring with the Fill tool

1 In the Wireframe mode window, select the border.

2 Click the Fill tool from the Toolbox toolbar. The Assign Colors dialog box opens.

Clear fill vs. No fill: Clear fill is considered a printed shape even though no foil is used. Cutlines can be turned off on a Clear fill, but not on a shape with no fill. No fill is considered a cut vinyl shape.



3 Choose Solid from the Fill Type box.

4 Click the Selected Color list down arrow, and scroll to find Ruby Red.

5 Click Ruby Red. The preview box displays red.

6 Click OK.

Tip: The Assign Colors dialog box also allows you to choose several different types of fills and strokes:

Clear: utilizes the vinyl color in the design. Clear fills simulate a foil in Composer, but a foil is not requested at the printer.

Solid: Choose Process or Spot (including Spectratone) colors. You can assign a tint to solid fills.

Gradient: Choose from linear or radial gradient fills. You can choose multiple Process or Spot (including Spectratone) colors to create the gradient. When using Spot or Spectratone colors tints are also available.

Working with cutlines

Cutline: The path a plotter will follow to cut a shape.

All newly created shapes are assigned cutlines prior to coloring with foil colors. This is because the job is assumed to be a cut vinyl job.

With printed jobs, it is important to consider what elements of the job should be cut and which should not.

Locating cutlines through Wireframe mode

Wireframe mode uses three colors to distinguish how shapes will be handled when sent to a printer and/or a plotter. Wireframe is an extremely useful tool for determining output and troubleshooting a job.

- **Black wireframe** – Cut-only shape. There is no fill color applied to the shape. It will be cut on a plotter.
- **Green wireframe** – Print and cut shape. A printer will apply a fill color and the shape will be cut on a plotter.
- **Red wireframe** – Print only shapes. A printer will apply a fill color, but the cut has been turned off so it will not cut on a plotter.

> **Tip**: Black "cut-only" wireframe shapes are usually for cut vinyl jobs, outmost shapes, and shapes to be removed from the inside of a design.

Look at the design in the wireframe window. When nothing is selected, all shapes appear as green outlines.

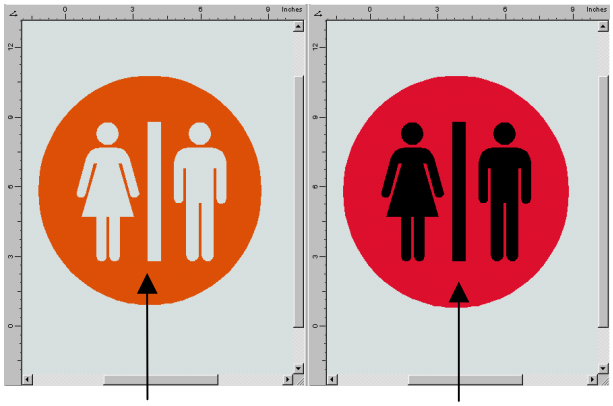
Print Order Design – displays all objects in a job.

Print Order Output – shows objects as they would appear if printed on the GERBER EDGE, cut on a plotter and weeded away.

Locating cutlines through color mode

When View > Print Order Output is active, the monitor displays Filled mode as if the design is a finished product. It reads the colors, cutlines, and layers, and displays how the job looks after it is weeded and applied.

The following illustration on the left shows the library graphic after being weeded away from the rest of the design, leaving the background (the gray color) showing where the graphic had been. This indicates that cutlines are present around the graphic.



Library with cutlines. You see the background instead of the blue fill.

Library without cutlines. The fill color displays

> **Tip:** Use the Select menu to quickly select all shapes with similar attributes, for example, cutlines, spot color fills, or vinyl colors. This allows for global changes of similar shapes, viewing characteristics, or troubleshooting the job.

Removing cutlines

1. Click Select > All.
2. Click Arrange > Cuts Off. Do not be concerned with the appearance of the Filled mode screen. You will learn to recognize and resolve these issues in the next few procedures.

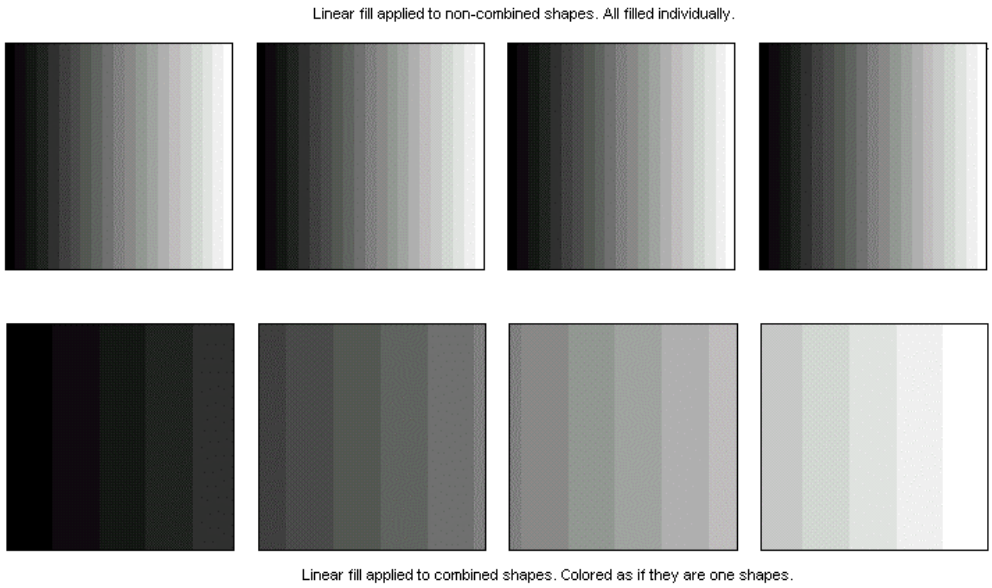
The wireframe window shows red – print only.

Note: If your Filled mode window did not incorporate the changes, click the window, then click View > Redraw. Your screen should look like the following illustration.

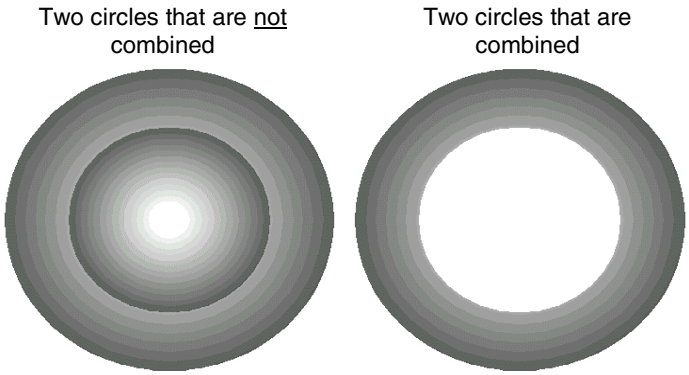
Combining shapes

What does combining shapes do?

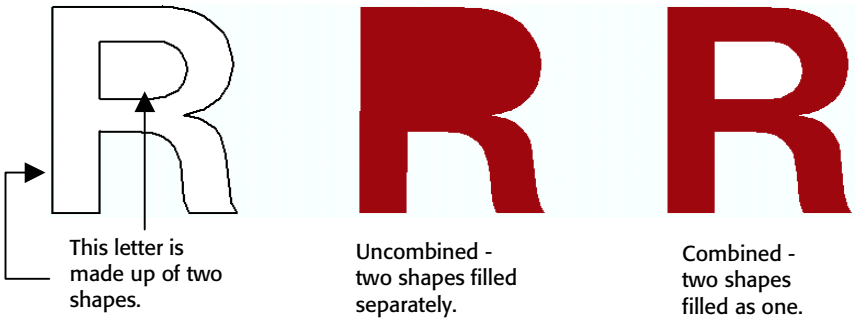
- It assigns a continual fill through all the selected shapes and links them together for easy selecting with the Color Selection tool. See the following illustration.



- Overlapped shapes that have the same fill and are combined produce a hollow appearance.



- Text needs to be combined to display correctly.



Note: Combine On is the default when a shape is filled through Assign Colors. Combine Off is the default when a shape is filled with the spot or process color palette on the work surface.

Combining text

1 Marquee select the text to combine.

2 Click Combine On located on the Arrange toolbar. Once combined, the text should look like the following illustration.

Combine On

Combine Off

Moving layers

There are 4 different commands to move shapes between layers:

- To Front – Moves the selected shape to the front of the design.
- To Back – Moves the selected shape to the back of the design.
- Front 1 – Moves the selected shape forward one layer.
- Back 1 – Moves the selected shape back one layer.

1 Select the graphic with the Selection tool.

Note: When using the Color Selection tool (green pointer) to select the graphic, only part of the graphic is selected because the shapes are not combined. Use the Selection tool (black pointer) to select the entire graphic at the same time or marquee selection using the Color Selection tool.

2 Click Arrange > To Front. The job looks correct.

3 Click File > Save and save this file in C:\Jobs\ *My Lessons* folder.

This completes Lesson 20. Please do the exercises that follow to review what you have just learned.

Lesson 20: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

Recreate the following sign using Black and Intense Red for spot foil colors. The sign should preview correctly in Filled mode.

Note: Save this job in the Jobs folder as Stop.plt. It will be used for a lesson later in this document.

Exercise 2

Recreate the design below using the Broadway font and the Berling Italic font. The rectangle is Gold spot color. The text and internal rectangle are Black.

Lesson 21:
Troubleshooting on-screen print jobs in 5 steps

To be productive, it is important to understand the steps needed to design a printed job. The following procedures summarize what you learned in the previous lessons in a concise way.

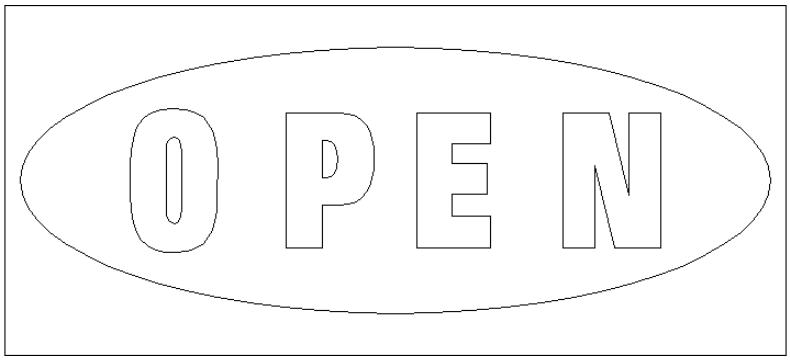
In this lesson you will review the 5 steps to creating a vinyl print job.

- Check and assign vinyl
- Check and assign fill colors
- Check and turn on/off cutlines
- Move shapes
- Combine shapes

For more information on using these features refer to OMEGA Help.

Step 1: Check and assign vinyl

1 Open the C:\Jobs\Learning\Open.plt file.



2 Click View > Filled (F8) to view the colors in the job.

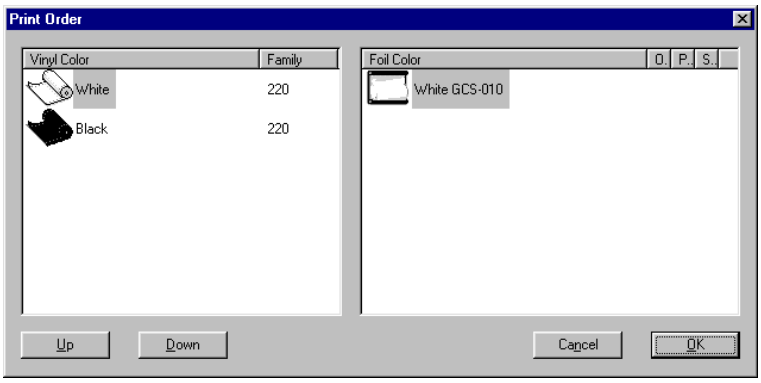
Determine the vinyl makeup of the job. Remember, for the job to print and view correctly, use only one vinyl.

There are several easy ways to check vinyl colors:

- Checking the Print Order dialog box
- Checking the Style boxes
- Using the Select menu

Checking the Print Order dialog box

1. Click Arrange > Print Order to open the Print Order dialog box.
2. The left side of the dialog box displays the vinyls in the job. The right side lists the foils. Note that White 220 and Black 220 vinyl are in the job.



3. Click OK to close the Print Order dialog box.

Checking vinyl colors through the Style boxes

The Style boxes are located on the right side of the Status bar. When a shape is selected, it displays the vinyl and fill color assigned to the shape.

Note: When no shape is selected, the boxes display the current style. The current style is the last foil and vinyl color applied to a shape.

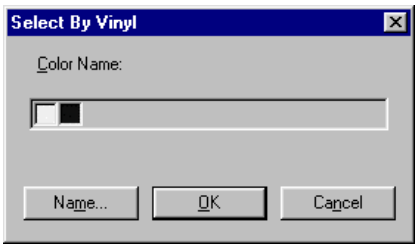
1. Click View > Wireframe to turn off Filled mode. This helps you determine which objects are selected.
2. Select the oval with the Selection tool.

3 View the Style boxes in the right-hand side of the Status bar.

4 The Style boxes inform us that no Spot or Process colors have been assigned to the oval and it uses White vinyl.

Checking vinyl colors through the Select menu

1 Click Select > Vinyl Color. The Select By Vinyl dialog box opens. It displays all the vinyl colors that make up the job.



2 Click the Black vinyl swatch to select the object(s) that are filled with Black vinyl.

3 Click OK. The text is selected.

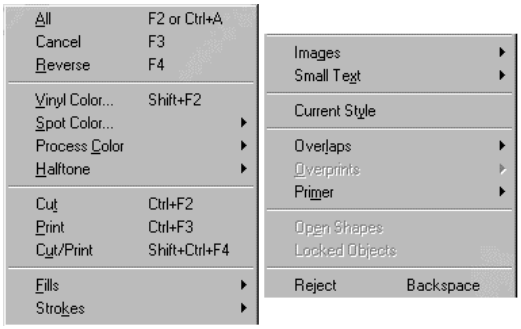
4 To assign White vinyl to the text, click the White vinyl swatch in the Vinyls in Job palette located on the left side of the Status bar.

5 Click Arrange > Print Order to open the Print Order dialog box. Note that there is now only one vinyl in the job. Click OK.

Tip: You can update the Vinyls in Job palette by clicking the Refresh Job Palette button located to the left of the palette. Vinyls that are no longer used in the job are removed from the palette.

Step 2: Check and assign fill colors

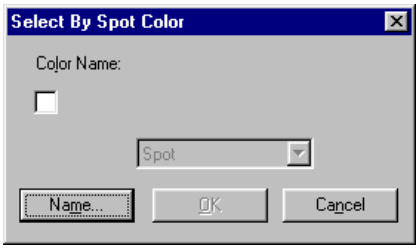
The Select menu can be a powerful troubleshooting tool for you. By reviewing the menu items that are bold, you can determine the vinyl and foil makeup of your job.



What can you tell about this job by looking at the Select menu?

The Spot Color menu item is bold. This indicates a spot color has been assigned to one or more shapes.

1. Click Select > Spot Color > Fills to open the Select By Spot Color box.



2. Click the White swatch and click OK to select any object that is colored white.
3. Color the job with the following fills from the ***on-screen*** palette. You can use the colors suggested below, or use your own.
   - Rectangle – Black
   - Oval – Yellow
   - Text – Green

> **Tip:** When assigning fills, always start from the outside of an object and work toward the inside. This helps to correctly arrange and layer the colors.

Step 3: Check and turn on/off cutlines

A plotter cuts all assigned cutlines. It is important to position the cutlines only where they are needed.

What are the two ways to determine if there are cutlines assigned to the job?

- In Wireframe mode, black and green lines indicate cutlines.
- In the Select menu, if Cut or Cut/Print is bold there are cutlines assigned.

What do the black, green, and red wireframe lines mean?

- Black – Cut only
- Green – Print and Cut
- Red – Print only

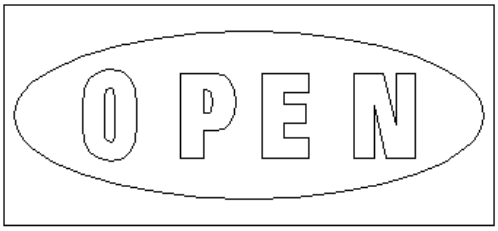
Assigning the appropriate cutlines

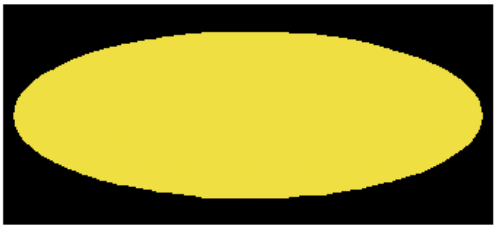
For this sign, the only cut shape will be the outermost shape.

1. Select the text and the oval.
2. Click Arrange > Cuts Off. The Wireframe mode shows the outermost shape as green, and the text and oval as red.

Step 4: Moving shapes

1 Click View > Filled to view the colors in the job.





If a shape does not preview in Filled mode, it may be positioned behind a larger shape. If a shape isn't layered in the correct order, it does not print in the correct order either.

2 Click View > Wireframe to turn off Filled mode.

3 Select the text with the Selection tool.

4 Click Arrange > To Front to bring the text all the way to the front of the design.

5 Click View > Filled to view the colors in the job. If you colored your text with the on-screen foil palette, the text may not appear correct. Do not be concerned, it is addressed next.

If moving the shape(s) does not resolve the problem, what other areas should you check?

Select the missing shape:

- Is the vinyl color the same as the rest of the design?
- Is the assigned fill color the same as the shape below it?
- Have the cutlines been removed?

Step 5: Combining shapes

When multiple shapes are selected and colored through the Fill tool, Combine On is the default. In order to view what text looks like with Combine Off, you colored the text with the on-screen spot color palette.

If the centers of your letters or shapes are filled in, such as the "O" and the "P" in the example above, Combine is turned off. This is because each shape (the outside of the "O" and the inside of the "O") is being colored independently of the other.

1. Click View > Wireframe to turn off Filled mode.
2. Select the text with the Selection tool.
3. Click Arrange > Combine On.
4. Click View > Filled. The design displays correctly.

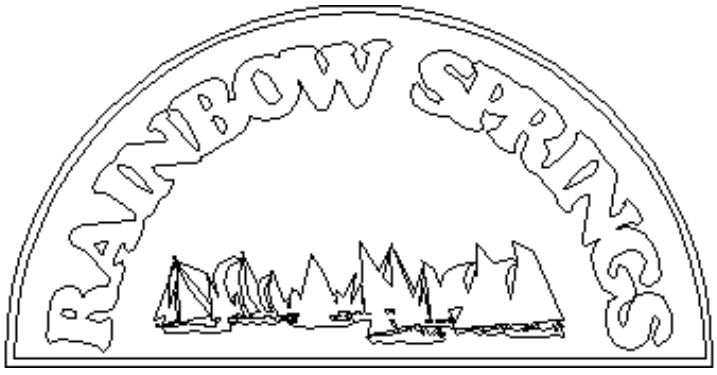
Quick review of the 5 steps

1. Check and assign vinyl colors.
2. Check and assign fill colors.
3. Check and assign cutlines.
4. Move hidden shapes.
5. Combine shapes.

This completes Lesson 21. Please do the exercise that follows to review what you have just learned.

Lesson 21: Practice Example

This exercise reinforces the Composer features that you have just learned. If you are unsure how to complete it, review the previous lesson.



There are 4 different Rainbow Springs jobs in the C:\Jobs\Learning folder named Rainbow1-4.plt. The 4 jobs have errors in them that need to be fixed in order for them to print correctly. Each job relates to one of the 5 steps explained in this lesson. Once you have completed the exercise, visit the Gerber web site at www.gspinc.com to check your answers. The answers are located in the following location on the web site: Customer Corner > Literature > Educational Literature > Chapter 10 Practice Example.pdf.

Chapter 11: Printing and Cutting Techniques for Spot Color Jobs

This chapter covers all the tools needed to properly print the above signs. The techniques you will learn are:

- Overprinting a shape
- Working with Choke/Spread
- Working with Strokes
- Checking Print Order in Composer and GSPPlot
- Applying a Bleed
- Outputting to a vinyl printer and plotter
- Substituting vinyls or foils
- Registration solutions

Lesson 22:
Ensuring your print-to-print registration

In this lesson you will create the above sign using the following new techniques:

- Overprinting a shape
- Working with Choke/Spread
- Using Strokes

For more information on using these features refer to OMEGA Help.

Opening an existing file

Quick instructions

Open the Clipper.plt file from C:\Jobs\Learning folder.

Detailed instructions

1. Click File > Open.
2. Navigate to the C:\Jobs\Learning folder.
3. Open the Clipper.plt file.

Understanding the vinyl printing process

When designing in Composer, shapes often overlap each other. However, during the printing process the vinyl printer abutts the shape to avoid discoloration of overlapped foils. See the following examples.

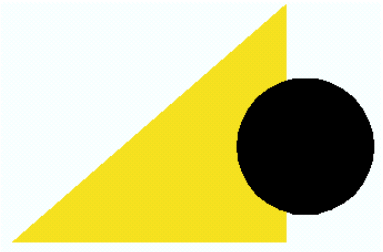
Abutted shapes can leave gaps of vinyl showing between the shapes resulting in poor print-to-print registration. This chapter explains how to resolve this.

Overlapping/Overprinting shapes

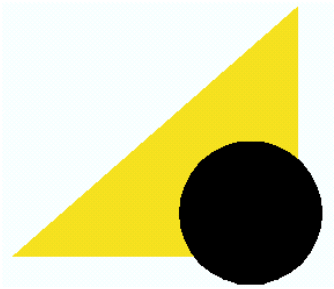
Even though the printer will not automatically overlap two foil colors, Composer can override this feature. When Black or a very dark foil is assigned to the top shape, the easiest way to resolve print registration issues (the gap between the foil colors) is to assign Overlap or Overprint to the top shape.

Overlap and Overprint both ensure that the bottom shape prints entirely. The difference is when they are used.

- Overlap – use when the top shape covers the bottom shape 50% or less.



- Overprint – use when the top shape is more than 50% over the bottom shape.



Note: Overprint prints at a higher heat setting. When overprint is needed for only one object in a design, but there are other objects filled with the same color, the best use of foil is to assign overprint to every shape with that color. In that way, the foil only prints once using the higher heat setting.

1. Click View > Filled to preview the color.
2. Click View > Wireframe to turn the color off.
3. Select the boat with the Selection tool.
4. Click the lower right triangle of the Fill tool to access the Fill fly-out toolbar.

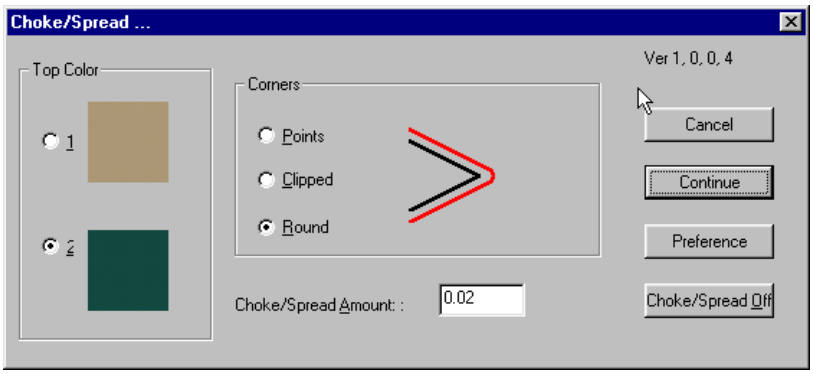
5. Click Overprint. Overprint is always assigned to the top shape.

Tip: Only use Overlap or Overprint when the top overlapping color is a very dark foil color.

Using Choke/Spread

When Overlap or Overprint is not an appropriate choice due to possible color shifts, Choke/Spread can be used. Choke/Spread extends the lighter color slightly under the darker color. This eliminates a gap between the colors, while minimizing visible color shifts.

1. Select the outside shape with the Selection tool.
2. Hold down the Shift key and click the text.
3. Click Tools > Choke/Spread. The Choke/Spread dialog box opens.

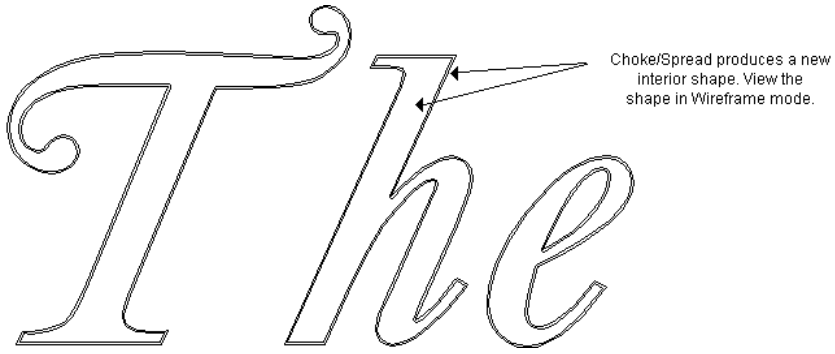


4. Choose Forest Green as the Top Color.

Note: Always choose the darkest color as the top color.

5. Enter **0.02"** (0.5 mm) in the Choke/Spread Amount text box.
6. Click Continue.
7. Click the Zoom In tool.

8 Click and drag a marquee selection box around part of the text to magnify it.



9 Select the interior shape of the text with the Selection tool.

10 View the Style boxes on the Status bar. The fill box is Champagne Gold. Choke/Spread has extended the bottom (or lighter) color under the Forest Green.

11 Zoom to All.

12 Smart edit the text (double click) to return to the Choke/Spread dialog box.

13 Click Choke/Spread Off.

Using a stroke as a choke

Stroke: Often used in the place of outlines for printed shapes.

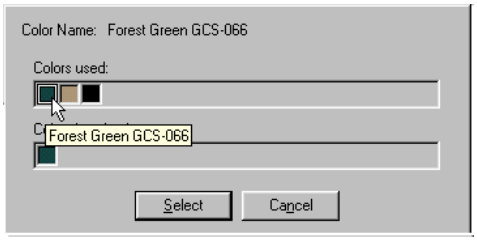
Like an outline, a stroke adds thickness to a shape. Unlike an outline, a stroke does not add an extra shape to the job. Strokes can straddle the edge of a vector shape (overlapping other fills) or be placed outside the shape. In this example, the stroke will overlap the other fill.

1 Select the text, The Clipper Inn.

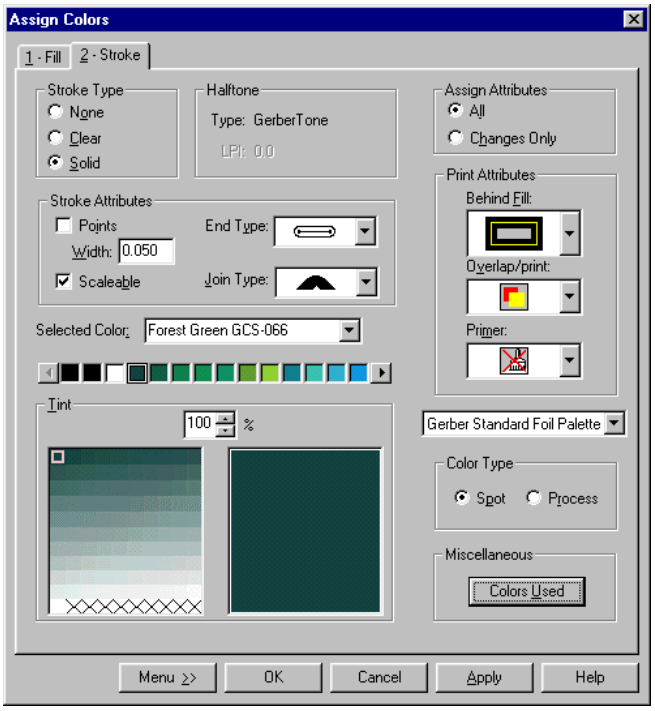
2 Click on Stroke tool to open the Stroke tab of the Assign Colors dialog box.

3 Choose a Solid Stroke type.

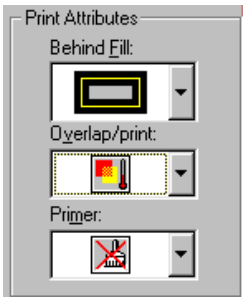
4 Click the Colors Used button.



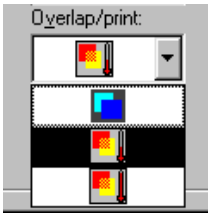
5 Choose the Forest Green swatch and click Select to return to the Stroke tab.



6 In Print Attributes, accept Behind Fill as the default (straddling the line).



7 Choose Overlap in Overlap/print.

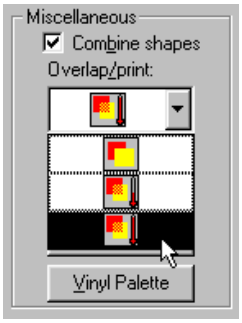


> **Tip:** Overlap prints at a regular heat setting so, with this setting Forest Green will not print twice.

8 Click OK.

Using stroke as an outline to improve registration

1. Smart Edit the text to reopen Assign Colors dialog box and click the Stroke tab.
2. Change the Selected Color to Black.
3. Change the Overlap/Print to OverPrint.

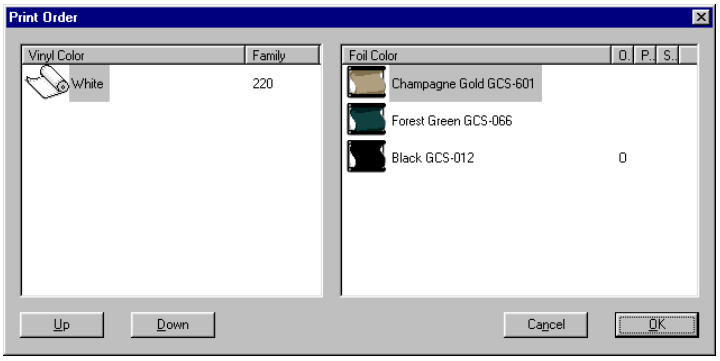


> **Tip:** We have already assigned the ship clip art to be Overprinted. Since Overprint foils print at a higher heat setting, all non-overprinted Black fills print first (at regular heat), and then all Overprinted Black fills print separately (at higher heat). If we assign Overprint to the Black stroke, all of the Black fills in the job will be Overprinted (at a higher heat setting) and thus, only print once.

4. Click OK to return to the work surface.
5. Save the job.

Using and assigning print order in Composer

1. Click Arrange > Print Order to open the Print Order dialog box.



2. Note that Black has an O beside it, indicating that Black has been assigned an Overlap/print.

3 In Print Order, you can rearrange foils colors into the order in which they should print. Usually they should be in order from light to dark and the Overlapped/printed shapes should print last.

Note: You can also make these adjustments in GSPPlot in the Print Options dialog box.

Reverse printing

Quick instructions

When designing a job that will be reverse printed, design it as usual with overprints, etc. and then output to GSPPlot where you can set reverse print options. In this example, you will use the Reverse command to mirror the job and then apply a Backing White undercoat.

Detailed instructions

1 Output the job to GSPPlot. The GSPPlot window opens.

2 Click the Reverse icon (F3) to mirror the job.

Print Shapes: Applies backing or finish foil to only the printed (not cut-only shapes.

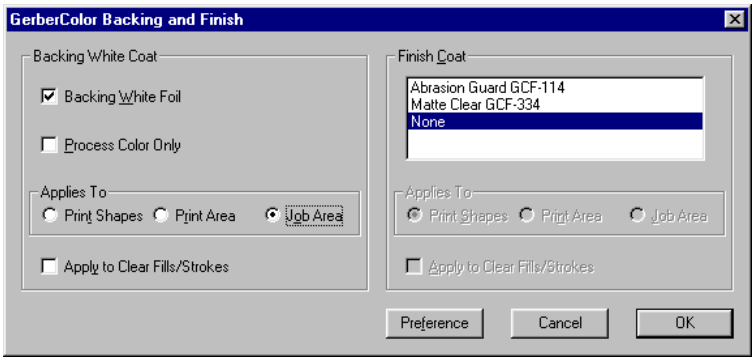
Print Area: Applies backing or finish foil to the area within the bounding box that surrounds print shapes.

Job Area: Applies backing or finishing foil all the way to the job boundaries including print and cut-only shapes.

3 Click Setup > Print Options to open the Print Options dialog box.

4 Turn on Reverse Print Order.

5 Click Backing/Finishing to open the GerberColor Backing and Finish dialog box.



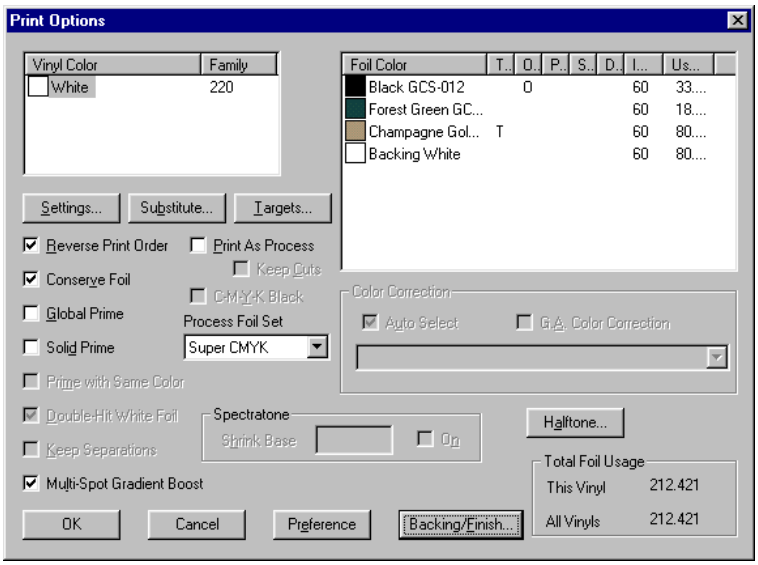
6 Turn on Backing White to activate the controls.

7 Turn off Process Color Only to apply Backing White to spot and process colors.

8 In Application Type choose Job Area.

Tip: If there are clear fills or strokes in a job, turn on Apply to Clear Fills/Strokes to apply Backing White to any clear objects. When this option is turned off, any clear fills or strokes do not have Backing White foil applied to them and the vinyl will show through.

9 Click OK to return to the Print Options dialog box where you can review the print order of the foils.



10 Click OK to apply the settings to the job and return to GSPPlot where you can output the job.

This completes Lesson 22. Please do the exercises that follow to review what you have just learned.

Lesson 22: Exercises

These exercises reinforce the Composer features that you have just learned. If you are unsure how to complete them, review the previous lesson.

Exercise 1

Open the Stop.plt file created in Lesson 17 from the Jobs folder. Ensure proper print registration using the techniques taught in this chapter.

Exercise 2

Open the file C:\Jobs\Learning\Gift Horse.plt. Edit the file to ensure proper print registration.

Lesson 23:
Ensuring print-to-cut registration

In this lesson you will create the above signs using the following new techniques:

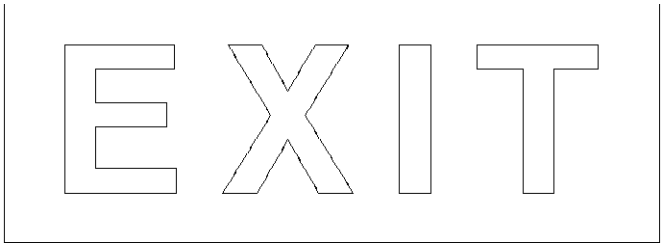
- Applying a Bleed
- Outputting to a vinyl printer and plotter
- Substituting material

For more information on using these features refer to OMEGA Help.

Creating the design

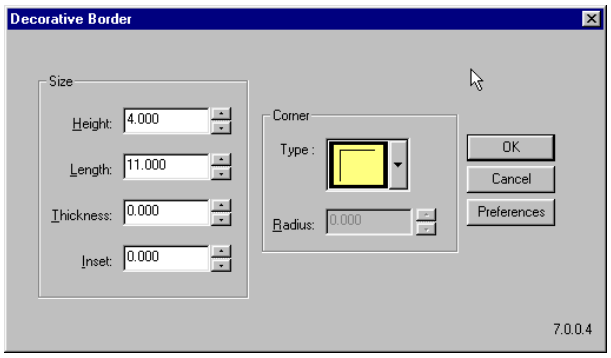
Quick instructions

Create a box that is **4"** (10.16 cm) by **11"** (27.94 cm). Using the TOWS tool, type **EXIT** in Helvetica Medium that is **2.5"** (6.35 cm). Character space the text so it appears as in the following illustration. Justify the design.

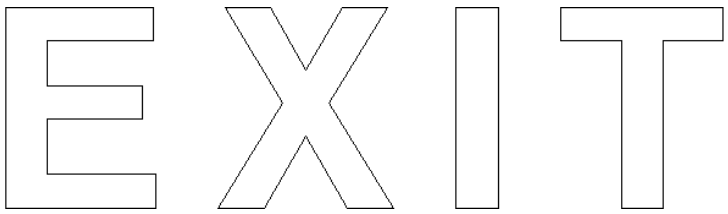


Detailed instructions

1. Click the arrow in the lower right corner of the displayed construction tool to access the Construction fly-out toolbar.
2. Click the Border tool.
3. Click and drag the border tool to create a rectangle. When the mouse button is released, the Decorative Border dialog box opens.



4. Enter a height of **4"** (10.16 cm) and a length of **11"** (27.94 cm).
5. Click OK.
6. Click the Text on the Work Surface tool.
7. Click anywhere on the work surface to activate the TOWS toolbar.
8. Choose Helvetica Medium from the Select Font list.
9. Double-click the Font Height text box, and enter **2.5"** (6.35 cm).
10. Press Enter and type **EXIT** in capital letters.
11. Click the Character Spacing button on the text toolbar to turn on character spacing.
12. Position the pointer on either spacing handle, and click and drag out until it resembles the illustration. Release the mouse button to set the spacing.



13. Turn off Character Spacing.
14. Click Select > All.
15. Click Arrange > Justify The Justify dialog box opens.
16. Choose the Center and Middle justify buttons.
17. Click OK.

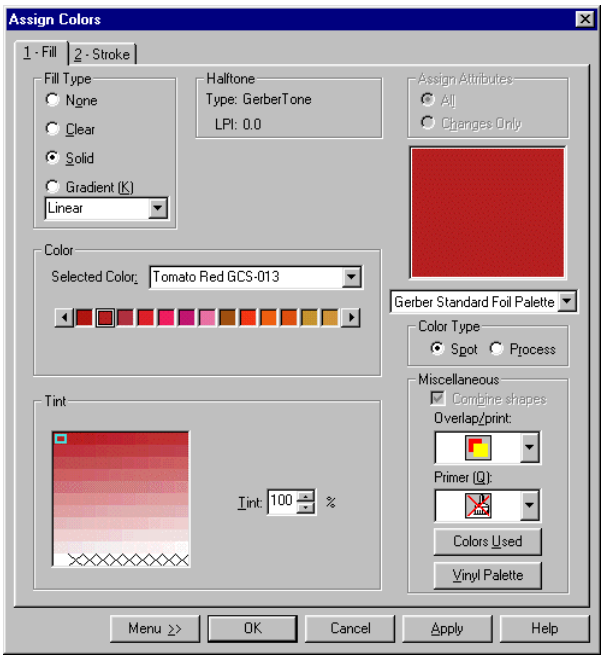
Coloring the design

Quick instructions

Color the entire design Tomato Red using the Fill tool, and remove interior cutlines.

Detailed instructions

1. Click Select > All.
2. Click the White (220) vinyl swatch on the vinyl palette.
3. Click the Fill tool from the Toolbox toolbar. The Assign Colors dialog box opens.



4. Choose Solid from the Fill Type box.
5. Choose Tomato Red from the Selected Color drop-down list.
6. Click OK.
7. Click the Selection tool (not the Color Selection tool), then select the text.
8. Click Arrange > Cuts Off.
9. Click View > Filled to preview the color in the job.

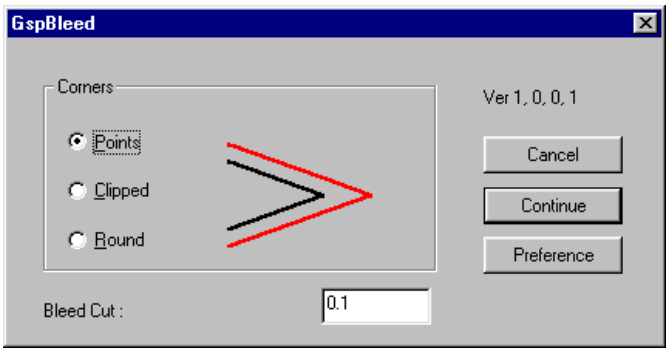
Note: The job displays correctly because Combine On is the default in the Assign Color dialog box. The rectangle is combined with the text, creating a hollowing of the letters.

Applying a Bleed

A Bleed extends the fill color of the selected shape slightly past the assigned cutline. Without a Bleed, the cut may include some of the uncolored vinyl causing a registration problem.

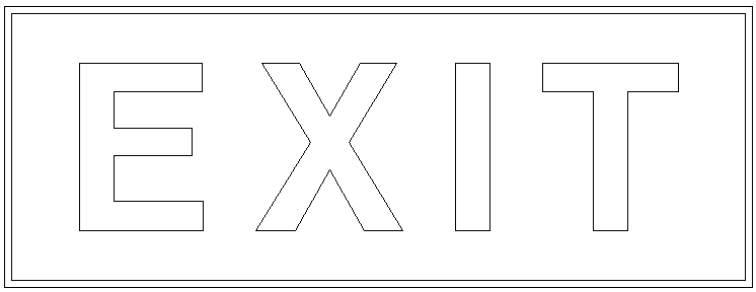
Note: To assign a Bleed, the selected shape must have a fill color and a cutline.

1. Click View > Wireframe.
2. Select the rectangle with the Selection tool.
3. Click Tools > Bleed. The GspBleed dialog box opens.



4. Choose Points for the Corner type.
5. Enter **0.1"** (2.54 mm) in the Bleed Cut text box.
6. Click Continue. Notice that the black line (representing the cut line) falls inside the red line (representing the edge of the printed shape).

Tip: Remember that when you put a cut in a job, you must apply a bleed. ("When you cut, you bleed.")



Opening a saved file and applying a Bleed

Quick instructions

Open the C:\Job\My Lessons\Clipper.plt file. Select the outermost shape and apply a Bleed to eliminate potential print-to-cut registration problems.

Detailed instructions

To retrieve the file, click Window > Clipper.plt. If the file is not listed in the Window menu, follow the directions below.

1. Click File > Open.
2. Navigate to C:\Jobs\My Lessons\Clipper.plt.
3. Click Open.
4. Select the outermost shape with the Selection tool.
5. Click Tools > Bleed to open the GspBleed dialog box.
6. Choose Points for the Corner type.
7. Enter **0.1"** (2.54 mm) in the Bleed Cut text box.
8. Click Continue. Notice that the black line (representing the cut line) falls inside the red line (representing the edge of the printed shape).

Checking the foil print order

Before outputting the job to a vinyl printer, it is important to check the print order of the job. The vinyl printer prompts for foil colors in the order they appear in the Print Order list.

Why is checking the Print Order important?

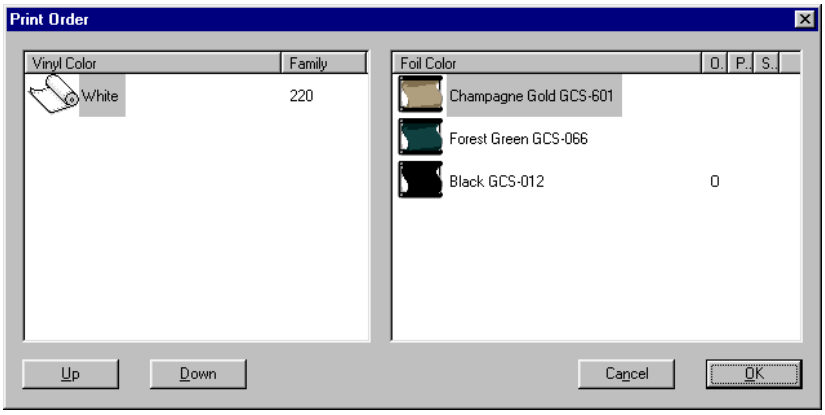
If one shape is supposed to print on top of another color, but the vinyl printer asks for the top shape foil color first, the printed output will not be correct.

For example, the boat in the current job is an overprinted shape, which means the background will be printed in full. If the Black foil prints first and then the Champagne Gold, the boat will be covered over with the Gold foil.

Note: When rearranging foil print order, place them in order from light to dark and the Overlapped/Overprinted shapes should print last.

The following procedure demonstrates how to use the dialog box, but is not necessary for this design.

1. Click Arrange > Print Order. The Print Order dialog box opens.

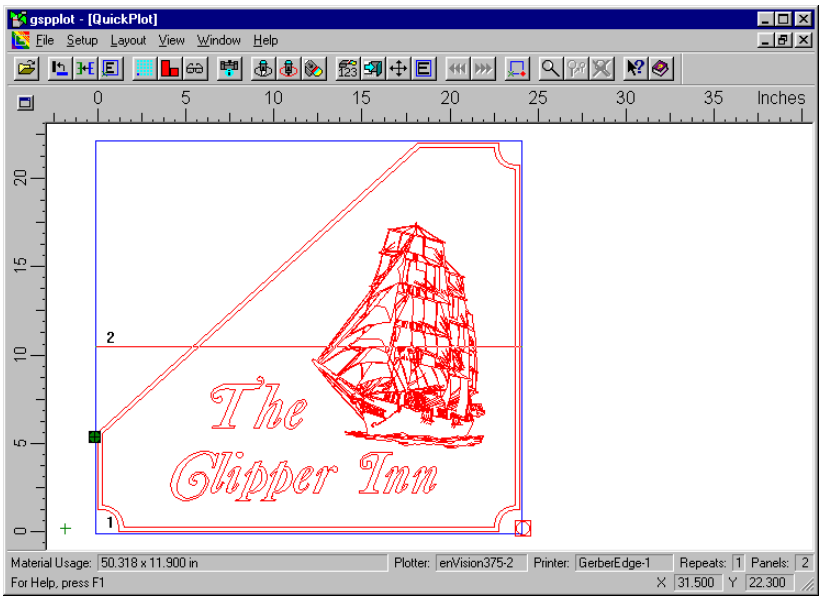


For this example, it is important that the Black foil prints last. This is because the Black shapes are assigned an Overprint. If we needed to move the Black foil we would:

1. Choose the Black foil from the Foil Color list by clicking on it.
2. Click Down until the Black foil moves to the end of the Foil Color list.
3. Click OK.

Outputting to a vinyl printer and plotter

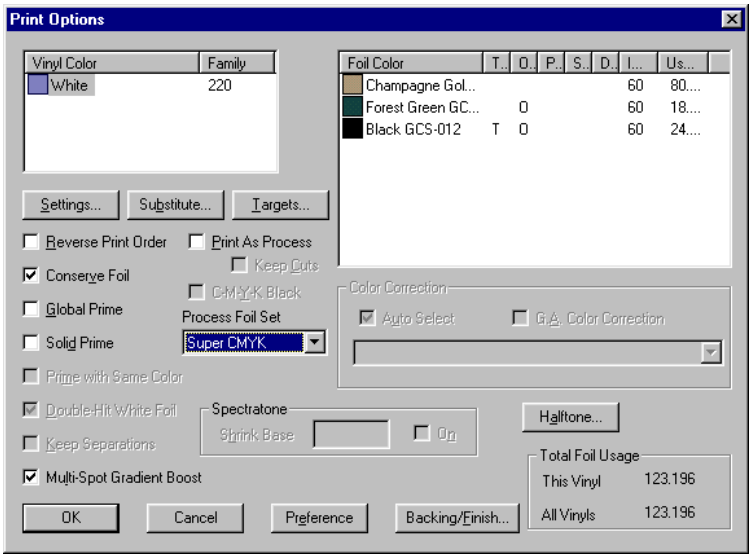
1. Click File > Output All. The GSPPlot window opens.



Changing the vinyl family

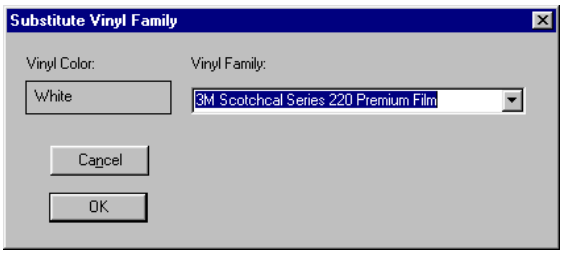
1. Click the Print Options button on the toolbar. The Print Options dialog box opens.

Foil Print Order: You can change the foil print order in the Print Options dialog box by clicking and dragging a foil into place in the Foil Color list.



2 Click the Substitute button. The Substitute dialog box opens.

3 Click Vinyl. The Substitute Vinyl Family dialog box opens.



4 Click the Vinyl Family list down arrow.

5 Scroll through the list and click 3M Scotchcal Series 225 Premium Film.

6 Click OK to return to the Print Options dialog box.

Note: It is important that the vinyl family reflects the material you will be printing on. Poor print quality may result from mismatched vinyls.

Note: You can also substitute a foil by choosing the Foil button in the Substitute dialog box. If the intended foil supply is getting low you can replace it with a foil that closely matches the original color. It is important to substitute the foil in GSPPlot (rather than just substituting it at the printer) to ensure good print quality.

7 Click OK to return to the GSPPlot window.

Sending the job to the vinyl printer and plotter

Quick instructions

Send the job to the printer and plotter.

Detailed instructions

1 Click the Print to Device button on the toolbar. The job is sent to the default printer.

Note: When using an EDGE 2 use these guidelines for setting the Print Mode in the Plotter/Printer Select dialog box:
EDGE 1 setting is to be used when you want to match existing EDGE 1 jobs
300 x 300 is for highest speed with better resolution than EDGE 1
600 x 300 is for small text, thin lines, and fades

2 Refer to the vinyl printer Owner's Manual for printing instructions.

3 Click the Cut/Plot button on the toolbar to send the job to the default plotter.

4 Refer to the plotter Owner's Manual for plotting instructions.

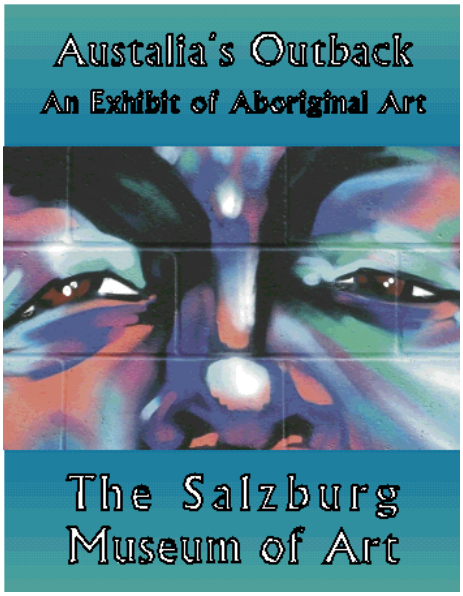
Registration solutions

Functions	What it Does	Things to Remember
Overlap/ Overprint	Prints complete bottom shapes, then prints top shape on top leaving no gaps for possible registration issues. Does not create a new shape in Composer.	Works best when top color is dark (especially black). Use Overprint when more than 50% of the shape is overlapped.
Choke/Spread	Allows you to fill registration gaps that may occur when printing two adjacent colors in a design. Prints bottom shape past top shape. Automatically assigns overlap to top shape.	All selected objects must have one of only two fills. Once you select Choke/Spread, cuts are turned off. You must turn cuts back on for any objects you want to cut.
Stroke	Stroke adds thickness to the outline of a shape by assigning it foil color and other attributes. Strokes are normally assigned to print shapes with cuts turned off because they are applied directly over the cutline. However, strokes can be used with cut shapes, especially to create bleed or trap effects.	To solve registration issues using stroke, remember to select behind fill and assign an overlap/print.

Functions	What it Does	Things to Remember
Bleed	Expands the print area of a shape past the cut area to ensure proper registration when cutting a printed graphic.	The shape(s) selected for the bleed must be print and cut objects.
CMYK Black	Use all four process colors to make black, rather than just using Black foil. Eliminates registration issues between black shapes and other filled shapes.	Can only be used when printing as process. Does not work with spot colors.

This completes Lesson 23. Please continue with the next chapter.

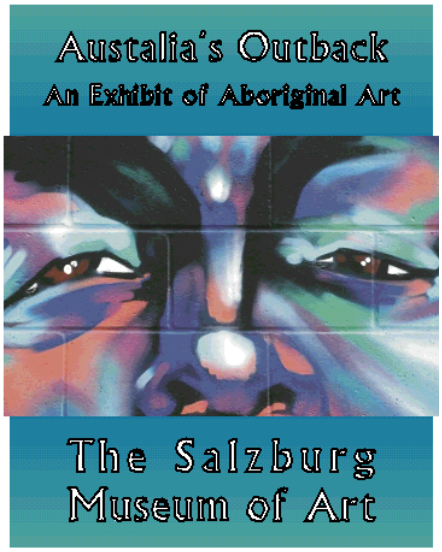
Chapter 12:
Working with Images and Process Colors



This chapter covers all the tools needed to color and properly print the above sign. The techniques you will learn:

- Coloring an image
- Assigning process colors
- Multiple color gradient fills
- Ensuring process color registration
- Assigning and editing Halftones
- Paneling oversized jobs
- Working with spool files

Lesson 24:
Coloring images and shapes with process colors



In this lesson you will create the above sign using the following new techniques:

- Coloring an image
- Assigning process color to a shape
- Multiple color gradient fill
- Using Clear fills
- Creating Strokes
- Assigning and editing halftones
- Ensuring print-to-print process color registration

For more information on using these features refer to OMEGA Help.

Opening an image file

Quick instructions

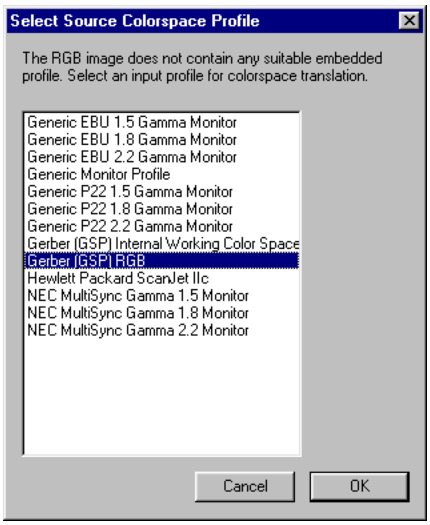
Open the image file C:\Jobs\Learning\Salzburg.tif using the Gerber (GSP) RGB Image Source profile.

Detailed instructions

1. Click File > Open.
2. Click the File type drop down list, and change the file type to TIF.
3. Click C:\Jobs\Learning folder and select the Salzburg.tif file.
4. Click Open.

Note: Depending on your system, the file may take a while to open.

5 If you have selected Always Ask in the RGB Image Source Profile box of the Color Management dialog box, the Select Source Colorspace Profile dialog box opens. (This dialog box does not display if you have selected an RGB Image Source Profile to use as the default setting.)



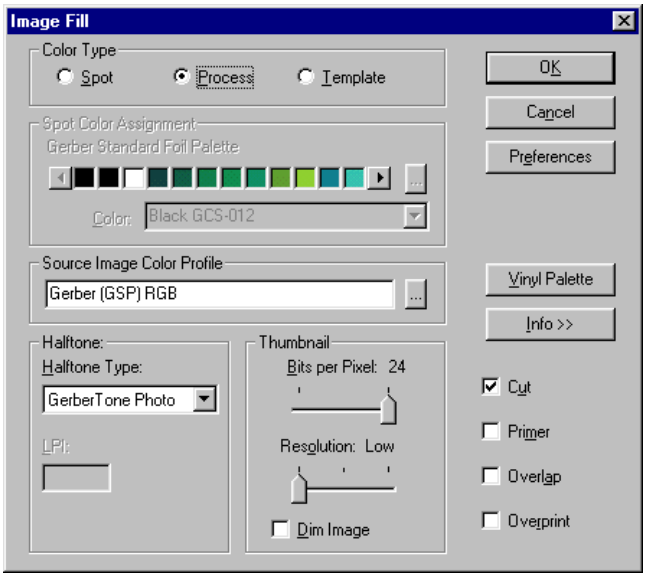
6 If the Select Source Colorspace Profile dialog box appears, choose Gerber (GSP) RGB. Click OK.

7 Click the Zoom to All to view the image.

Coloring an image

1 Select the image with the Selection tool.

2 Click the Image Fill tool on the Main toolbar. The Image Fill dialog box opens.



3 Choose Process in the Color Type box.

4 Click OK.

> **Tip:** Thumbnail Resolution and Bits per Pixel affects how images display on your monitor and print on paper. The Thumbnail setting does not affect how images output to a vinyl printer. 24 Bits per Pixel and Low Resolution provides accurate color results and faster on-screen drawing. This setting produces a medium file size.
>
> If when designing the computer response time seems too slow, reduce the Thumbnail Bits per Pixel and Resolution to the lowest settings. This changes the on-screen or paper printed image, but does not effect the image when output to a vinyl printer.

Creating a box and sizing the image

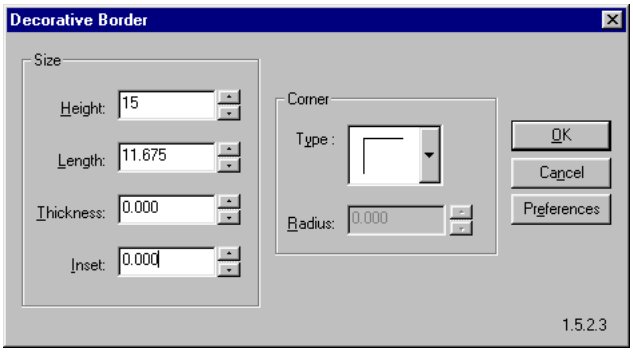
Quick instructions

Create a box that has a height of **15"** (38.10 cm) and a length of **11.675"** (29.65 cm). Size the image to a height of **8.5"** (21.59 cm).

Detailed instructions

1 Click the Border tool from the Construction fly-out toolbar.

2 Click and drag a border. The Decorative Border dialog box opens.



3 Enter **15"** (38.10 cm) in the Height text box.

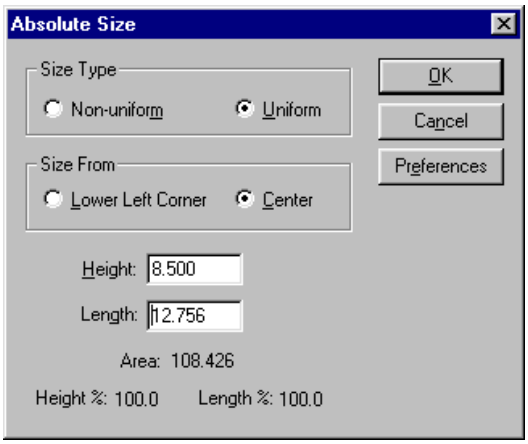
4 Enter **11.675"** (29.65 cm) in the Length text box.

5 Click OK.

6 Click Zoom to All.

7 Select the image with the Selection tool.

8 Click Shape > Absolute Size. The Absolute Size dialog box opens.



9 Choose Uniform from the Size Type box.

10 Enter a height of **8.5"** (21.59 cm).

11 Click OK.

Cropping an image

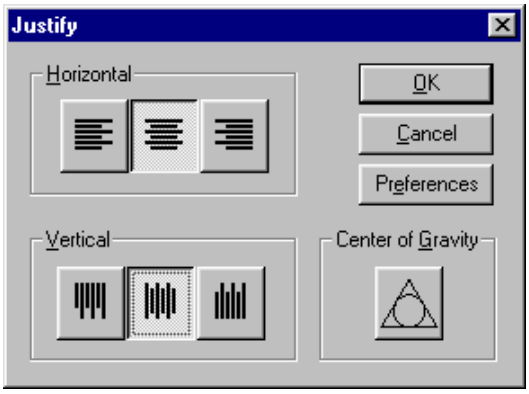
Quick instructions

Center and Middle justify the entire design. Crop the image as shown in the illustration. (Leave the sides of the image slightly larger than the box to ensure print-to-cut registration.)

Detailed instructions

1 Click Select > All (Ctrl+A or F2).

2 Click Arrange > Justify. The Justify dialog box opens.



3 Choose Middle and Center justify buttons (Shortcut key 7).

4 Click OK.

5 Click Zoom to All.

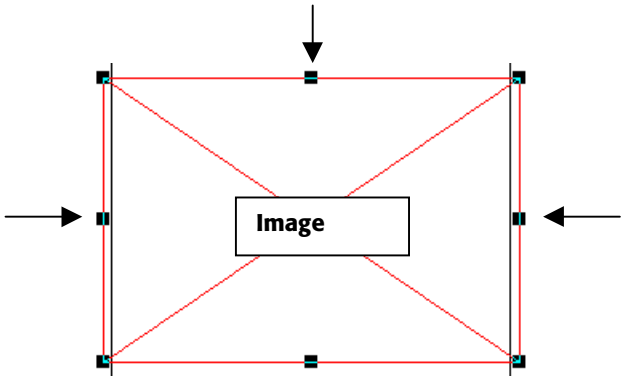
6 Deselect the box by clicking on an empty area of the work surface.

7 Click the lower right triangle of the Image Fill tool to display the Image fly-out toolbar.

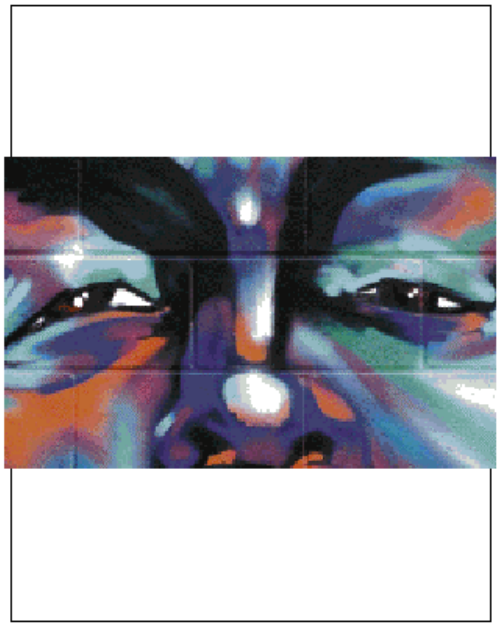
8 Click the Crop Image tool. The pointer becomes a pair of scissors.

9 Position the Crop Image tool over one of the side handles.

Cropping: Cropping allows you to expose as much of the image as you want. Dragging a handle towards the center of an image hides the unwanted portion.



10 Click and drag in toward the center of the image.



11 Crop the three sides of the image so it appears as illustrated above. Keep the sides of the image slightly larger than the box. This ensures print-to-cut registration.

12 Click Select > All (Ctrl+A or F2).

13 Click Arrange > Justify. The Justify dialog box opens.

14 Choose Middle and Center justify buttons (Shortcut key 7).

15 Click OK.

Adding text

Quick instructions

Create the text using the font Albertus. Change the letter height to **0.8"** (2.03 cm) for **Australia's Outback:**, **0.55"** (1.4 cm) for **An Exhibit of Aboriginal Art**, and **0.9"** (2.05 cm) for **The Salzburg Art Museum**. Character space the last two lines of text according to the design.

Detailed instructions

1 Click the TOWS tool. The text toolbar opens.

2 Choose Albertus from the Select Font drop-down list.

3 Enter **0.8"** (2.03 cm) in the Letter Height text box.

4 Click on an empty area of the work surface away from the image.

5 Type **Australia's Outback**. Press Enter.

6 Enter **0.55"** (1.4 cm) in the Letter Height text box. Press Enter.

7 Type **An Exhibit of Aboriginal Art**.

8 Click the TOWS tool on an empty area of the work surface in the lower part of the screen.

9 Enter **0.9"** (2.05 cm) in the Letter Height text box. Press Enter.

10 Type **The Salzburg**. Press Enter.

11 Type **Museum of Art**.

12 Press the up arrow on the keyboard to position the flashing cursor on **The Salzburg**.

13 Click the Character Spacing tool. Drag the text to equal the line **Museum of Art**.

14 Click the Character Spacing tool again to turn it off.

15 Click Zoom to All.

Moving and justifying text

Quick instructions

Move and justify the text as it appears in the following illustrations.

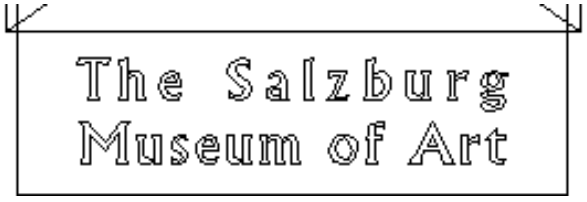
Detailed instructions

1 Select the two top lines of text with the Selection tool.

2 Click and drag the text to the top of the box. Position it so the text appears centered.

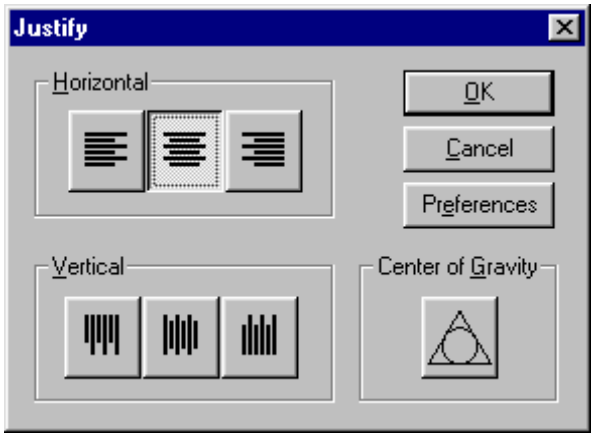
3 Select the last two lines of text with the Selection tool.

4 Click and drag the text to the bottom of the box. Position it so the text appears centered.



5 Hold down the Shift key, select the top two lines of text, the bottom two lines of text, and then the box.

6 Click Arrange > Justify. The Justify dialog box opens.



7 Choose Horizontal Center justify (shortcut key 2).

8 Click OK.

Assigning a spot color gradient fill to an object

Quick instructions

Fill the box with a Spot Linear gradient fill at a Linear Angle of **90**. The linear fill that is comprised of two Spot foil colors: slider color stop positions 0 and 100 are Dark Green at 100% tint and slider color stop position 50 is Royal Reflex at 100%.

Detailed instructions

1 Select the box with the Selection tool.

2 Click the Fill tool from the Main toolbar. The Assign Color dialog box opens.

3 Choose Gradient in the Fill Type box and choose Linear from the list.

4 Choose Spot in the Color Type box.

5 Enter **90°** in Linear Angle.

6 In the Color box, choose Dark Green.

7 Double-click the right end box on the position slider to obtain a new color stop triangle.

8 Drag the color stop to the 50 position or enter **50** in Position.

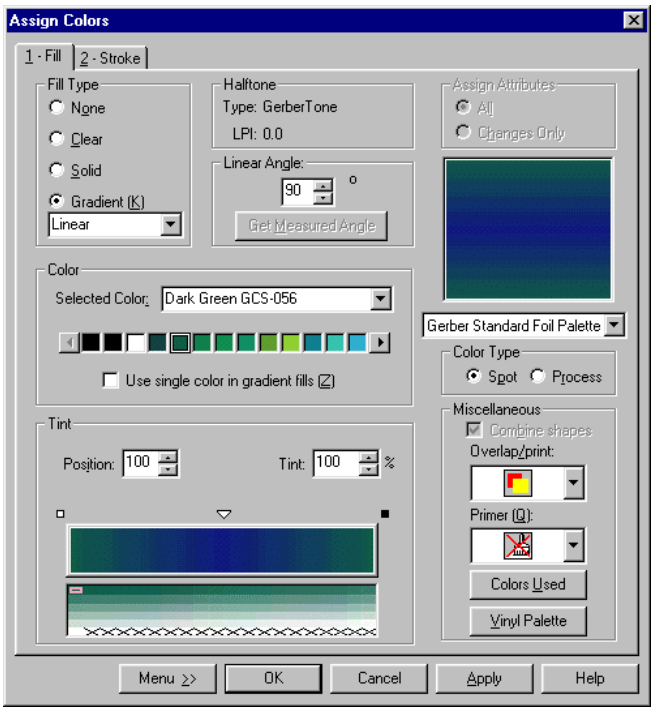
9 Enter **100** in Tint %.

10 Choose Royal Reflex to assign that foil to the active color stop.

11 Click the right end box once to make it active (black).

12 Enter 100 in Tint %.

13 Choose Dark Green to assign that foil to the active color stop. The gradient should now be Dark Green to Royal Reflex to Dark Green.



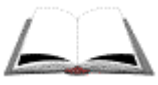
14 Click OK to apply the gradient fill to the box.

> **Tip:** You can create linear and radial gradient fills using multiple Gerber spot colors. You can specify solids or tints of the spot colors within the gradient fill.

Assigning process color gradient fill to an object

Quick instructions

Smart edit the box with the Linear spot color fill and convert the Spot gradient fill to a Process (CMYK) gradient fill that is comprised of two Process colors: slider color stop positions 0 and 100 are 75:0:52:0 and slider color stop position 50 is 100:65:0:35.



Detailed instructions

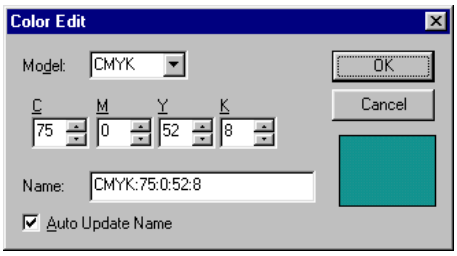
1 Smart edit the gradient box to reopen the Assign Color dialog box.

2 Choose Gradient in the Fill Type box and choose Linear from the list.

3 Choose Process in the Color Type box.

4 Click the left end box on the position slider (position 0) to make it the active color stop. The color stop displays as a black box.

5 Click the Edit button from the Color box. The Color Edit dialog box opens. The CMYK equivalent of Dark Green spot foil displays. Enter the following new CMYK settings:



- **75** in the "C" for Cyan text box.
- **0** in the "M" for Magenta text box.
- **52** in the "Y" for Yellow text box.
- **8** in the "K" for Black text box.

6 Click OK to return to the Assign Fill dialog box.

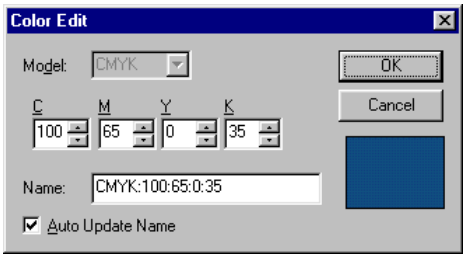
7 Click the right end box on the position slider to make it the active color stop. The color stop displays as a black box.

8 Click the Edit button from the Color box. The Color Edit dialog box opens. The CMYK equivalent of Dark Green spot foil displays. Enter the same CMYK settings as shown above in step 5.

9 Click OK to return to the Assign Fill dialog box.

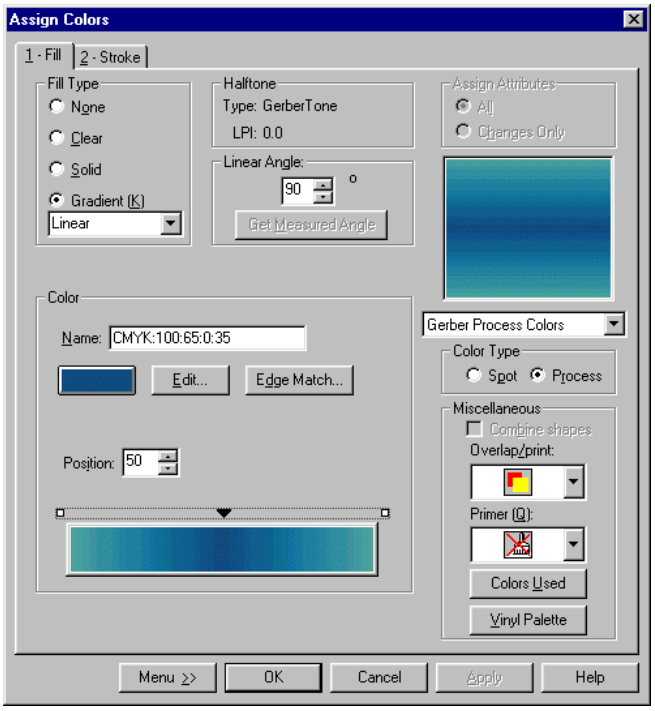
10 Click the middle color stop (position 50) to make it active. The color stop displays as a black triangle.

11 Click Edit to open the Color Edit dialog box. The CMYK equivalent of Royal Reflex spot foil displays. Enter the following new CMYK settings:



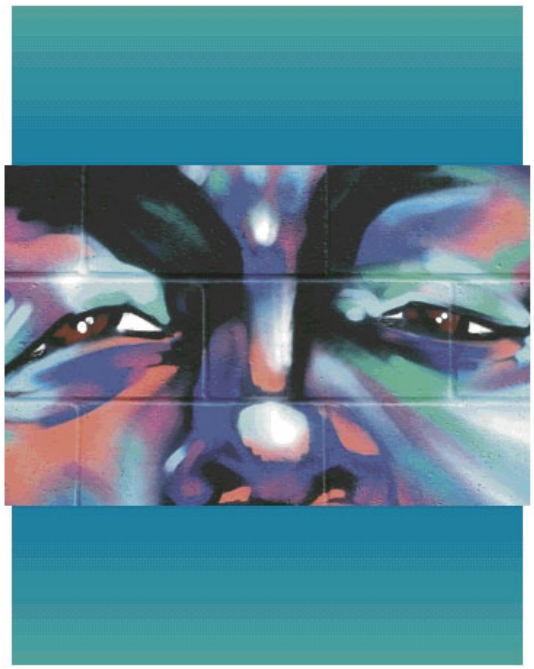
- **100** in the "C" for Cyan text box.
- **65** in the "M" for Magenta text box.
- **0** in the "Y" for Yellow text box.
- **35** in the "K" for Black text box.

12 Click OK to return to the Assign Colors dialog box.



13 Click OK to apply the fill and return to Composer.

14 Click View > Filled (F8) to see the gradient fill in the sign. Click Arrange > To Front or Arrange > To Back if the job is not layered properly.



Choosing a halftone type and LPI

Halftones are various dot patterns. The dot patterns for Process fills are made of Cyan, Magenta, Yellow, and Black foil overlapped to create different colors. There are many different halftone types. When you set the LPI (lines per inch), you are determining the size of the dot. The lower LPIs produce larger dots. Higher LPIs produce smaller dots. The following chart describes the characteristics of higher and lower LPI settings.

Higher LPI	Lower LPI
Smaller dots	Larger dots
Sharper image	Coarser image
Lower number of colors	More colors available
Too high produces blotchy images	Too low produces coarser images
Too high produces banding	More texture
Less graduated, transitions striped	More graduated colors

OMEGA includes a sample chart of halftones. The CMYK values are the same for each sample, but different halftone types and LPIs are used. The chart is a good example of how halftones can change the appearance of a fill.

Printing the halftone chart

1. Click Start > Programs > GSP OMEGA > GSPPlot to open GSPPlot.
2. Click File > Open to display the Open dialog box.
3. Browse to C:\Jobs\Samples\Halftone.PLT and open the file.
4. Click File > Print to Device (F10) to send the job to the selected thermal printer.

> **Tip:** For more information on halftones, see OMEGA Help. Additional information is available on the FastFacts system. *FastFacts #3086 Choosing the Best Halftone* or *FastFacts #3005 LPI Settings to use with Process Color Classical Halftone* can be downloaded from www.gspinc.com, or by calling 800-222-7446 and following the prompts.

Assigning a halftone

Quick instructions

Confirm that GerberTone halftone is assigned to the box with the gradient fill. Assign GerberTone STC Photo halftone at 60 LPI to the imported image.

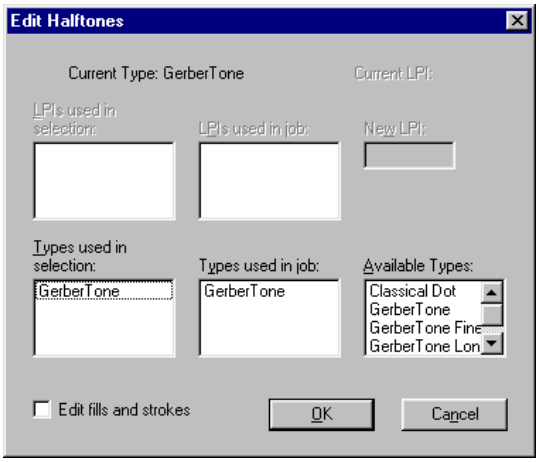
Detailed instructions

1 In Composer, smart edit the box with the linear fill to return to the Assign Colors dialog box.

GerberTone Halftone: Provides superior results when blending fades. An LPI of 42.4 is built into the halftone and cannot be changed.

2 Click the Menu button. A menu options list appears.

3 Click Halftone. The Edit Halftones dialog box opens.



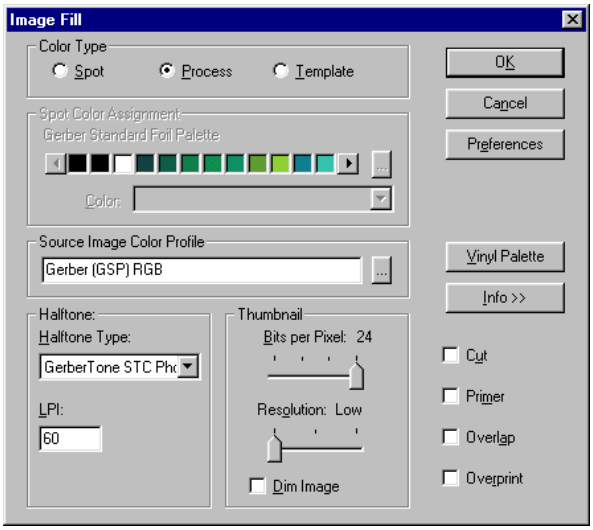
4 Confirm that GerberTone is the halftone type used in the selection. You can not enter an LPI for GerberTone halftone.

5 Click OK to return to the Assign Fill dialog box.

6 Click OK to return to Composer.

GerberTone STC Photo Halftone: Available only for images. It provides a wide color range at variable LPI. When used with the EDGE use 60-70 LPI. When used with the MAXX 2 use 4-35 LPI.

7 Smart edit the imported image to return to the Image Fill dialog box.



8 In Halftone Type, choose GerberTone STC Photo. (The LPI box displays.)

9 Enter **60** in the LPI box.

10 Click OK to return to Composer.

Note: When you assign a halftone the appearance of the fill in the sample box or on the Composer work surface does not change. You will not see the effect of the halftone until you print it. Consider sending a sample to the printer using File > Output Selected. See the Help topic: "Outputting selected objects to GSPPlot".

Assigning a clear fill

Quick instructions

Select all the text and assign it a Clear fill. Use Apply to assign the fill without leaving the Assign Colors dialog box.

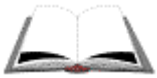
Detailed instructions

1. Holding down the Shift key, select each line of text using the Selection tool.
2. Click the Fill tool from the Main toolbar. The Assign Color dialog box opens.
3. Choose Clear from the Fill Type box.
4. Click Apply. Do not close the Assign Colors dialog box.

Assigning a stroke

Quick instructions

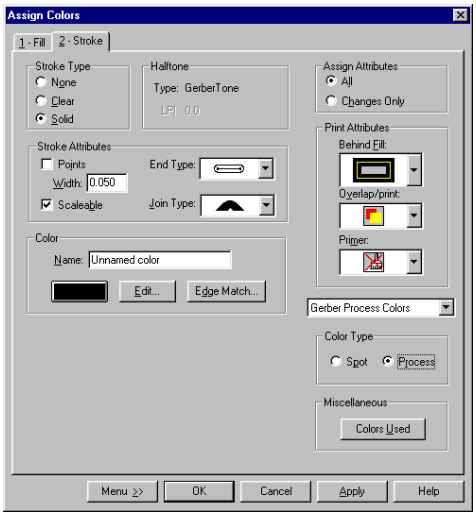
Assign a Solid stroke to all text. Use Process Black at a width of **0.035"** (8.9 cm).



Detailed instructions

Note: If you have returned to Composer, click the Stroke tool from the Toolbox toolbar to open the Assign Colors dialog box.

1. Click the Stroke tab of the Assign Colors dialog box.



2 Choose Solid from the Stroke Type box.

3 Choose Process from the Color Type box.

4 Click the Edit button. The Edit Color dialog box opens.

5 Enter **100** in the K (Black) box.

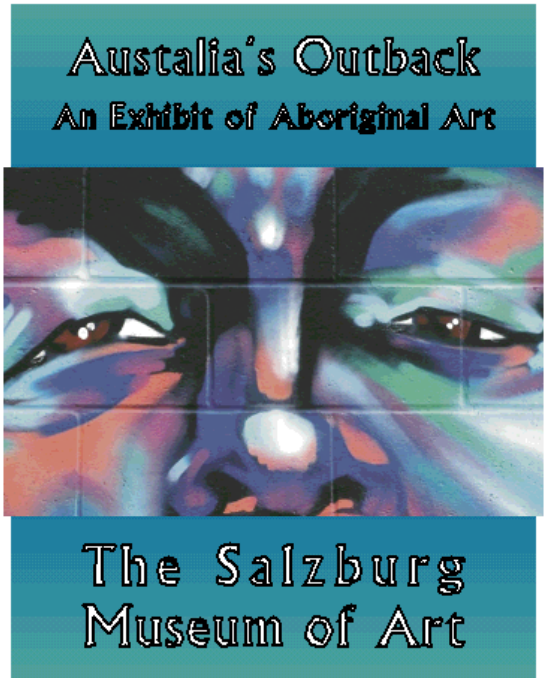
> **Tip:** When Black is not present in the process color fill of the original shape, enter percentages in Cyan, Magenta, Yellow, and Black so color continues from the shape fill to the Stroke without a break.

6 Click OK to return to the Assign Colors dialog box.

7 Enter **0.035"** (8.9 cm) in the Width text box.

8 Click OK to return to Composer.

9 Click View > Filled to turn on Filled mode.



Assigning cutlines

Quick instructions

Turn cuts off of all shapes except the box. Preview the job.

Detailed instructions

1 Click Select > All.

2 Click the Selection tool. Hold down the Shift key and click the rectangle, not the image, to deselect it.

3 Click Arrange > Cuts Off.

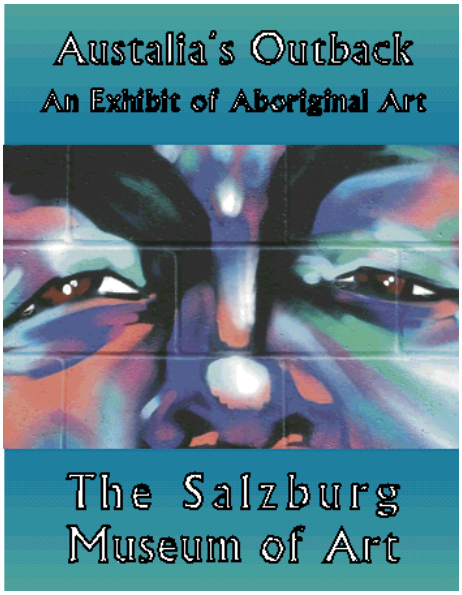
4 Click View > Filled to preview the job.

Moving shapes

With everything but the rectangle selected, click Arrange > To Front.

This completes Lesson 24. Please continue with the next lesson.

Lesson 25:
Working with over-sized jobs



In this lesson you will create the above sign using the following new techniques:

- Resizing a job
- Rotating a job 90°
- Modifying panel lines
- Outputting panels

For more information on using these features refer to OMEGA Help.

Resizing the sign

Quick instructions

Group the sign and resize it to **30"** (76.2 cm) high using Uniform sizing. Output the resized sign to GSPPlot.

Detailed instructions

1. Click Select > Select all (Ctrl+A or F2).
2. Click Arrange > Group.
3. Click Shape > Absolute Size to open the Absolute Size dialog box. Turn on Uniform and enter **30"** in Height. Click OK to return to Composer.
4. Click File > Output All to send the file to GSPPlot.

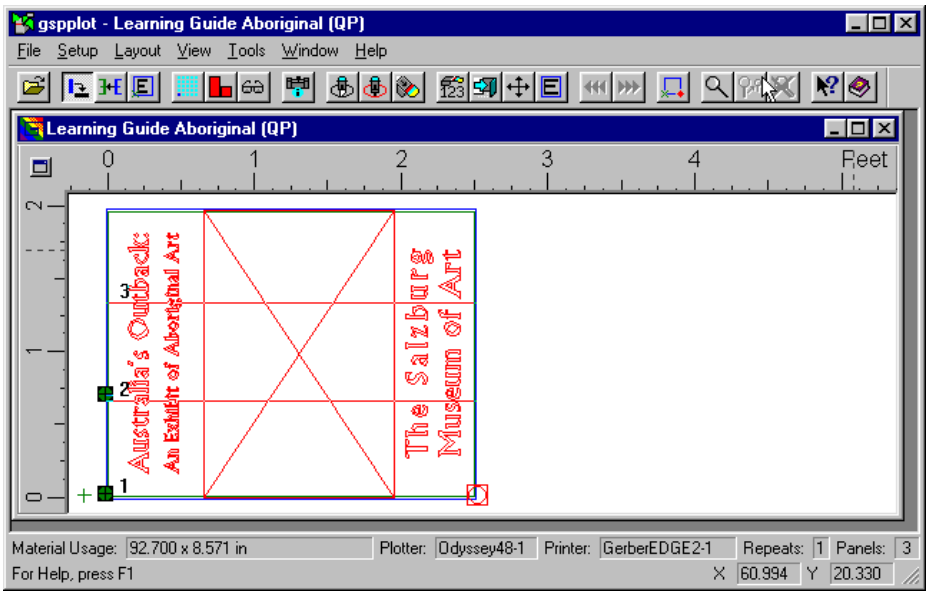
Setting up panels

Quick instructions

Axis swap the job. Drag the panel lines to create panels that are approximately equal in size. Prepare panels for printing by turning on Flip Panels and Output Each Panel as a Separate Job.

Detailed instructions

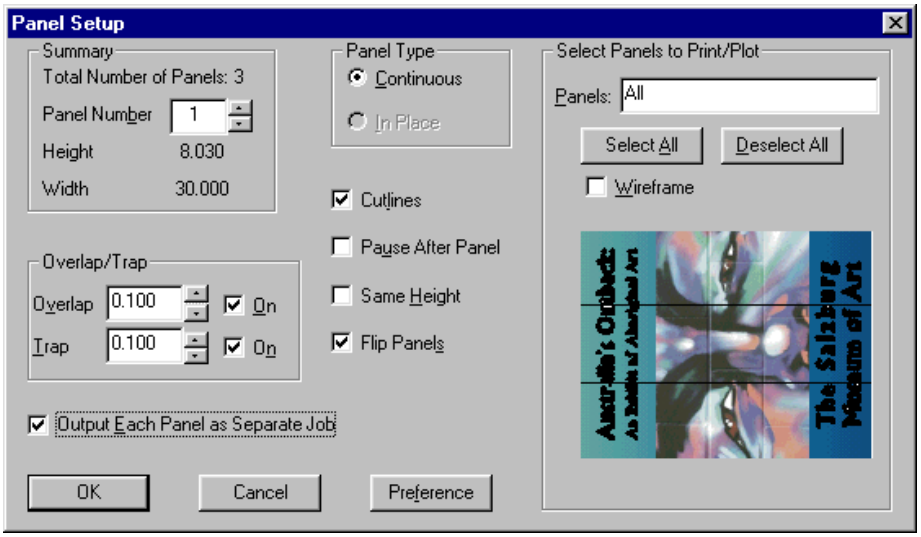
1 Click Axis Swap to rotate the job 90°.



2 Click and drag panel line 3 into position between the words of and Art.

3 Click and drag panel line 2 into position between the words The and Salzburg.

4 Click the Panels button to open the Panel Setup dialog box.



5 Turn on Flip Panels to output every other horizontal panel in a multi-panel job upside-down. This provides a closer match between panels because it compensates for variations in color density across foils.

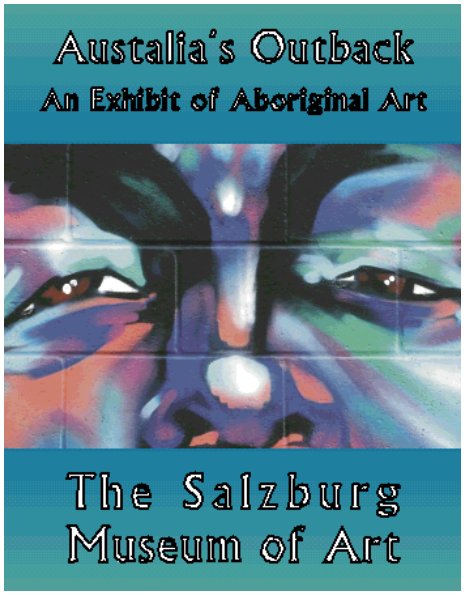
6 Turn on Output Each Panel as a Separate Job to improve cutting accuracy by providing registration targets for each panel.

> **Tip:** To deselect panels so that they will not output, click the panels in the preview box. Only the panels that display in the box and are listed in the Select Panels to Print/Plot box will be output.

7 Click OK to return to GSPPlot.

This completes Lesson 25. Please continue with the next lesson.

Lesson 26:
Printing and cutting spool files



In this lesson you will output the design you created using the following techniques:

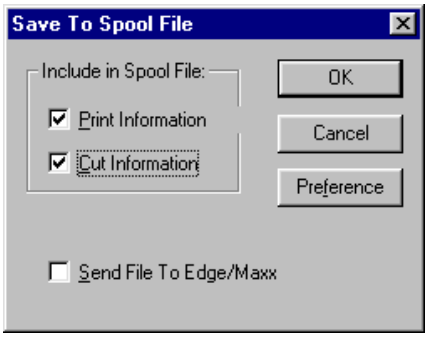
- Saving a spool file
- Printing and cutting a spool file

For more information on using these features refer to OMEGA Help.

Saving a spool file

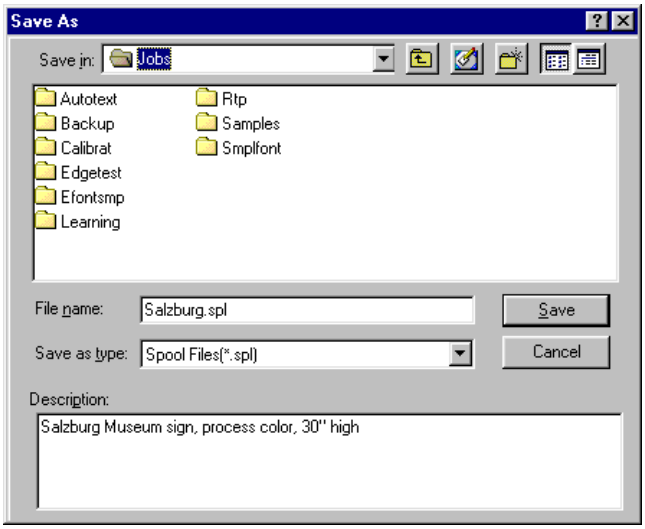
Spool File: A file that contains all the information for printing and plotting. Images do not need to be rendered after the initial process. Spool files cannot be altered in any way.

1 Click File > Save to Spool File. The Save to Spool File dialog box opens.



2 Turn on the Print Information and Cut Information checkboxes.

3 Click OK. The Save As dialog box opens.



4 Enter the following text in the Description box: **Salzburg Museum sign, process color, 30" high (76.2 cm).**

> **Tip:** Since you cannot open a spool file to see the job, it is helpful to give it a description when you save it.

5 Type the name, Salzburg.spl in the File Name text box.

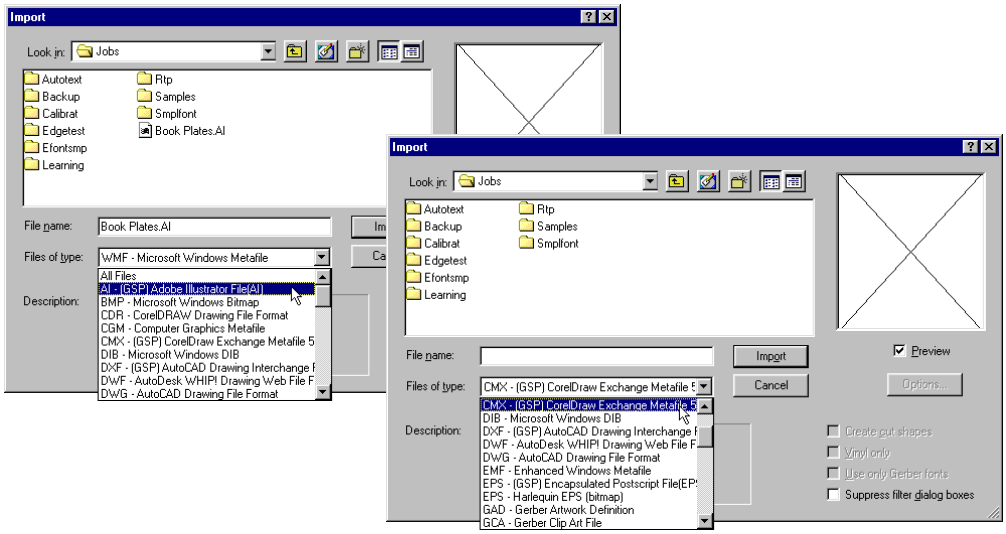
6 Click Save. The job is processed. This may take a while.

Printing or cutting a spool file

To print or cut the spool file, click File > Print Existing Spool File or File > Cut Existing Spool File.

This completes Lesson 26. Please continue with the next chapter.

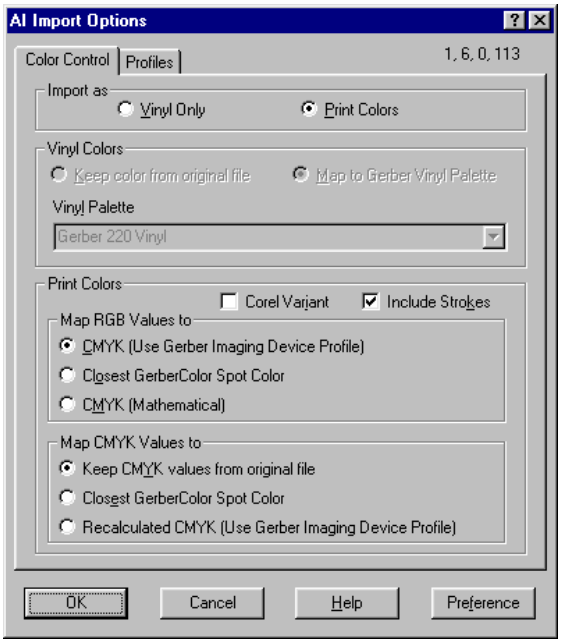
Chapter 13:
Importing files for vinyl printing



This chapter covers all the tools needed to successfully import Adobe Illustrator® – AI or CorelDRAW® – CMX files into OMEGA for vinyl printing or vinyl cutting. The techniques you will learn:

- Choosing the best file format
- Converting RGB and CMYK colors
- Importing TIF files

Lesson 27:
Importing files for vinyl printing



In this lesson you will learn how to successfully import an AI Adobe Illustrator file for vinyl printing using the following new techniques:

- Choosing the best file format
- Converting RGB and CMYK colors

For more information on using these features refer to OMEGA Help.

Importing an AI file (or CMX file) for vinyl printing

Import vs. Open: Import and Open use the same filters. Open places the file in a new Composer screen. Import places the file in the current Composer job.

In this procedure you will import an AI file using the AI–GSP Adobe Illustrator File (AI) filter. You can follow the same procedure using a CMX 5/6 file using the CMX–(GSP) CorelDRAW Exchange Metafile 5/6 filter. The Import Options dialog boxes have the settings.

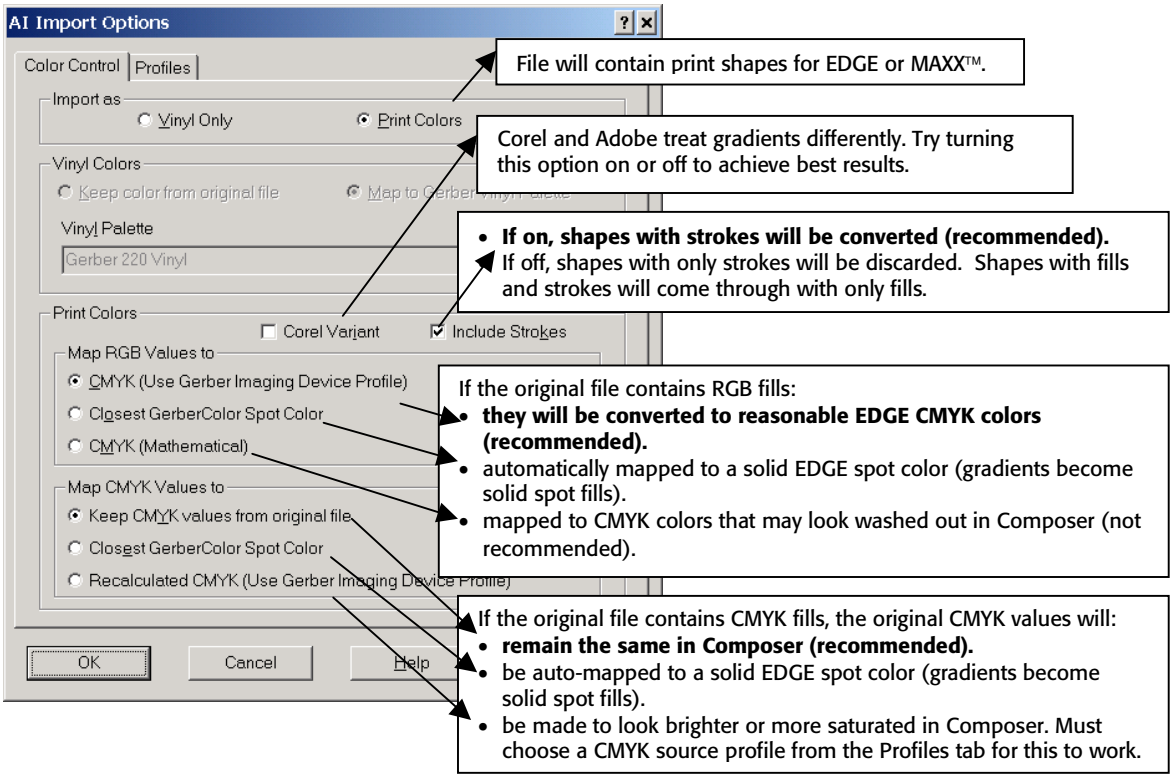
1. From Composer, click File > Open to open the Open dialog box.
2. In File Type, choose AI–GSP Adobe Illustrator File (AI).

Note: When saving a file in Adobe Illustrator, save it as AI 7.0 or 8.0. (AI 9 and higher will not work.) These file types convert most easily. When saving a CorelDRAW file, save it as a CMX 5.0/6.0 for best results. Also, it is best to convert all objects and text to curves when importing.

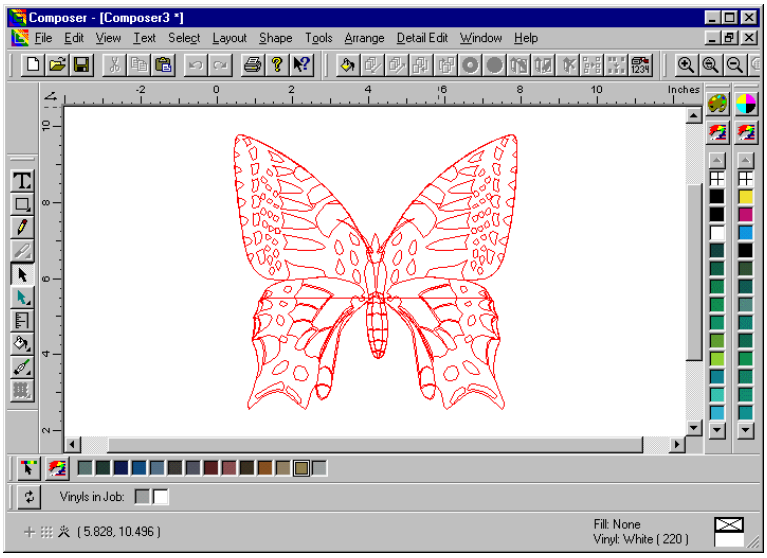
3. Navigate to C:\Jobs\Learning\Butfly.ai.

4 Click OK.

5 Choose Print Colors and use the following illustration as a guide when setting other options.



6 Click OK to import the file. Note that all the lines view as red (print only shapes) in Wireframe mode.



Troubleshooting importing for vinyl printing

If you cannot successfully import a vector file for printing, try the following:

- Turn on Corel Variant to properly assign colors.
- Convert all objects and text to curves before saving the vector file.
- If using CorelDRAW, open the original file and save/export the job as a CMX file instead of an AI file. Re-import the CMX into Composer using the settings shown in the previous illustration.

OR

- Save the file to an older version of Adobe Illustrator such as version 6.3, or even 1.1. Re-import into Composer using the settings shown in the previous illustration.

OR

- Export the job from the original design program (such as CorelDRAW or Adobe Illustrator) as a TIF file, and then open it in Composer. See the next section for instructions on saving as a TIF file.

Exporting a file as a TIF from CorelDRAW or Adobe Illustrator

1. Open the original job in CorelDRAW or Adobe Illustrator.
2. Size the job to its intended output size in CorelDRAW or Adobe Illustrator.
3. Go to the File Menu and Export as an RGB TIF. Use 100 dpi as the export resolution. Turn on LZW compression. If asked, embed the color profile. The file size may be large.
4. Import the TIF file into OMEGA. The size should be the same as in the original design program.
5. Print through GSPPlot.

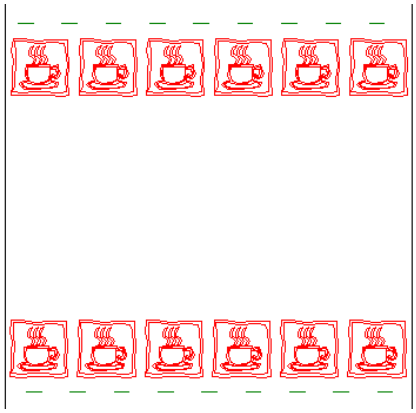
This completes Lesson 27. Please continue with the next chapter.

Chapter 14:
Using Advanced EDGE® Design Techniques

This lesson covers all the tools needed to create the above table tent card. The techniques you will learn in this lesson are as follows:

- Small Text
- Import/Export Images
- Halftones
- PANTONE® Colors
- GerberColor Spectratone™

Lesson 28:
Working with clip art



In this lesson you will import clip art, fill it with color, and use it to create a border using the following techniques:

- Importing clip art as vinyl shapes
- Filling imported shapes with color
- Using Repeats to create a border

For more information on using these features refer to OMEGA Help.

Importing and filling clip art

Quick instructions

Open the file, PVC Tent Template.plt located in C:\Jobs\Learning folder. Import the clip art file, C:\Jobs\Learning\coffee cup.wmf as a Vinyl Only image. You can also download these files from the Gerber web site: www.gspinc.com\ Customer Corner\ Literature\Educational Literature\Download OMEGA 2.X Learning Guide Images. After downloading, double click LGImages.exe and copy the images to C:\Jobs\Learning folder.

Place the imported coffee cup image on PlastiGraphix PVC-10. Fill the coffee cup image with the following Spot Color foils:

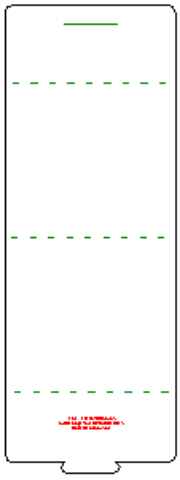
- Color the outside shape with Black
- Color the inside shape with Clear
- Color the smoke with Light Grey
- Color the outside of the coffee cup with Transparent Sapphire Blue
- Color the inside of the coffee cup with Clear

Detailed instructions

1 Click File > Open.

2 Locate the following file in C:Jobs\Learning folder: PVC Tent Template.plt.

3 Click Open. The image appears on the Composer work surface.



4 Click Select > All (F2 or Ctrl+A).

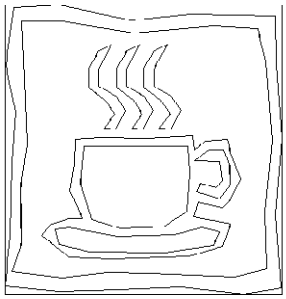
5 Click Arrange > Group.

6 Click File > Import. Turn off the Preview box.

7 Locate the following file: C:\Jobs\Learning folder: coffee cup.wmf.

8 Turn on Vinyl Only. Note that the Create Cut Shapes box becomes checked.

9 Click Import and the image of the coffee cup appears on the work surface.



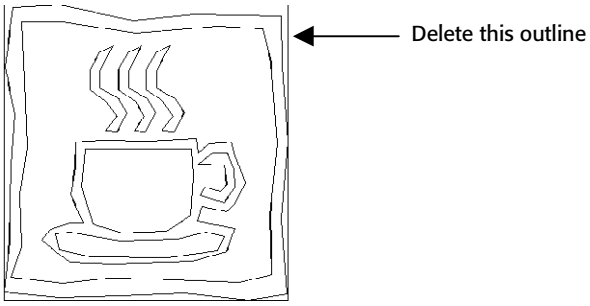
10 Click Select > All.

11 Click the Select Vinyl Palette button and choose EDGE PlastiGraphix PVC-10 and click OK. That palette displays along the bottom of the Composer work surface. Click the White (PLASGRA) swatch so that all objects are on that material.

12 Deselect the tent template so that only the clip art is selected.

13 Press the shortcut Ctrl+1 to remove any fills from the clip art.

14 Use the Selection (black) pointer to select the outside box on the coffee cup clip art.



15 Press Delete to remove the box.

16 Select the outside shape on the coffee cup clip art.

17 Click the Black Spot foil swatch from the Spot Foil Palette.

18 Repeat the procedure to fill the remaining shapes in the coffee cup clip art with the following Spot Foil colors:
- Color the inside shape with Clear
- Color the smoke with Light Grey
- Color the outside of the coffee cup with Transparent Sapphire Blue
- Color the inside of the coffee cup with Clear

19 Click View > Print Order – Design.

20 Click View > Filled (F8) to preview the shapes filled.

21 If necessary, use the Front and Back command in the Arrange menu (or on the Arrange toolbar) to reorder shapes.

Using Repeats to create a border

Quick instructions

Make all shapes of the coffee cup image print-only (turn Cuts Off). Resize the image to **0.6"** (1.52 cm) x **0.6"** (1.52 cm). Repeat the image **6** times in the X axis. Create a copy of the repeated border and position both borders as shown in the following illustration.

Detailed instructions

1 Select all the pieces of the coffee cup clip art.

2 Click Arrange > Cuts Off to make the shapes print-only.

> **Tip:** You can turn off cuts by clicking the Cuts Off button on the Arrange toolbar. If the Arrange toolbar is not visible, click View > Toolbars and turn on the Arrange toolbar.
>
>

3 Resize the clip art to **0.6"** (1.52 cm) x **0.6"** (1.52 cm) using Shape > Absolute Size (Non-uniform).

4 Zoom in on the clip art using the Zoom tool.

5 Select all of the coffee cup clip art shapes and click Arrange > Group.

6 Click Tools > Repeats/Merge to open the Repeats/Merge dialog box.

7 Enter **6** in the X Repeats box and click OK to repeat the clip art.

8 Click Zoom to All.

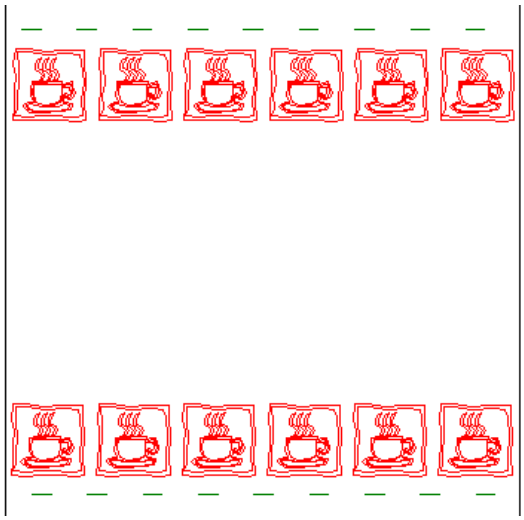
9 Select all of the clip art repeats and click Arrange > Group.

10 Position the clip art repeats just above the lowest dotted line on the tent template as shown in the following illustration.

11 With the clip art border still selected, right click and select Copy

12 Right click in the general area where you want to create another border and select Paste Here.

13 Move the pasted border just below the middle dotted line on the tent template as shown in the following illustration.



14 Save this file in your *My Lessons* folder.

This completes Lesson 28. Please continue with the next lesson.

Lesson 29:
Using Small Text

In this lesson you will create text for the above table tent card using the following techniques:

- Small Text tool
- TOWS tool
- Flipping text

For more information on these features refer OMEGA Help.

Creating Small Text

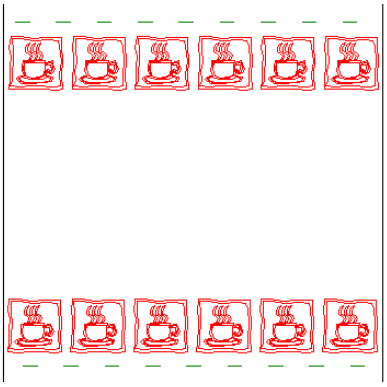
Quick instructions

Use Enter/Edit Small Text to create the four columns of text shown in the following table. The font is Arial Regular. The size is 10 point. There is a return between each line of text. Fill the text with Spot Black foil and turn Cuts Off.

Coffee	$1.00	Bagel	$ .85
Café Au Late	$2.75	Muffin	$1.05
Cappuccino	$2.25	Croissant	$ .95
Espresso	$2.15	Soup	$2.05
Hot Tea	$1.00	Sandwich	$3.25

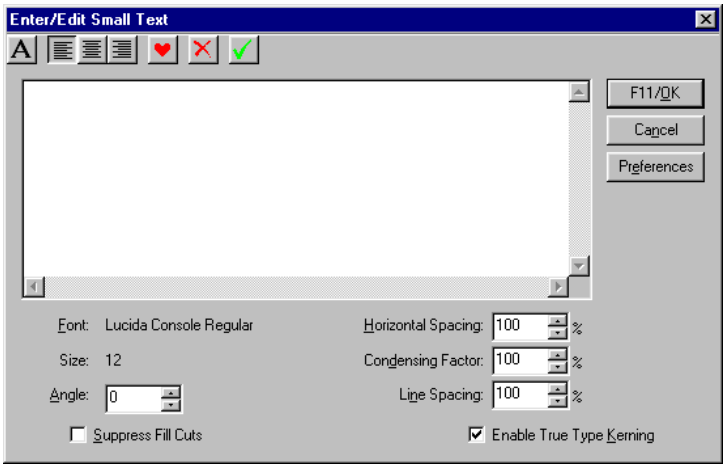
Detailed instructions

1 Use the Zoom tool to magnify the area around the borders that you just created.

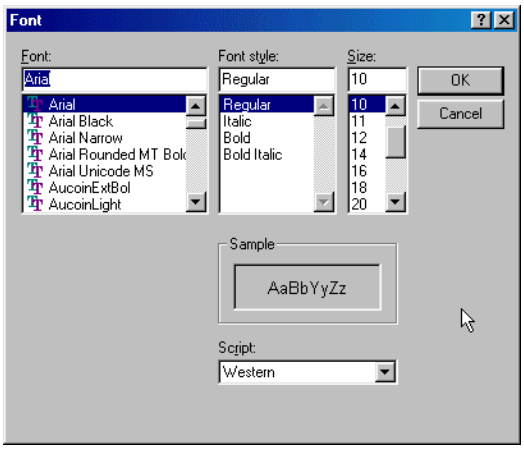


2 Click the Enter/Edit Small Text tool from the flyout Text toolbar.

3 Click on the work surface in the area between the borders where the text will be located. The Enter/Edit Small Text dialog box displays.



4 Click the Font button to open the Font dialog box. Select Arial Regular and 10 point for the Size.



5. Click OK to return to the Enter/Edit Small Text dialog box. Click Preferences and OK to save the settings.
6. Type the following list in the Small Text dialog box with a return between each line:
   Coffee
   Café Au Late
   Cappuccino
   Espresso
   Hot Tea

Note: To get the é in Café Au Late, hold the Alt Key while entering 0233 on the number keypad. (Num Lock must be turned on.) For more information, see "Using alternate characters" on page 127.

7. Click F11/OK to return to the Composer work surface.
8. Click the work surface with the Enter/Edit Small Text tool to open another Enter/Edit Small Text dialog box and type in the following using the same size and font with a return between each line:
   $1.00
   $2.75
   $2.25
   $2.15
   $1.00
9. Click F11/OK to return to the Composer work surface.
10. Click the work surface with the Enter/Edit Small Text tool to open another Enter/Edit Small Text dialog box and type in the following text using the same font and size with a return between each line:
    Bagel
    Muffin
    Croissant
    Soup
    Sandwich
11. Click F11/OK to return to the Composer work surface.
12. Click the work surface with the Enter/Edit Small Text tool to open another Enter/Edit Small Text dialog box and type in the following using the same font and size with a return between each line:
    $ .85
    $1.05
    $ .95
    $2.05
    $3.25
13. Click F11/OK to return to the Composer work surface.

14 Once you have all the text and prices entered move them into position as shown in the following illustration. You may find it helpful to use guidelines or Arrange > Justify to align the text.

15 Select all of the text and click the Spot Black foil swatch to fill the text with black.

16 Click Arrange > Cuts Off to make the text print-only shapes.

Note: Small text is a bitmap in Composer so a cutline would be a box around one group of small text.

Creating additional text

Quick instructions

Use the TOWS tool to create the text, **Weekly Specials**. The font is Arnold Bocklin and the height is **0.3"** (0.762 cm). Fill the text with Transparent Sapphire Blue and turn cuts off Create the text, **The Gerber Coffee Shop** in two lines. The font is Arnold Bocklin. The height is **0.44"** (1.11 cm) and the Line Spacing is **0.65"** (1.65 cm). Fill the text with Transparent Sapphire Blue and turn Cuts Off. Flip the text, The Gerber Coffee Shop upside down. Position all text as shown in the illustration.

Detailed instructions

1. Click the TOWS tool and click the work surface to activate the TOWS toolbar.
2. Choose the font Arnold Bocklin from the Font Select list.
3. Enter **0.3"** (.762 cm) in the Height box.
4. Type the text: **Weekly Specials**.
5. Select the text, Weekly Specials and click Arrange > Cuts Off.
6. Click on the Assign Fills tool to open the Assign Fills dialog box.
7. Choose Trans Sapphire Blue in the Selected Color drop-down list.
8. Click OK.
9. Move the text into position as shown in the following illustration:

Current Style: The last vinyl and/or foil selected. It is assigned to newly created objects and remains in effect until another vinyl or foil is chosen.

10. Using the TOWS tool with the Arnold Bocklin font, enter a height of **0.44"** (1.11 cm) and type: **The Gerber** and press Enter.
11. Enter **0.65"** (1.65 cm) in Line Spacing and press Enter. Type: **Coffee Shop**
12. Select the text (The Gerber Coffee Shop) and click the Fill button to open the Assign Colors dialog box. Note that Trans Sapphire Blue is already the assigned fill color (it is the Current Style). Click OK to close Assign Colors and return to the work surface.

> **Tip:** To view the current style, cancel any selected shapes. Look at the Style boxes on the right side of the Status bar. The top color is the current fill color. The bottom color is the current vinyl color.

13. Click Arrange > Cuts Off (the text is still selected).
14. Click Shape > In Place Flip Both.
15. Move the text into position as shown in the following illustration:

This completes Lesson 29. Please continue with the next lesson.

Lesson 30:
Using Acquire Image and Scan to Vector

In this lesson you will experiment with importing images using the following scanning techniques:

- Acquire Image
- Scan to Vector

For more information on using these features see OMEGA Help.

Note: If you do not have access to a scanner import the Coffee – Scan to Vector.plt located in the C:\Jobs\Learning folder. Continue with sizing and thinning the image as described in the section "Using Scan to Vector". You can also download this file from the Gerber web site: www.gspinc.com\Customer Corner\ Literature\Educational Literature\Download OMEGA 2.X Learning Guide Images. After downloading, double click LGImages.exe and copy the images to C:\Jobs\Learning folder.

Quick instructions

Using Acquire Image scan the large coffee cup image (above) as a Sharp B & W Photo at a Resolution of **150 dpi.** Delete the resulting image. Using Scan to Vector bring the coffee cup image into Composer using a Resolution of **75 dpi**. Size the image to **2.4"** x **1.7"** (6.09 cm x 4.31 cm). Clean up the vector image using Thin with an error tolerance of **0.005"** (0.127 mm). Turn the image upside down and position as shown in the following illustration.

Detailed instructions

Experimenting with Acquire Image

1. Place the print of the coffee cup in the scanner.
2. Click File > Acquire Image. The scanner dialog box opens.
3. Stretch the box to fit around the image.
4. Change Type to Sharp B & W Photo.
5. Click Custom > Print Path. The Customized Print Path dialog box opens.
6. Change the DPI setting for Photos to **150** for both Horizontal and Vertical. Click OK.

Note: Check the size of the image to make sure it is at least as big as the final size needed for the job.

7. Click Final to scan the image.
8. Save the file to the Jobs folder. The image appears on the Composer work surface. Use the Zoom tools to view the image closely. Note that the image does not look clean.
9. Select the image and delete it.

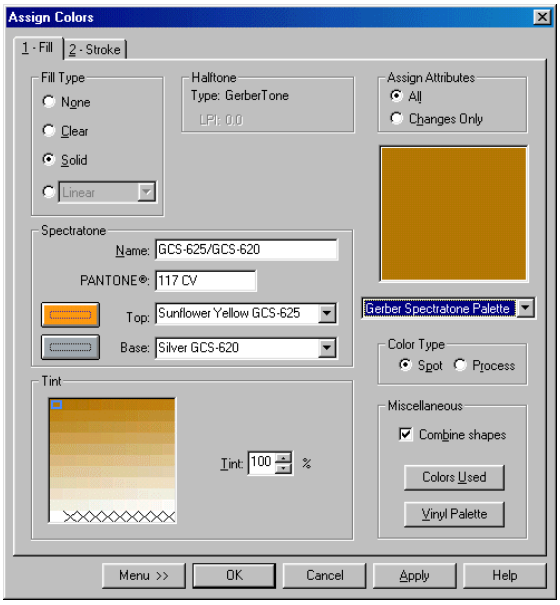
Using Scan to Vector

1. Click File > Scan to Vector. When the Scan to Vector dialog box displays, enter 3 in the Speck Size in Pixels (to remove) box and click OK.
2. The scanner dialog box displays. Stretch the box to fit around the image.
3. Change the Type to B & W Drawing.
4. Click Custom > Print Path. The Customized Print Path dialog box opens.
5. Change the DPI setting for Drawings & Halftones to **75** for both Horizontal and Vertical. Click OK.
6. Click Final and the image is scanned. The vector image appears on the Composer work surface.
7. Move the image to an empty area of the work surface and use the Zoom tool to magnify that area.
8. Size the vector image to **2.4"** (6.09 cm) x **1.780"** (4.31 cm) using the shape handles or using Shape > Absolute Size.
9. Click the Detail Selection tool and note the large number of points in the image,
10. Click Tools > Thin to open the GSP Thin dialog box. Enter an error tolerance of **0.005"** (0.127 cm) and click OK. Notice that the number of points has decreased.
11. Click Shape > In Place Flip Both.
12. Move the vector image into place as shown in the following illustration:

13. Save the file in your *My Lessons* folder.

This completes Lesson 30. Please continue with the next lesson.

Lesson 31:
Filling with Spectratone and PANTONE colors



In this lesson you will fill the large coffee cup image with PANTONE® and GerberColor Spectratone™ fills using the following techniques:

- Using the Gerber EDGE PANTONE Process foil palette
- Using the GerberColor Spectratone foil palette
- Creating a GerberColor Spectratone chart

For more information on these features refer to OMEGA Help.

Using the PANTONE and GerberColor Spectratone foil palettes

Quick instructions

Fill the vector image of the large coffee cup with PANTONE 117 CV. Change the color type to GerberColor Spectratone and note that Sunflower Yellow and Silver spot color foils can be used to simulate PANTONE 117 CV. Apply the GerberColor Spectratone color to the coffee cup.

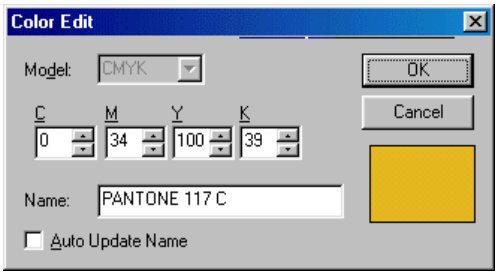
Detailed instructions

1. Select all of the shapes of the vector image of the large coffee cup and click the Fill button to open the Assign Fill dialog box.
2. Click Solid for the Fill Type and click Process for the Color Type.

3 Select the Gerber EDGE PANTONE Process foil palette from the drop down menu.

4 Enter **117** in the Color Name box and hit Tab. Note that PANTONE 117 CV appears in the Color Name box.

5 Click Edit. The amounts of CMYK needed to make PANTONE 117 display.



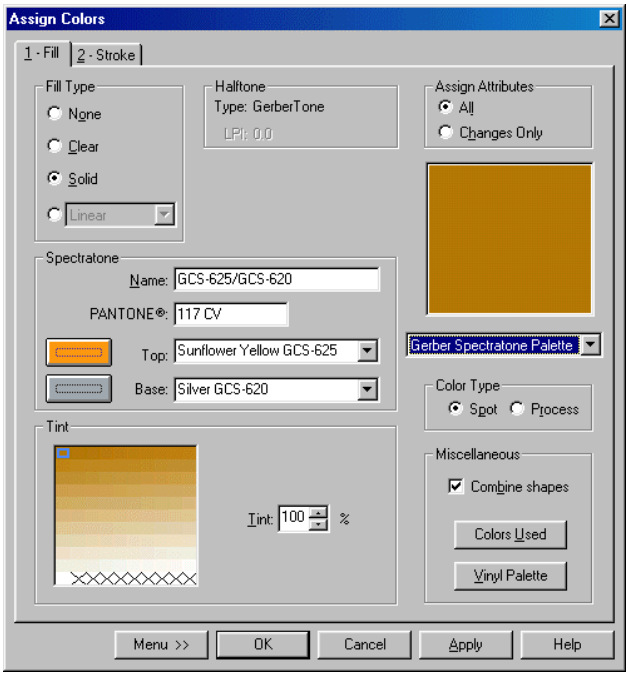
6 Click OK.

7 Change the Color Type to Spot and select the Gerber Spectratone Palette from the drop down list. Note that you can enter a Top foil color and a Base foil color or a PANTONE number.

8 Enter 117 in the PANTONE box and hit Tab. Note that Sunflower Yellow printed on top of Silver simulates PANTONE 117.

Note: You can also get PANTONE 117 by selecting Sunflower Yellow as the Base and Silver as the Top.

9 Click OK to apply the color.



This completes Lesson 31. Please continue with the next lesson.

Lesson 32:
Using advanced output features in GSPPlot

In this lesson you will output the job to the printer and plotter using the following techniques:

- Viewing the print order
- Outputting to GSPPlot
- Centering on vinyl
- Shrinking the base Spectratone color
- Weed Border
- Axis Swap

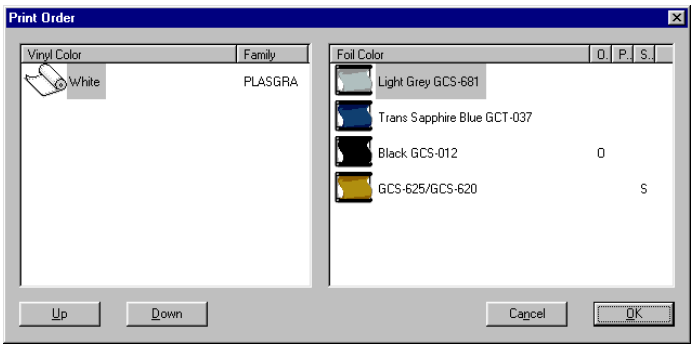
For more information on using these features see OMEGA Help.

Using advanced features in GSPPlot

1 In Composer, click Arrange > Print Order to open the Print Order dialog box.

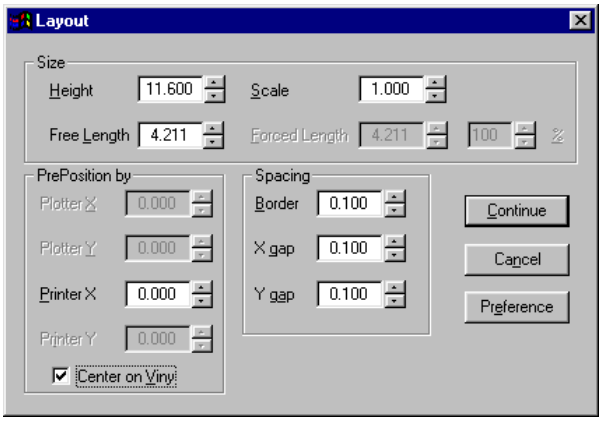
Center on Vinyl: Prints the design using the center of the print head, minimizing the chance of printing irregularities. When centering a job with panels, each panel is centered on the vinyl.

2 Check to see that the job contains only one vinyl type (Plasgra). Note that the Spectratone fill has an S to the right of the foil name. Click OK to return to Composer.



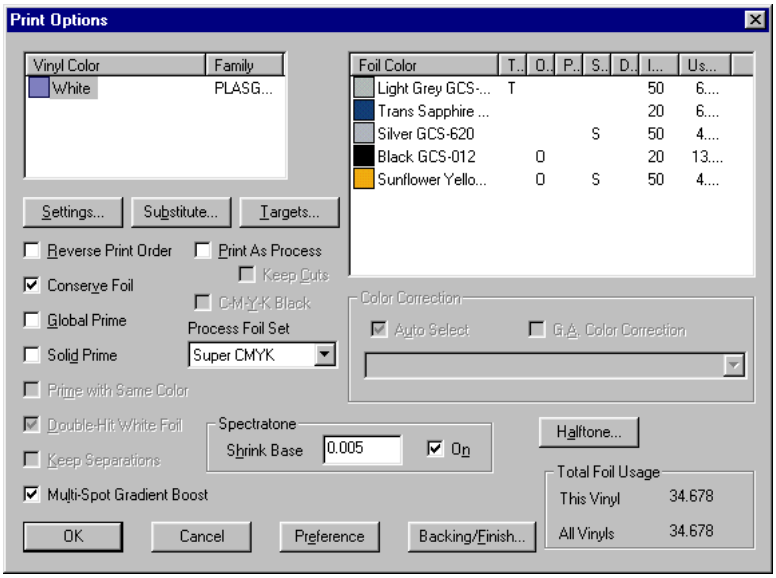
3 Click File > Output All (Shift+F11) to send the job to GSPPlot.

4 In GSPPlot, click the Layout button to open the Layout dialog box. Turn on Center on Vinyl in the PrePosition box and click Continue.



5 Click the Print Options button (123) to open the Print Options dialog box.

> **Tip:** In Print Options you can change the printhead heat settings, substitute the vinyl and any of the foils, alter the halftones, and modify the targets. You can choose Print as Process to change spot colors to their process color equivalents and keep the original cut lines or eliminate them. For complete instructions on using any of the features, press F1 when in Print Options to open Help.



6 In the Spectratone section turn on Shrink Base and enter a value of **0.005"** (0.127 cm) to improve registration of the top and base colors.

7 Click OK to return to GSPPlot.

8 Turn the Weed Border off.

9 Click the Repeats button. This feature allows you to repeat the job in GSPPlot without having to create the repeats in Composer. (If you have

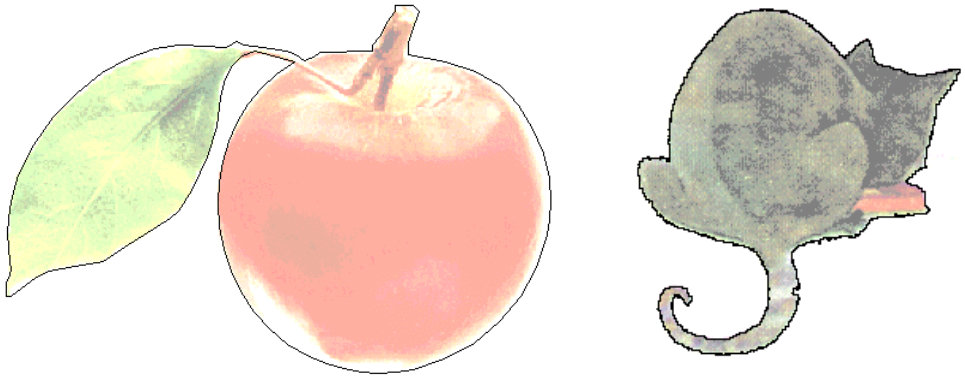
the Weed Border On, each repeat will have it's own weed border.) Click Cancel to exit.

10 Click the Axis Swap button. Note that the job is now rotated 90°. Swapping the orientation of the job can save material and foil. For this job, click Axis Swap again to turn it off.

11 Output the job to the EDGE® 2 and the enVision™ 375.

This completes Lesson 32. Please continue with the next chapter.

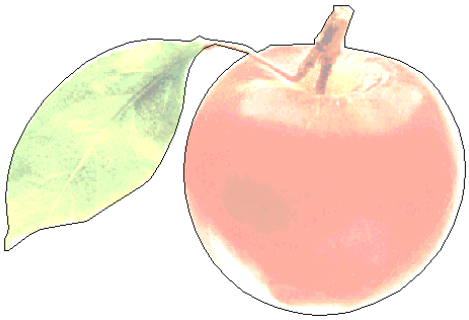
Chapter 15:
Creating Cut Lines on Images



This chapter covers the tools you need to create cut lines on imported images. You will learn three different techniques to create cut lines:

- Generate Decal Cut
- Posterize Images

Lesson 33:
Generating a Decal Cut to create cut lines



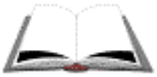
In this lesson you will create cut lines on images using the following techniques:

- Filling an image with Process color
- Altering the image Thumbnail
- Cropping an image
- Generating a Decal Cut
- Dimming an image

For more information on using these features refer to OMEGA Help.

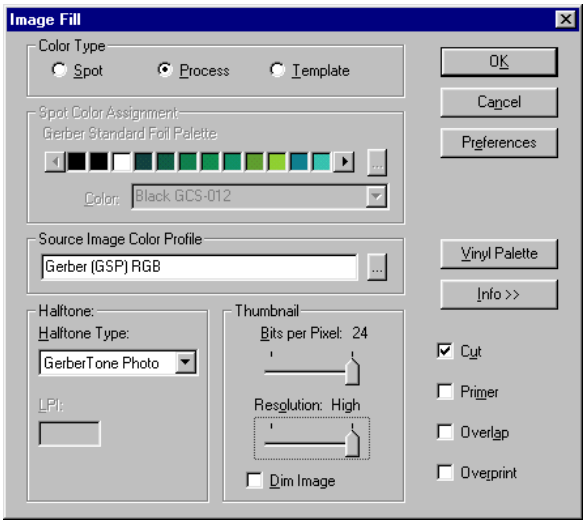
Quick instructions

Open the file C:\Jobs\Learning\Apple.pcx. Increase the Thumbnail resolution and Bits per Pixel and generate a Decal Cut. Open the file C:\Jobs\Learning\Cats.bmp and crop it to isolate the black cat in the upper right-hand corner. Increase the Thumbnail resolution and Bits per Pixel and generate a Decal Cut. Note the poor results and discard the Decal Cut of the cat image.



Detailed instructions

1. Open the C:\Jobs\Learning\Apple.pcx file.
2. Select the image and click the Image Fill button on the Toolbox toolbar to open the Image Fill dialog box.



3 In Color Type choose Process.

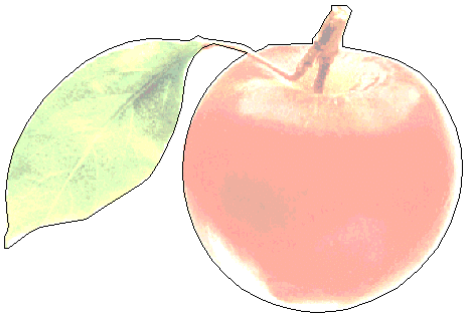
4 Using the sliders alter the Thumbnail settings to 24 Bits per Pixel and High Resolution. Click OK.

Note: Using a higher resolution setting produces a cleaner decal cut.

5 With the image selected, click Tools > Generate Decal Cut.

6 To see the cut line more clearly, click View > Dim All Images and make sure it is activated (there will be a check beside Dim Image). Alternately, you can turn on Dim Image in the Thumbnail section of the Image Fill dialog box.

7 Close the file. You do not have to save it.



Note: Any necessary cleanup of the decal cut can be accomplished using Thin and/or Detail Edit.

8 Open the C:\Jobs\Learning\Cats.bmp file.

9 Select the cats image.

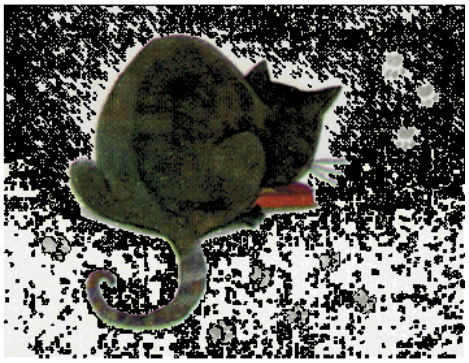
10 Click the Crop Image tool (scissors) from the Image Fill flyout toolbar.

11 Click the shape handles and drag them to crop the image to eliminate all but the black cat in the upper right-hand corner.

12 Click Image Fill to open the Image Fill dialog box. In Color Type, choose Process.

13 Alter the Thumbnail settings to 24 Bits per Pixel and High Resolution. Click OK.

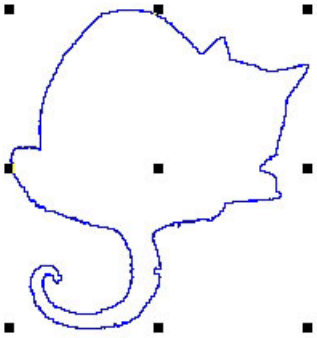
14 With the image selected, click Tools > Generate Decal Cut. The results are not acceptable. Note that there are many cut lines in the background and the cut lines are not clean.



15 Click Edit > Undo to remove the Generate Decal Cut. Keep the file open for the next lesson.

This completes Lesson 33. Please continue with the next lesson.

Lesson 34:
Posterizing an image to create cut lines



In this lesson you will create cut lines on an image using the following new technique:

- Posterizing an image

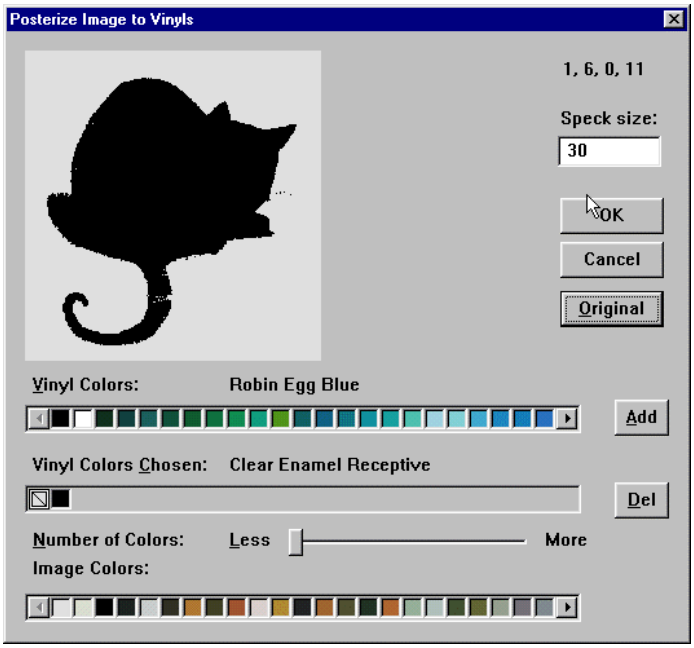
For more information on using this feature refer to OMEGA Help.

Quick instructions

Open the file, C:\Jobs\Learning\Cats.bmp and crop to isolate only the black cat in the upper right-hand corner. Posterize the image, setting the number of colors to Less. Double-click the Clear Enamel Receptive vinyl to ignore that material (crosshatch through swatch). Use Detail Edit or Thin to clean up the cut line.

Detailed instructions

1. Select the cat image and click the White vinyl swatch to place the image on white vinyl.
2. Click Tools > Posterize Image to open the Posterize Image to Vinyls dialog box.
3. If prompted to create a Template, click Yes.
4. Move the Number of Colors slider bar from More to Less.
5. The Vinyl Colors Chosen should be: Clear Enamel Receptive and Black.

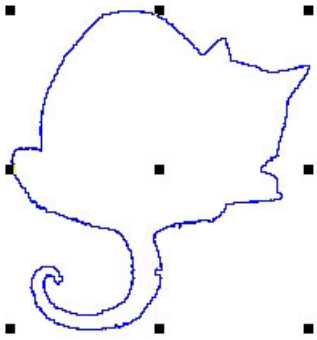


6 Double-click the Clear Enamel Receptive swatch to get a crosshatch across the swatch. This instructs OMEGA to ignore that color when posterizing.

> **Tip:** If you do not like the results of Posterizing click Original to return the image to its original state. You can then adjust the slider or Delete or Add colors. For detailed instructions, press F1 when the Posterize Image to Vinyls dialog box is open to display related Help topics.

7 Click OK to posterize the image and return to the Composer work surface. The results should be a cut line around the cat.

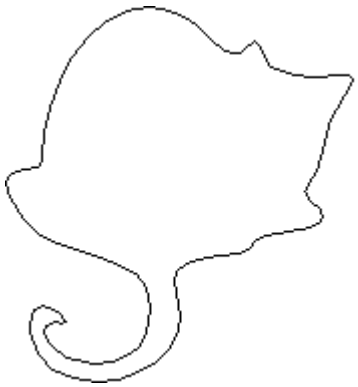
8 Move the cutline to an empty area on the work surface.



9 Click the Smooth Path tool on the Detail Edit flyout toolbar. The Property bar displays.

10 Using the Smooth Path tool click and drag around the cutline.

11 Enter 15 in the Property bar and wait for the cutline to update.



Note: Any other necessary cleanup of the decal cut can be accomplished using Detail Edit.

This completes Lesson 34. Please continue with the next chapter.

Chapter 16:
Working with EDGE fonts

This chapter covers EDGE font basic design tips. The techniques you will learn are:

- Filtering font categories
- Assigning the current style with EDGE fonts
- Selecting fills by foil color
- Editing EDGE font fills
- Using Suppress Fill Cuts
- Using the appropriate vinyl for an EDGE font

Lesson 35:
Creating and editing text using an EDGE font

In this lesson you will create the above sign using the following new techniques:

- Filtering Font Categories
- Assigning the current style with EDGE fonts
- Using Suppress Fill Cuts to ignore cut lines
- Selecting fills by foil color
- Editing EDGE font fills

For more information on using these features refer to OMEGA Help.

Quick instructions

Filter the font categories so that only the EDGE fonts display in the font list. Create the text, **OMEGA** using the font, GRADUAL G-EDGE at a height of **3"** (7.62 cm). Suppress the cut lines on each letter. Change the fill from a Green to Clear spot gradient fill to a Light Purple to Clear spot gradient fill.

Detailed instructions

1. Click the TOWS tool to activate the TOWS toolbar. Click the down arrow at the right end of the toolbar to open the secondary TOWS toolbar.
2. Click the Select Font Categories button to open the Filter by Category dialog box. Choose EDGE from the list and click OK. Only the EDGE font styles display in the font list.
3. Choose the font, GRADUAL G-EDGE and enter a height of **3"** (7.62 cm). Click the work surface and type **OMEGA**. Note that there is a cut line on each letter.

4. Click View > Filled (or press F8) and note that the text is automatically assigned a current style. In this example the text is created of multiple layers of Black and Green spot foil on White vinyl.

5 To remove the cut line on each letter:
   - In TOWS mode, highlight the text and turn on Suppress Fill Cuts, which is located on the secondary TOWS toolbar.
   - In Enter/Edit Text mode, smart edit the text to return to the Enter/Edit Text dialog box and turn on Suppress Fills Cuts (F4).

> **Tip:** Using Suppress Fill Cuts gives better results with EDGE fonts than simply deleting cuts.

6 Click Select > Spot Color > Fills to open the Select by Spot color dialog box.

7 Select the Green fill box and click OK.

8 Click the Fill button to open the Assign Colors dialog box.

9 Turn on Use single color in gradient fill check box.

10 Choose Light Purple in the Selected Color drop-down list.

11 Click OK. The text changes to a purple to clear gradient fill.

Note: Do not use the Foil Palettes to change the color of the text because you will lose fade information.

This completes Lesson 35. Please continue with the next lesson.

Lesson 36:
Using the correct vinyl with EDGE fonts

EDGE fonts were designed using a particular vinyl substrate. In this lesson you will see how the choice of vinyl affects the EDGE font appearance. This chapter also includes a reference chart of EDGE fonts and their intended vinyl substrate.

In this lesson you will create the above sign using the following new techniques:

- Determining the correct vinyl for an EDGE font
- Changing the view from Print Order Design to Print Order Output

For more information on using these features refer to OMEGA Help.

Quick instructions

Filter the font categories so that only the EDGE fonts display in the font list. Create the text, **Reflection** using the font, Alumina Bold G-EDGE at a height of **1"** (2.54 cm). Choose Apple Green (220) as the vinyl and view the results. Refer to the chart at the end of this lesson for the proper vinyl to use with Alumina Bold. Change the vinyl to Medium Grey (220) and view the results. If the inside of letters appear to be filled with Medium Grey vinyl, change your view to Print Order Output.

Detailed instructions

1. Click the TOWS tool to activate the TOWS toolbar. Click the down arrow at the right end of the toolbar to open the secondary TOWS toolbar.
2. Click the Select Font Categories button to open the Filter by Category dialog box. Choose EDGE from the list and click OK. Only the EDGE font styles display in the font list.

3. Choose the font, Alumina Bold G-EDGE and enter a height of **1"** (2.54 cm).
4. Click the TOWS tool on the work surface and enter the text, **Reflection**.

5. Click the Selection pointer and marquee select all of the text.

6 Choose the Apple Green (220) vinyl swatch.

7 Click View > Filled (F8) to see the text on Apple Green vinyl.

8 Refer to the following chart to see that Alumina Bold is designed to be printed on Medium Grey (220) vinyl to a simulate a reflective metal surface. With the text still selected, choose the Medium Grey vinyl swatch. The text now resembles a reflective metallic surface.

9 If the inside of letters appear to be filled with Medium Grey vinyl, change the view from Print Order Design to Print Order Output. Click View > Print Order Output to view the job as it will be printed, cut on a plotter, and weeded.

Tip: To view samples of EDGE fonts on their intended vinyl substrates, open the PLT files located in the folder, C:\Jobs\Efontsmp.

EDGE fonts and their intended vinyl color

EDGE Font	Vinyl Color	EDGE Font	Vinyl Color
Agenda Extra Bold	White	Hotdog	Bright Orange
Alloy	White	Hyde Park	Geranium
Alpa	White	Illusive	Fluor. Red Orange
Alumina Bold	Medium Grey	Jade	White
Asiatic	Dark Green	Jasper	White
Barnyard	Robin Egg Blue	Jamaica Bold	Geranium
Beta	Dark Aqua	Liquid Crystal	White
Blacksmith	White	Millen	Intense Blue
Bubblegum	Magenta	Modula Roman	Dark Green
Burgess Chrome	White	Morning Glory	White
Classic Bold	White	New Mosaic	Teal
Clearcut	Clr. Enamel Receptive	Sahara	Apricot
Cyborg	White	Showbiz	White
Distinction	White	Stovepipe	White
Dropout	White	Surge	Olympic Blue
Eurostile Bold	White	Taverna	Metallic Gold
Fairway Compact	White	Terminus	White
Flamingo	Vista Yellow	Tolerant	Bright Yellow
Fusion	White	Twofold	Cardinal Red
Gothic Black	Metallic Gold	Yankee Doodle	White
Gradual	Metallic Silver	Zany Connected	White
Heritage	Cardinal Red		

Congratulations! You have completed the OMEGA Learning Guide. We recommend that you explore OMEGA Help for detailed information on all of OMEGA's features. To further test your extensive design skills, try the Practice Example below.

Chapter 16: Practice Example

This following example uses many of the skills learned in this chapter. For help with this example, see the step-by-step instructions for completing the example posted on the Gerber web site at www.gspinc.com\Customer Corner\Literature \Educational Literature\Chapter 16 Practice Example.pdf.

Create the sign shape beginning with a box that is **3"** (7.62 cm) high and **6"** (15.24 cm) long. Distort the box using **#47** with the radius **4.5"** (11.43 cm). Create a second box **5"** (12.7 cm) high and **11"** (27.94 cm) long. Distort this second box using **#49** and **8"** (20.32 cm). Center justify the boxes.

Draw an oval **1.3"** (3.30 cm) high and **1.7"** (4.31 cm) long. Rotate the oval **18°** and place along the top left edge of the previously created sign blank. Draw a second oval **0.75"** (1.90 cm) high and **0.9"** (2.28 cm) and place as shown. Use Effect A-B= with B **off** to combine the ovals and the distorted shapes. Use Detail Edit to create the sign shape shown in the illustration.

Outline the combined shape. Pass 1 has **2** outlines at **-0.100"** (2.54 mm) outline distance. Pass 2 has **1** outline at **0.300"** (7.62 mm) outline distance. Size the entire design to **11"** (27.94 cm) high and **13"** (33.02 cm) long. Detail Edit the outermost outline to create the distinctive contours.

Fill the shapes as follows:

- Outermost shape is spot Burgundy
- Middle shape is spot Black
- Inner shape is a linear fill of Process Cyan fading to Black fading to Process Cyan at a Linear Angle of **90**. Change the halftone of the linear fill to Classical Dot at **32 LPI.**

Apply Choke/Spread to the fills at **0.025"** (0.635 mm).

Import the palm leaves.bmp and trunk.bmp. Fill the trunks with Brown and the leaves with process C100, M0, Y58, and K60. Give both images a Black Stroke of **0.023"** (0.584 mm) with Round corners.

Create the text, **WELCOME TO** using Dom Casual at **0.5"** (12.7 mm) high. Fill the text with Terra Cotta and give it a Black stroke that is **0.025"** (0.635 mm) in width with Round corners. Turn Cuts Off. Create the text, **A SHOPPING TRADITION** (in two lines) using Dom Casual at **0.5"** (12.7 mm) high. Fill the text with Kumquat and remove the stroke. Turn Cuts Off and group the text.

Create an oval that is **2.2"** (5.58 cm) in Height and **4.8"** (12.19 cm) in Length. Outline the oval. Pass 1 has **2** outlines at **0.05"** (1.27 mm) in Outline Distance. Fill the ovals as follows:

- Outermost oval is spot Black
- Middle outline is spot Orange
- Inner shape is spot Brown

Create the text **WESTSIDE** using BENGUIAT MED at **1.5"** (38 mm) high. Add 1 outline at Distance of **0.050"** (1.27mm). Distort the text with **42 Vertical Arc Up** and enter in **0.3"** (7.62 mm) in H2. The text is filled with Kumquat and Black.

Create the text **SANTA ANA** using BENGUIAT MED at **1.0"**. Add a Shade Shadow at **0.300"** (7.62 mm) in depth, **–90.0** in angle, and Partial in type. The text is filled with Orange and the shadow is filled with Black.

Use the Arrange and Justify tools as needed to correctly complete the sign.

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