# a seven hour journey Io produlivily 

SignBlazer5
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A3 Getting Help

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| Mmmmeasure | Ctrick | R1,R2 |
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## Learning Guide

Starting the Program


## Starting a New Work



When you are ready to start a new work, click the 'New' tool icon on the Toolbar, or select 'New' on the 'File' menu.


Before new work can be put on the Work Space, you are invited to set the new sign (Work Space) size. The size you have last used will be displayed. You may change it if you wish.

## Closing the Program



If you have made changes to your on screen work since you last saved it, you will be prompted to save those changes before closing the program.


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## Learning Guide

The first step in the layout of your work is setting the correct sign (Work Space) size.


You can also choose to measure in millimetres ( mm ) or imperial inches (in). The rulers will be scaled in the unit you choose, and the unit will also be displayed where the rulers meet on the program window. (Clicking on this corner with your mouse will also change the selected unit.)

If you don't want the Work Space border to be displayed, remove the tick from the "Show Border" option box in lower left corner of the window.


Help is never more than a click or two away ...

## Using the Help File

You can open the 'Help' File by pressing the ' $F 1$ ' key or selecting 'Contents' from the 'Help' menu or the 'Help' icon
 on the Toolbar. The Help File displays every menu and tool icon. Click on the tool icon or menu item you want to review.

To get help on a specific topic, click 'Search' on the 'Help' menu. Type an initial letter to search topics alphabetically or choose one from the topics listing and click 'Display'. OR click the 'Help' icon found in each tool's dialog box to



## Blazer on the Internet:

Blazer maintains a World Wide Web site which you can reach by clicking your Windows ${ }^{\text {TM }}$ Internet Explorer icon and typing "www.blazer.com.au" in the Explorer's address box.

OR .. you can reach the site from the program by clicking 'Blazer Web Site' on the 'Help' menu. You can download the latest software or read the latest information.


## Demonstration Version:

The demonstration version of the software allows you to try out all the features of the software even if you are running a simpler level of the program It is a full working version, except that when you print or cut your work, there will be lines through your work. A software lock is not needed.
You can access this version of the program by selecting 'Run Demo' from the 'Help' menu or Click the Windows 'Start' button, then point to 'Programs', - 'Blazer', - 'Demo Version'.

## Using 'Tip of the Day'

Select 'Help', 'Tip of the Day'to display an item of interest to increase your program knowledge. Click 'Next Tip' to view more tips or 'Close' to exit. Tick the box at left bottom to see a tip each time you start.


## Finding the Current Version

You can find the version of the program you are using displayed in the 'About ...' window. Click 'About' on the 'Help' menu.


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## Learning Guide

## A Tour Around the SignBlazer Screen

Title bar: displays the current file name and program level.

Main menus - selecting a heading causes a drop-down menu to be displayed.


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## Learning Guide

## Customizing Your Screen

A Work Space suited to your preferences can make your work more comfortable and efficient. This program allows you to alter the Work Space to suit your needs . . .

You may find that you prefer a larger Work Space. You can turn the rulers on or off.

1) Select 'Settings' from the main menu.

Click the item
'Show Rulers' to turn them on or off.


团



You may also choose where to place the Toolbar for quick and easy use.

(1)Select ' Configure Toolbar' from the 'Settings' menu Or click the Right Mouse Button on the toolbar.

Choose where you would like to place the Toolbar.

3
Choose 'Large' or 'Small icons, then press 'OK'.


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## Learning Guide

## Moving Around The Work Space

This program follows the standard method of naming locations on the screen.
The default zero position is at the bottom left corner of the Work Space border.


You can move the zero position to any place on the Work Space.

Click the 'cross hairs' where the rulers meet. The Origin dialog box opens.


Enter the co-ordinates for the new origin position in the ' $X$ ' and ' $Y$ ' boxes, or you may choose 'Centre'.

Press the 'Zero' button to return to the original (default) zero position.


Grab the 'cross hairs' where the rulers meet.


Drag the cross hairs to the required location on the Work Space, and release the mouse.

## Setting Up the Grid

You can place regularly spaced grid lines on the Work Space to help in the layout of your work.

You must tick a 'Grid' box to make the grid lines visible, and tick a 'Snap' box to snap objects to the grid lines.


Click this button to bring up the grid settings
. Then click the $\mathbf{\downarrow}$ beside either grid spacing box to bring up a list of values. Click the value you need, or type your own value in a grid spacing box and press 'Enter'.

## Learning Guide

Viewing The Work Space

In the process of laying out your work, it is necessary to be able to enlarge small details as well as view the whole design. The Toolbar, the View Menu and the Function Keys have tools you can use to see areas of interest on the Work Space.



View menu 'Zoom Selected', the 'Selected'Tool or the Function Key 'F10', enlarges any selected object to fill the program window.


The 'Zoom All' tool or View menu item or Function Key 'F7', rescales the screen so that all objects are visible in the program window.


To view an area of interest, click the 'Window' tool, or View menu 'Zoom Window' or press Function Key 'F4'. Drag a box around the area you want to view and click again to enlarge the area to fill the program window.

The View menu item 'Zoom Previous', the 'Previous' tool or the Function Key 'F9', allow you to switch back and forth between views, perhaps a detail and your complete work.


Zoom Extents

Selecting 'Zoom Extents' on the View menu allows you to view all objects including the Workspace border itself as an object. This can be useful for instance, when moving remote objects back to the Workspace.


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## Learning Guide

## Viewing The Work Space

## Zooming to Height or Width

 Select "Zoom Width" or "Zoom Height" from the "View" menu or the tool from the Toolbar


Panning
Select "Pan" from the "View" menu or choose 'Pan' from the Toolbar. Using


View
 the mouse, drag the 'hand' icon to pan the screen in any direction you want.

Click the Right Mouse button or choose 'Select' to finish.


## ZOOM IN x 2



Hold 'Ctrl'. Click the RIGHT mouse button to Zoom IN X 2 .

Or you can select 'Increase by 2' from the View menu or press Function Key 'F5'



Hold 'Shift'. Click the RIGHT mouse button to Zoom OUT X 2.

Or you can select 'Decrease by $\mathbf{2 '}^{\prime}$ from the View menu or press the Function Key 'F6'


## MOUSE ‘WINDOW’ ZOOM

You can also use the mouse to select an area for closer viewing which acts the same as the 'Window' tool.

Hold the 'Shift' key. Click and hold the RIGHT mouse button and drag a box to enclose the area you want to see in detail. Then release the mouse.


## Learning Guide

Although you can place grid lines onto your Work Space, often you will need lines which are not evenly spaced and are easily moved. You can easily set, move and delete guidelines as you need them.

## 1) Creating Guide Lines



To create an 'orthogonal' (vertical or horizontal) guideline, click your mouse on the ruler at the place you want the guide to appear.

## (2) Creating Angled Guide Lines

Click on an orthogonal guide line on its ruler tag to select it. The ruler tag will become solid yellow.

Rotation nodes will appear on the guide.


Move the central node to the point you want to rotate around.


Drag the top or bottom node to create the angle you want. Click on the screen to deselect the guide line.

You can reselect the guide by clicking on its ruler tag.


## (3) Making Guide Line Arrays



To create guide arrays and stems, click the right mouse button on a guide line ruler tag. In the 'Guide Lines' window, click the 'Array' button. Enter the number of repeat guides you want and the Guide separation you want. Click OK.

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\mid
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(4) Moving Guide Lines


You can move any guide line, orthogonal or angled, by clicking on its ruler tag and dragging it along the ruler to a new location.

Alt


If you hold the 'ALT' key you can also drag guide lines on the screen.

To select guide arrays or a group of guide lines, hold the SHIFT key and select each guide by clicking its ruler tag. While still holding SHIFT, drag the guides along the ruler.

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## 5 Setting Exact Guide Line Positions

 Click the right mouse button on a guideline where it crosses the ruler. This guide line will appear selected in the Guide Lines window. Use the tabs to select a new guide line orientation if required.

For orthogonal guide lines, type a location value in the Giude Position entry box.

## For angled guide

lines, type a location value for the rotation point in the " $X$ " and " $Y$ " entry boxes. Type the required line angle into the Angle entry box.

## (6) Setting Attributes

Select the "Guides" attribute box at the bottom right of the screen to set 'Snap To' and visibility attributes.

(7) Removing Guide Lines mouse button on a guideline where it crosses the ruler. This guide line will appear selected in the Guide Lines window. Use the tabs to select a new guide line orientation if required.


Hold the CTL key to select additional individual guide lines. Hold the Shift key to select additional guide lines as a group.
Click 'Delete' to remove all selected guidelines.
Click 'Clear All' to remove all the guidelines appearing in the list for any guide line orientation.


## 8 Aligning Guide Lines to Objects



## (9) Aligning Objects to Guide Lines

Grab a selected object near the node you want aligned to the guide line.


With 'Snap' to Guides selected the node will 'stick' to the guides when moved towards them.

You can also grab text near its baseline
 to align the text baseline to a guide line.

There are several viewing modes that can assist when doing complex graphics

Outline/Wireframe viewing mode allows you to display only the outlines of objects without their fill colors.
Using this mode you can see objects otherwise obscured by other artwork and you can more easily select components of your drawings.


You can turn the mode on and of using 'Cntl' + 'F' keys or by selcting 'Outline/Wireframe' from the 'View' menu. A bar on the menu item's left glows red when the mode is active.

If you have opened a file as a background you can turn the background on and off by simply selecting 'Show Background' from the 'View' menu. A bar on the left of the menu item glows red when the mode is active. When turned off, the background file will not appear on the screen and will not be printed.
'Full Render' allows complex bitmap graphic effects to be displayed on the screen (e.g. 'bitmap masking', transparency, enhancements and fills) and must be selected for them to be viewed correctly. (If no bitmap effects are included in your work unselecting this option will speed up the redisplay of nonrendered objects)


You can turn 'Full Render' on or off by pressing 'Cntl' + 'F' keys, or selecting 'Full Render' by selecting the item on the 'View' menu. A bar on the item's left will glow red to indicate that 'Full Render' is currently active.


It is convenient sometimes to view a background file as a 'WireFrame'. This still allows you to see the background, while getting a clear view of any work in the Work Space. To view the background in WireFrame mode, select 'Background WireFrame' from the 'View' menu. A bar on the left of the menu item glows red to indicate that 'Wireframe' mode is active. To view the background in solid mode, select this item again.

1


Click on the Toolbar tool icon 'Open' or select 'Open' from the 'File' menu. The Open dialog box will appear.
The last 8 files opened are listed at the end of the 'File' menu Clicking on a name will reopen the file.

## Note:

Opening a file clears the Work Space unless you choose the "Append" option, so you will be prompted to save changes to your current work.

## Drawing

This is the standard way to open a file. Your work will reappear exactly as it was when last saved. any previous file you were working on will be closed.

## Background

The objects in the file you are opening are added to your current work, but placed behind it and are all initially locked. These objects can be printed but can't be cut and can be unlocked as standard objects. Using 'View' menu options they can be turned on or off or viewed in 'wireframe' mode.

Select the Drive and Directory which you used when you saved your files from the 'Drives' and 'Directories' lists.


Select the mode you want to apply to the file to be opened then scroll through the list of preview thumbnails and 'file names' and double click the file you want or click on it and select 'OK'



You can even create a new folder for new files (without opening 'Explorer' ${ }^{\text {TM }}$ ) by clicking 'New Folder'

## Template

The objects in the file you are opening will be drawn on the Work Space behind the current objects. You can't select these objects, as they can't be unlocked but you can print and cut them.

PAGE C1

It is good policy to save all your work. You can always delete files later if you decide not to keep them.
The first time you save a new sign, use 'Save' or 'Save as' to give your work a file name. You can also choose 'Save as' to save versions of your work under other names for later recall.


To save your work with a new name, click on the 'Save as' tool icon on the Toolbar, or choose 'Save as' from the 'File' menu. The 'Save as' dialog box appears.
(If you are saving new work, selecting 'Save' will also open the 'Save As' dialog window to allow you to name the new file).
(3) To check that the name you wish to use is not already in use, scroll through the displayed file names and previews - pressing a keyboard key with a file selected will locate that alphabetical section.


Under earlier versions of Windows ${ }^{\text {TM }}$ ( like Windows 3.1) you were limited to 8 characters when naming your files, and you could not use some characters such as the 'Space' character in a name. When naming files or file folders in 32bit versions of Windows ${ }^{\text {TM }}$, (Windows 98/ME/2000/NT etc.) you can use up to 256 characters and include spaces. The only character you should not use is the 'Full Stop' as the system will consider following characters as a file extension (like 'sbd' or 'tif')
You do not need to type in '.sbd' after typing in a new file name as the program will add that for you.

## Contents of 'E: (My Work'

ranges.SBD
This is the stuff I did for Bloggs \& Co before my holidays.SBD

Backup Options

If the power fails to your computer you will lose any work done on the screen since you last saved it.

You can "Automatically Save" your work at set intervals. Choose "Auto Save" on the "Settings" menu. Tick "Enable"and enter an interval. (Avoid setting to '1 min' some very large files may take that long to save, leaving no time before resaving)


To further protect your work, you can have the program save a copy of a file as a 'Backup' file. If your current work should be accidently corrupted, you can find the backup file (named like 'myfile.BAK') using Windows ${ }^{\text {TM }}$ Explorer and rename it to 'myfile.SBD'

To use the backup system, tick the option you want in "Preferences" under the "Settings" menu.


Although modern computer hard drives have become much more stable, it is still good policy to regularly copy all your working files to some form of mass storage such as high capacity discs, data tape or writable CD's


Saving Information in Files


PAGE C3


PAGE C4

## Learning Guide

You can bring artwork, clipart and drawings created in other programs, directly onto the Work Space. A number of different formats are used by other programs to store their work in files.
A wide range of file formats such as 'EPS', 'Al', 'BMP', 'TIF', 'GIF', 'PCX , 'TGA', 'JPG', 'DXF', ‘PCD', 'PCT', ‘PSD’ and 'CMX’ are supported.


You can save your work in graphics formats other than '*.SBD' and then import it in other graphics programs (such as CorelDRAW or Adobe Illustrator.) The popular bitmap and vector formats 'EPS', 'TIF', 'DXF', 'JPG' and 'CMX' are supported


3
Select the format you want to use from the formats in the 'Files of Type' box.
Encapsulated. PostScript(x EPS] AutoCAD DXF[ $\times$. DXF)
Tagged Image Format(*. TIF) JPEG(*.JPG)
Corel DRAW! CMX[. CMX)

You may scroll through the file previews, choose a file and double click on it (this overwrites the original file with your changes) or enter a new name into the entry box and click 'OK'.


## PAGE C6

## Learning Guide

## Organising Computer Files



PAGE C7

## Learning Guide

## Sending Files by Email

Before you can use the program's Email facility you need to have an Internet connection through an 'Internet Service Provider' and an Email account. You also need a modem (Either internal or external) connecting your computer to the telephone service.


To send a program file from the screen by Email, select 'Send' from the 'Tools' menu. You can also select 'Send' for any file selected in the 'File Open' dialog window.

The 'Choose Profile' dialog box opens.
 Choose the method (or 'Profile') you want to use for sending Email (this is either 'Inbox' or a program you have installed to handle your Email), and click 'OK'.


The Email editor associated with your Email handling program will automatically open and the program file will be automatically inserted in the message.


Enter the Email address you want to send to or select one from your 'Address Book' (e.g. bloggs@hotmail.com)
Enter a 'Subject' if needed.
Enter any text message you want to accompany the file.
Select the 'Send' or 'Deliver' option from the Editor's options or menu.


PAGE C8

## Learning Guide



PAGE D1

## Learning Guide

The main Toolbar allows you to use the tools you need most, quickly and easily. Just click a tool icon to use that tool.


Scroll through all the Toolbar tools by simply clicking the arrow buttons.

With each click a new set of icons will appear in the unlocked section.

A greyed-out item shows that the option is not available in this level of the program.

## Customising the Tool Palette

The Popup Tool Palette is a floating toolbox which appears on the screen when you click the Right Mouse Button on any empty Workspace area. You can customise it to suit your needs.


PAGE D2

## Learning Guide

## Selecting an Object

You cannot do anything with an object until you 'select' it, there are various ways you can do this.

Click your mouse on an object. A selection box with eight nodes appears around it. Also the Multi-Function T-Bar appears inside the box.


1 10biects Selected-Polyline
Object size: Horizontal

The star is now 'selected'. You can move it or use any of the tools on it.

The top status window shows that an object is selected, and the lower window shows the size of the selection box.

You may also select an object by using your mouse to drag a box on the Work Space which completely - or even partly - covers the object. Then release the mouse.


## Select by Color

You can also select objects by color. This can be useful if you want to change all objects of a specified color, select hidden objects or lock objects of a particular color. To do this simply right click on one of the color palettes and the Color Select dialog box will appear:


Click on the colors from the swatch you want to select - to make this quicker you may want to use 'Select All' or 'Deselect All'.
With 'Auto Select' ticked all screen objects having the same color as selected swatch colors will be automatically selected. Without 'Auto Select' ticked, clicking or dragging the mouse on the screen will only select chosen swatch colors.


Holding 'Shift' while choosing colors will allow you to select or deselect more than one color at once.

Click 'Close' after selecting by color.

To deselect an object, click on an empty space on the Work Space, or select another object.

To deselect all objects, press 'Ctrl'+'Shift'+'A' keys together.

## Learning Guide

## Selecting More Than One Object



Click to the top left of the objects and drag a box to at least partly cover the objects. Then release the mouse.

Every object falling even partly within the box will now be selected and a selection box will surround them all.


If you hold down both the 'Ctrl' and 'Shift' keys as you drag a box ...

... only those objects completely enclosed inside the box will be selected.

The status windows show the number of objects selected, and selection box size.


Objects you want to select together may be spread out with other objects in between ...

SHIFT Press and hold the 'Shift' key.


Click on each object to be selected. A selection box forms around the objects. Only the objects you clicked on will be selected.

To select all objects at once, choose 'Select All' in the 'Edit' menu
... or press 'Ctrl' + A'

$$
\text { CONTRO } \mathrm{A}
$$

To deselect all objects choose 'Select None in the 'Edit' menu
... or press Control +Shift+'A'


PAGE E2

## Learning Guide

## Selecting Objects Hidden Underneath Others

In the process of drawing, objects can become hidden beneath others.


Selecting the 'Wireframe' tool icon from the Toolbar reveals all objects as outlines, with the outlines in each object's fill color.


You can then select objects inside the borders of others by holding the 'Cntrl' key

... and then clicking the mouse directly over an object's outline.

## Deleting

To clear an object from the Work Space ...


Select the object and then...


OR
Click the 'Delete' button on the ToolBar.


Click the right mouse button and select 'Delete' from the "Popup Tool Palette' (if you have included it on the Palette).


PAGE E3

## Learning Guide

## Moving Objects

(1) Select the object you want to move.

(2) Click and hold the mouse inside the selection box.

## 3



Move the ' $X$ ' pointer to the new location. A line shows the direction and distance of the move. A dotted box shows the new location.


Release the mouse to complete the move.

Move DX:-38.51 DY:30.54 DL:49.15 Angle:141.58
Object size: Horizontal $\sqrt{250.35} \triangleq$ Vertical $\sqrt{116.85} \triangleq$ Keep proportional

## Moving a Number of Objects



Click and hold inside the selection box and drag the ' X ' pointer to a new location. A movement line shows the direction and distance of the move.

## Learning Guide

You have the flexibility to line up any corner, side centre, or the object's own centre, with both guide lines and the Work Space grid. To align with the Work Space grid:


Move the object
3 towards the place you want it to be lined up.

A movement line and dotted outline will extend from the chosen node and 'stick' to the grid.

 nine places on your object can be aligned with the grid.

## (4) Lining up Text Baseline with the Grid

Not only can text be aligned to the grid by midlines, corners and centre; but also by its baseline.
Grab text close to its baseline and move it ...


The text baseline is aligned with the grid.

PAGE F2

# Nudging Making Small Movements 

Pressing any of the keyboard direction keys will 'nudge' a selected object in the arrow direction.


## Making Micro Movements

If you hold the $\square$ key while nudging, the distance moved will be only $1 / 10$ (10\%) of the normal distance.

You can set the distance moved in a nudge.

On the right of the lower status bar, keep clicking the '->>' button, until the nudges settings are visible. Enter values the 'Horizontal' and 'Vertical' boxes.

Horizonal Nudge Amount
Vertical Nadge Ameouat

| 1.02 |  |
| :--- | :--- |
| 1.02 | $=3$ |

## OR.

Click the 'Prefer' tool icon on the Toolbar, or select 'Preferences' in the 'Settings' menu. The Preferences dialog box opens. Enter values into the 'Horizontal' and 'Vertical' boxes. then Click 'OK'.


## Making An Exact Move

| Click on the 'Move' tool <br> icon on the Toolbar, |
| :--- |
| Select 'Move' from the <br> 'Manipulate' menu. |

(1)
'Absolute Values' are those you can read from the rulers.
'Relative Values' are measured from the present position of the object.

## Learning Guide

## Moving Objects Locking \& Unlocking Objects

The advantage of locking an object is that you can't select or move a locked object. This allows you to finalise the position of one or more objects, and then lock them in position. You may also want to lock a scanned bitmap and use it as a template for building a sign over the top of it. Any further editing you do will not change the position of these locked objects.


Locking also makes it easier to select small objects. When you select a number of objects by dragging a selection box over a part of your work, many large objects also will be selected. If you want to select only the small objects around the large ones, simply lock the large objects, and then click and drag the mouse over the selected area again.

## Learning Guide

## Moving Objects <br> Cutting \& Pasting

Objects can be moved between '.SBD' files by using the Windows Clipboard.
To cut an object to the clipboard, select the object and choose 'Clipboard Cut' from the 'Edit' menu or press "Shift" + "Del" together or press 'Cntl' + 'X'.
The object is removed from the screen but a copy of it is placed on the clipboard
To copy an object to the clipboard, select the object and choose
'Clipboard Copy' from the 'Edit' menu or press "Ctrl" + "Ins" together or press 'Cntl' + 'C'.

The object remains on the screen and a copy of it is also placed on the clipboard

To paste an object from the clipboard, select 'Clipboard Paste' from the 'Edit' menu or press the "Shift" + "Ins" keys together or press 'Cntl' + 'V'.

Both 'cut' and 'copied' objects can be pasted back onto the screen - either the same screen they came from or into another file.


## Cutting \& Pasting Text

Text can be brought directly into the program from other Windows applications using copy and paste.
1.

Select the text you wish to bring into this program from a writing program such as MS Word:

## The Quick Brown Fox

Select that program's method of 'Clipboard Copy' - usually found in the "Edit" menu and copy the selected text to the Clipboard.

Select 'Clipboard Paste' from the 'Edit' menu, and your text will be placed onto the Work Space as editable text in the original font and size but in the current palette color.

## The Quick Brown Fox

You can now apply any of the text editing features to your text.


If you open the Text Editor before selecting 'Paste' from the Clipboard, imported text will be placed at the cursor in the font, size and other attributes currently selected in the Text Dialog box.

## Learning Guide

## Moving Objects Copying to Other Applications

The Windows clipboard can be used as a quick method of transferring a graphic image from the program to other applications.

1
Select the objects you want to copy.
You can select any combination of text, vector or bitmap objects.
Choose 'Clipboard Cut' or 'Clipboard Copy' from the 'Edit' menu.


Open the application you wish to copy to. Select that program's 'Clipboard Paste' command often found in an 'Edit' or equivalent menu.
[10s
The graphic objects including text, will be placed onto the screen of the target application as a single bitmap at 72dpi for Windows applications but at set sizes for other applications.

## Copying from Other Applications

Some objects can be brought directly into the program from other applications using Clipboard copy and paste.

| You can copy vector objects from Adobe | Vector objects with flat color fills will copy <br> with colors and layers preserved. <br> Illustrator using Clipboard Copy and <br> Paste |
| :--- | :--- |
| correct cuttable outlines automatically. |  |

PAGE F6

## Making Groups Keeping Objects Together

Objects which you have imported or drawn yourself may be composed of many separate objects - each one individually selectable.


It would be easy (and annoying) to find that you had selected only a few objects when you wanted to move, scale or change many objects.


To keep all the objects which make up a section of your work together ...

Make certain you have selected all the objects you want to keep together.


Click the'Group' tool icon on the Toolbar or select 'Group' from the 'Arrange' menu.

You can include groups in larger groups. Each group of objects remains as a separate group even when inluded in a larger group. The information window lists the total number of both groups and objects selected. Three groups included in another group will be seen as '4 groups'

58 Objects Selected in 4 Groups

## Ungrouping

Clicking on any object will now select the whole group.



PAGE G1

## Learning Guide

Assigning Objects to Layers

You can place objects in layers on the Work Space.The five Arrange tool icons on the Toolbar allow you to control which objects are on top, or the order that they will be stacked.
You may also select each option from the 'Arrange' menu.


PAGE G2

## Learning Guide Schedule

## Editing Objects

Changing Size:
H1 Taller or Shorter
Wider or Narrower
Larger or Smaller
Exact Size Changes
Changing Slope or Skewing
Making an Exact Skew
Mirror Options
Exact Rotations
H5 Exact Rotatch'
H7 Combining \& Splitting Objects
H8 Using the Chop tool
H9 Using the Smooth Corners tool

## The Multi-Function T-Bar ${ }^{\text {TM }}$

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J1 Exact Rectangles
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J7 The Polyline Toolbox
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## Copying Objects

K1 Duplicating Objects
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L3 Using the Docking Toolbar
L4 Saving Favourite Colors

## Correcting Mistakes

M1 Using 'Undo' and 'Redo'
M1 Using Screen Redraw
Deleting Objects (see E3)

1
Select the object you wish to change.


Move the mouse pointer to a node in the MIDDLE of the top or bottom of the selection box.


The pointer becomes Grab the node and move it UP for taller or DOWN for shorter.

Adotted line shows the changing shape.


Release the mouse to complete the change.

## Wider or Narrower



Select the object you wish to change.


Move the mouse pointer to a node in the MIDDLE of either end of the selection box.


The pointer becomes ... $\rightarrow$ Grab the node and move OUT to grow wider or IN to grow narrower.


If you hold the
'Cntl' key, you will size equally around the object's centre. A dotted line shows the changing shape.


Release the mouse to complete the change.

## Learning Guide

 Larger or SmallerSelect the object you wish to re-size.


Click and hold a CORNER node of the selection box. The pointer becomes an ' X '.


Move the node away to grow bigger or inwards to shrink. An outline shows the changing size.


Release the mouse.
The object is redrawn at its new size and in the original proportions.


If you hold the 'Shift' key and then grab a corner node, you can place the node anywhere you wish, giving the object a new size and new proportions.

If you hold the 'Cntl' key, you will resize around the object's centre.


Making an Exact Size Change

(1)Click the 'Size' tool icon on the Toolbar or ...
Click 'Size' on the 'Popup Tool Palette or ...
Click the right mouse button on ANY selection box node or ...
Select 'Size' from the 'Manipulate' menu.


The 'Size' dialog box opens, showing the size of the selected object.

Size $Y$-Vertical $92.15 \sim$ Abs 100.00 \%

Keep Proportional
You may now change the width and/or height.
You can enter new values, or choose a percentage change. Remember to tick the 'Keep Proportional' box if you need to keep the original proportions.

You can also change both height and width of any selected object directly from the lower status window.
Click the up/down arrows to change by 5 mm a time or enter exact values into the entry boxes.
Tick 'Keep Proportional' to retain your object's original proportions


## Learning Guide

## Skewing Changing the Slope



Making an Exact Skew


PAGE H3

You may need to create a forward, or 'sunrise' shadow effect requiring a vertical mirror.
This program offers a number of mirror options ...

1
Select the object or group to be mirrored. Click the left T-bar button to mirror the object in the same space as the original, or follow the directions below...

2
Click on the 'Mirror' tool icon on the Toolbar or Toolbox, or select 'Mirror' from the 'Manipulate' menu. Click the right mouse button on the Work Space to open the Mirror dialog box.
3 Select the mirror mode you need.

OR.
You can create a mirrored image on a different angle.

4
Click 'OK'. The mirrored image is drawn.

$$
\sum \wedge \square \square
$$



$\square$ After selecting the 'Mirror Line' button Click 'OK'.
You can enter coordinates for the line or its angle or .

Click on the Work Space to place one end of the mirror line.

Move to reveal the mirror line and the mirror image of your object.

Click again to draw the mirrored image. If you ticked 'Leave Original' both are placed on the Work Space.

Click 'Select' to end



PAGE H4

## Learning Guide

## Exact Rotations

Although you can rotate any object very easily using the T-Bar, there will be times when you need to make a very accurate rotation - perhaps just 1.5 degrees - to exactly align a vectorised image.
This program allows you precise angle changes exact to 2 decimal places.


PAGE H5

## Learning Guide

## Using Stretch

If you need to alter the length of a border, dragging the width of its selection box would cause distortion of its corners.

To change the dimensions of a border:


Select the border.
Select the border.

Click the 'Stretch' tool icon on the Toolbar, or select 'Stretch' from the 'Manipulate' menu.


The 'Stretch' tool allows you to change the size or proportions of an object without distortion of its corners or alteration of the thickness of a border.



You may grab any node and drag it to form a new dimension. The corners will remain the same size, thickness and proportions. same size, thickness and proportions.

##  <br> (4)

Using Stretch to Change a Border's Thickness


Select the 'Measure' tool and measure the border thickness. Enter the desired thickness into the 'Length' entry box, and click 'OK'. The border will be redrawn with the new thickness but at a new size.


Use the 'Stretch' toolon a corner node to restore the original dimensions.
The corners will remain undistorted but will show the changed thickness.

## Learning Guide

When you combine two (vector) objects, all selected lines and curves are made into a single object with one color. This can be useful for editing nodes simultaneously in different objects, \& also viewing uniform color changes.


Note: You can use 'Combine Objects' to mask a bitmap object with a vector object. See 'Masking Bimap Objects'.


The objects are now combined, making manipulation easier. Note: Text is converted to curves.

## Splitting Objects

You may want to separate objects that you have combined or imported to give each object different outlines or fills. This is not the best way to undo a combine command, as various attributes maybe lost. If you have combined by accident, select 'Undo' from the 'Edit' menu.



Notice some attributes are lost, like the centre of the ' $a$ ' is filled. You will need to restore these changes by selecting each object \& choosing another fill color.

## Learning Guide

Editing Objects
Chop

The chop tool splits an object in two．This allows you to create stunning effects using different colors．

To perform a chop，choose the object you wish to chop，and use＇Polyline＇to draw a line across the object．The polyline must be open（i．e．must be a line with a start and finish）and must not cross itself．Select the object，hold down the＇Shift＇ key and select the polyline．Then choose＇Chop＇from the＇Arrange＇menu，or click on the＇Chop＇tool icon on the Toolbar．

本迢双

The original object will now be split in two．Viewing the object on＇Outline／WireFrame＇will show that there are now two separate objects．It is possible to apply different colors to each side of the border．


## Learning Guide

## Editing Objects Using the Smooth Corners Tool

You can apply any degree of smooth rounding to the corners of any vector object ...

1 Select an object whose corners you wish to smooth.

Select 'Smooth Corners' from the 'Manipulate' menu.


## Learning Guide

The Multi-Function T-Bar ${ }^{\text {m }}$

Inside the selection box that surrounds the selected object(s), you will see the 'Multi-Function T-Bar'm, a tool that can make much routine work easy. With this one tool you can Rotate, Mirror, Skew and Size.

The Multi-Function T-Bar ${ }^{\text {TM }}$ has four nodes.


Rotating Made Easy


Select the object to be rotated and place the mouse pointer on the top T-Bar ${ }^{\text {TM }}$ node.

The pointer becomes ...

Grab the node.

You may pull the node up to make it much easier to use.

Simply move the node in the direction you want to rotate. A dotted image shows the new angle.

The node 'sticks' at every 15 degrees and changes color, to make these commonly needed angles easy to see.

Press the 'Alt' key if you want
Release the mouse to complete the rotation. to rotate close to a 15 degree angle without the node 'sticking'.

As you rotate, the status window shows the new angle in degrees.


PAGE I1

## Learning Guide

## Rotating at Right Angles

Rotating by 90,180 or 270 degrees is probably the most commonly needed of all rotations.
This program makes right angle rotating very easy ...


Sometimes a sign or notice must be put on the inside of a glass door or window. For it to read correctly you need to cut a 'horizontal mirror image'. . .

(1) Move the mouse pointer to the left T-Bar ${ }^{\text {m }}$ node. The pointer becomes... $\Leftrightarrow$

2 The object is changed into its mirror image.

There are two more functions that you can use on the T-Bar ${ }^{\text {TM }}$.

(1)
You can move the centre node to form a new central point for your rotation.


Just grab the centre node and place it where you want the new central point to be.


You may also rotate as you change size. Thedotted box changes coloreach 15 degrees to aid in making common rotations.

Release the mouse to complete the up to grow larger, or down to shrink. A dotted image shows the changing size.

The top status window shows the change in size and the angle in degrees.


PAGE I3

## Skewing with Constant Width

The right T -Bar ${ }^{\text {TM }}$ node allows you to change the length, angle and slope of an object.


After selecting an object or group of objects, grab the right T-bar ${ }^{\text {TM }}$ node.


Move the node up or down. An outline shows the changing shape. The width stays constant.


Release the mouse to complete the change.

## Unconstrained Skewing



PAGE I4

## The T-Bar" ${ }^{m}$ and the Right Mouse Button

Clicking the right mouse button on the T-Bar ${ }^{\text {TM }}$ nodes opens each option window allowing you to make exact changes.


Exact 'Base Point' location for new centre or action.

## Summary of T-Bar ${ }^{\text {T" }}$ Options

## LEFT node

Horizontal Mirror

Mirror Options

TOP node
15 degree detented Rotation

| alt | Free Rotation |
| :---: | :---: |
| Control | Right Angle Rotation |
| SHIFT | Size From Centre and Rotation |
|  | Rotation Options |


| CENTRE node |
| :---: |
| Change Centre of <br> T-Bar Action. |
| Move Centre of |


| RIGHT node |  |
| :---: | :---: |
|  | Skew With Constant Width. |
| SHHT | Unconstrained Skew |
| $\bigcirc$ | Skew Options |

## Learning Guide

## Drawing Basic Shapes Rectangles and Squares




The pointer becomes cross-hairs. Click to place a corner. Move to the opposite corner - an outline shows the rectangle forming ...


Click to place the second corner. The rectangle is drawn. You may continue to draw rectangles or ...


Click 'Select' or press the 'Spacebar' to end.

## Making Exact Rectangles or Squares

Sometimes you need the draw exact rectangles or squares. This program offers many ways to do this ...
Click the Squares button.
Move to the Work Space and
click the Right Mouse Button.
The Rectangles dialog box opens.

## Drawing Basic Shapes Choosing Rectangle Corners



Holding the "Shift" key as you drag a rectangle will constrain the shape to an exact square Use the "Stretch" tool to change the height or width without distortion of the corners

## PAGE J2

## Learning Guide

Drawing Basic Shapes
Circles


The pointer becomes cross-hairs. Click to place the circle centre. Move the mouse ... a radius line forms with a size outline. Click again to set your circle size.


Click 'Select' or press the 'Spacebar' to end making circles.

You often need to be place circles at exact positions, or draw them to an exact size. In this program you can:


PAGE J3

## Learning Guide

## Drawing Basic Shapes <br> More Ways to Draw Circles

You can be draw circles in a number of different ways. You can choose the best way to suit a particular need.


Click the 'Circles' tool, or select 'Circle/Ellipse from the 'Draw' menu.

Move to the Work Space and click the right mouse button.

You may choose one of the three different modes of drawing a circle, Click 'OK' to begin placing points on the Work Space.

Drawing a circle
using the radius


Click to place the centre then move and click to set the radius.

The top status window shows both new radius and diameter values. how wide you need your circle. You can choose to draw using the diameter.


Click one side, move to the width you want using top status window values as a guide. Click the second point to draw the circle.

## Learning Guide

## Drawing Basic Shapes Elipses

Click the 'Circle' tool icon on the Toolbar, or select 'Circle/Ellipse' from the 'Draw' menu.
Move to the Work Space and click the right mouse button.

Choose the way you want to draw your ellipse, then click 'OK' to begin placing points on the Work Space.

The pointer becomes cross-hairs.
Click to place the centre of the ellipse.


Help hints are found in the top status window.


Move to place the second point. An image shows the forming ellipse.

Click again. The ellipse is drawn.
The top status window shows the dimensions of the ellipse.

The pointer becomes cross-hairs

Click to place the first 'corner' point.


Move to place the opposite 'corner'. An image shows the forming ellipse.


Click again to draw the ellipse.The top status window shows the dimensions.

2 The Circles dialog box opens.


You can enter exact values to draw an ellipse:



Examples:
Radius: 100
(Diam.: 200)
$\mathrm{Y} / \mathrm{X}=1 / 2(0.5)$

Radius: 50
(Diam.:100)

## Drawing Basic Shapes Hollow Shapes



Click the 'Circle' tool or select 'Circle/Ellipse' from the 'Draw' menu.

Move to the Work Space and click the right mouse button.

Choose the type of hollow shape you want to draw - either hollow circles or hollow ellipses.
Click 'OK' to begin placing points on the Work Space.


## Hollow Circles



The pointer becomes cross-hairs. Click to place the centre.


Move and click to set the inner circle.



The hollow circle is drawn.


Hollow Ellipses


The hollow ellipse is drawn.

PAGE J6

## Learning Guide

## Drawing Polylines The PolylineToolbox

Polyline lets you draw freehand an object composed of lines and curves. Polyline figures are made by drawing lines point by point, and then connecting them up to form objects


To use Polyline, click on the 'Polyline' tool icon in the Toolbar, or select 'Polyline' in the 'Draw' menu.


By clicking on the right mouse button while drawing a Polyline you will access the 'Polyline' Toolbox.


Turns the polyline into a closed object by drawing a line from the last node to the first.


The pointer becomes cross-hairs. Click at the first point, move the mouse and click at the second point. You can continue clicking to add as many lines to your object as you like.

## The 'corner', 'curve' and 'tangent' buttons select the type of nodes you can create.



Ideal for joining straight lines.


Sets node type to curve, and determines the curvature.


Creates a smooth join between a straight and curved line.

Tip: Press the 'C' key to change node type.
 Lets you edit the polyline figure as it is
using the normal node edit keyboard
ands. In particular paths can be joined Lets you edit the polyline figure as it is
using the normal node edit keyboard
nds. In particular paths can be joined Lets you edit the polyline figure as it is
using the normal node edit keyboard
commands. In particular paths can be joined by pressing 'J' on the keyboard.

Leaves the current polyline drawing, and starts another one when the next node is placed. NOTE: If you don't choose close, your drawing won't appear with a fill color.

Removes the last positioned node.


REMEMBER : Any open polyline path is useless for cutting, you must use the 'Close' tool, or select 'Join' while using 'Node Edit' on the Toolbar.

## Learning Guide

## Drawing Basic Shapes <br> Drawing Polgons

(1) Select 'Polygon/Star'from the
 the number of equal sides you want the polygon to have.


Click on the Work Space and drag the crosshairs to form the size and angle you want.

Click again to complete the drawing in the currently selected palette color.
(5)


You may draw more shapes or click 'Select' or 'Spacebar' to finish

## Drawing Stars



You may draw more stars or click 'Select' or 'Spacebar' to finish.

PAGE J8

Drawing Basic Shapes Drawing Arrows

Although there are many arrow shapes to be found in the Program's Library you can draw an arrow to your own specifications in a few simple steps.


PAGE J9

## Drawing Basic Shapes

 Drawing DimensionsIncluding dimensions with your work provides customers with useful information and a professional appearance.


Click the Right Mouse Button on the Work Space to open the dialog box.


Select the Style, Font, Type size, and Format you want to use. Select 'OK'.

To draw a horizontal dimension, move the crosshairs to align with the left of an object and click on the Work Space above it.

FOR SALE

Drag and align to the right side. Click to set the width. Move up or down to draw extension lines. Holding the 'Shift' key will make them equal.

Click to draw the dimension. You can change its color and move it like any screen object. To have it print, tick the box "Print Dimensions items" in the Printer Dialog window.


To add a vertical dimension, click the Right Mouse Button and select the 'Vertical' style. Click the crosshairs aligned to top and bottom of the object. Move horizontally to add extension lines and click to draw.



To add descriptive labels, click the right Mouse Button and select 'Label'. Click on the Work Space to start an arrow line and drag. Click again to draw a second section to the line.


Click again to open the 'Label Dialog Box' and enter your text. Select 'OK' to draw the label.


PAGE J10

## Drawing Basic Shapes Using the Grid Tool

Graphical presentation of a number of items might include arranged 'boxes' or a 'grid'. Drawing a grid of any size or proportions and any number of boxes is easy using the 'Grid' tool.

## 1

Select the 'Grid' tool from the Toolbar or choose 'Grid' from the 'Draw' menu.



To choose new grid settings, open the 'Grid Tool' dialog box by clicking the Right Mouse button on the screen.

Enter your choice of the number of rows and columns into the entry
(3) boxes.
Enter the grid thickness you want into the lower entry box.

Click 'OK' to start drawing a grid.


## 4

Click on the screen to place the top left corner of the grid.

Drag the 'cross-hair' pointer to place the bottom right hand corner and click again.

You can draw another grid or click the right mouse button on the screen to reopen the dialog box and change your selections.

## Learning Guide

## Duplicating Making a Single Copy



Select the object you wish to duplicate.


Click the
'Duplicate' tool on the Toolbar or 'Edit' menu.


The duplicate appears and is the new selected object. It will be offset from the original by the values in the Preferences 'Duplicate Position' box.


You can choose a new color for the duplicate to make a simple 'drop shadow' effect.

You can choose where your duplicates will be drawn on the Workspace.


Click the 'Prefer' tool icon on the Toolbar or choose 'Preferences' from the 'Settings' menu.

You can set the number of decimal places you need for the degree of precision required.
Enter your offset values into the 'Duplicate Position' boxes. Click 'OK'.
$+$
You can place your duplicate directly on top of the original - just press the "+" keyboard key

## Replicating <br> Making Many Copies

Making many copies would be tedious if each had to made as a duplicate and then moved. This program makes multiple copies easy ...


Select the object to be copied and click the 'Replicate' tool icon on the Toolbar or select 'Replicate' from the 'Edit' menu.


The pointer becomes cross-hairs Click on the selected object then move to place the first copy. An image and movement line shows the move.. Just click ...


Continue to move and click to draw all your copies ...


Click 'Select' or press the 'Spacebar' to stop replicating.

PAGE K1

ColorWhiz ${ }^{T M}$ is: a unique system which organises color into palettes relating to moods, tones and themes as well as the complete color spectrum, base colors and grey tones.


Greys

| Yellow-Red |
| :---: |
| Red-Magenta |
| Magenta-Blue |
| Blue-Cyan |
| Cyan-Green |
| Green-Yellow |


Changing an Object's Color

If the object is part of a group you can first click on 'Ungroup' to separate the objects.

2 Select the single object to be changed.
Choose the palette which contains the new color.
3 Simply click on the color you want.


PAGE L1

## Using Color Whiz Creating Custom Colors

It is easy to create a color of your own using 'Color Adjust'. You can change the percentage values of color components using either the 'RGB', 'HLS' or 'Gray' systems of color description..


First, double click on a color from one of the two color palettes along the bottom of the SignBlazer screen in the position that you wish to create a new color.
The 'Color Adjust' dialog box will appear:


Displays the selected color in a percentage of black to create a distinct grey tone. Adjusting the scroll bar to the left will create a darker grey, and a lighter grey if scrolled to the right.

Once you have created a new color, you can save it in place of the color you originally selected by simply selecting "OK" OR you can save the color to a new pallette.
To create a new pallette for your new color, simply enter a name into the "Color Pallette Setup"
text box and select "Save". Selected Color pallettes can also be removed by using the
"Delete" button

PAGE L2

## Learning Guide

The 'Favorite Colors' tool is available to capture and store colors, color gradients and textures used in your drawings. It is quickly and easily accessed from the 'Docking Toolbar'.

Opening and Closing the Docking Toolbar


Move your mouse pointer onto the edge of the Docking Toolbar.


The edge will glow and the 'Favorite Colors' icon appears.



Click on the Toolbar edge and the Toolbar will open onto the screen.



To close the Toolbar, click on any edge. The Toolbar will dock to its previous location.

You can locate the Docking Toolbar anywhere along the bottom edge, sides or even the top edge of the screen work area.


Click the left mouse button on the Docking Toolbar and hold the button ...
(2)

Drag the mouse... A red wire-frame of the Toolbar forms. Drag the frame to where you want to relocate the Toolbar and release the mouse.


PAGE L3

The 'Favorite Colors' tool is available to capture and store colors, color gradients and textures used in your drawings. It is quickly and easily accessed from the 'Docking Toolbar'.

## Creating, Saving and Deleting Groups



## 3

The group will be named from the name of the file you have open. You can save the group by another name if you want to. Enter a name into the entry box. Click on 'Save'.

Click on 'Delete' to remove a group you no longer need.

To remove a color click Right Mouse button on it and click the 'Delete' option.


## Adding Colors to a Group



Using Favorite Colors


Choose a 'Favorite Colors' group from the Group list.

Select a vector object on the screen.

Click on a solid color, gradient or texture from the group window to fill the object.

Selected gradient fills can also be opened in 'Fill Attributes' and edited or saved.

## Learning Guide


1.

You may continue to press 'Undo' to move backwards through the work you have done.

You can also "undo" an 'Undo' operation. This is called 'Redo'. The 'Redo' function allows you to move forward through a history of 'Undo' operations - or you may want to simply review "before" and "after" views of your work.

To perform a 'Redo' you can press 'Cntrl' + 'Alt' + 'BkSpc' or click the 'Redo' tool on the Toolbar or select 'Redo' from the 'Edit' menu.


## Using Screen Redraw

Some video controllers occasionally leave line fragments or other parts of a drawing incorrectly on the screen ...


PAGE MI

## Learning Guide Schedule

## Typing and Editing Text

N1 Typing Text in the Work Space Selecting Text Attributes:

- Font
- Text Height
- Compression
- Slant
- Justification
- Superscripts \& Subscripts
- Case Mode
- Bold and Italic Fonts Using 'Setup' to Store Selections
Spell Checking
Setting:
- Character Spacing
- Line Spacing
- Line Length
- Tabs

Changing Blocks of Text
Moving Individual Characters
Changing Character Attributes
N10 Creating/Editing Font Groups
N11 Saving Kerning Pairs
N11 Splitting Text Lines
N12 Placing Text on an Arc -1
N13 Placing Text on an Arc-
N14 Typing Extended Characters

## Typing Text Onto The Screen

When typing and you want to change any details of the font used for text entry, Press 'Ctrl'+'T' or select 'Text Dialog' from the 'Text' menu or
simply click the Right mouse button on the Work Space.
The Text Dialog window opens. Make any necessary changes to the font settings and resume typing with the new settings.


The window will close again as soon as you start to type a new block of text but can be reopened at any time to change settings. You can close the window by clicking the top left icon and selecting 'Close'

Click on the Work Space at the place you want to begin typing. A vertical blinking cursor will indicate where your text will be entered.

In order to keep text from going off screen, start typing on the left of the screen for 'Left' aligned, at the centre for
 'Centre' aligned and at the 'Right' for 'Right' aligned text.

Begin typing directly onto the Work Space ... your text appears in real time as you type - in the color, font, style and size last selected in the Text Dialog window. The cursor moves to indicate where the next character will be placed.

## Type directly onto the screen

During typing, you can use keyboard keys to edit or move around the text - 'Backspace' to remove a character to the left and 'Delete' to remove one to the right of the cursor. Arrow keys move the cursor in each direction.
'Home' and 'End' move the cursor to the start and end of a line
'Return' starts a new line and 'Shift' enters upper case.


You may click on another place on the Work Space to start a new

nelumt stans a lew ime altu simt emers upper cáse. block of text or click the 'Select' button to finish entering text.

# Entering Text Choosing Fonts and Attributes - 1 

If you want to enter text in a different font, character height or other attributes to those currently selected, you will need to make changes in the Text Dialog window.
$\qquad$


Press 'Ctrl'+'T' or select 'Text Dialog' from the 'Text' menu or
select the 'Text' tool on the Toolbar or 'Text' from the 'Draw' menu and click the right mouse button on the Work Space.

2 Choosing A Font
Click the list arrow box.
A drop-down listing appears.Use the scroll bar or arrow buttons to scroll through the font list.
A sample of the highlighted font is shown in the top window. You can choose the Alphabet, or type your own sample in the entry box.
You can also use the Up, Down, Page Up and Page Down keys to move the highlight to different fonts.


Click a font name to select it or press the 'Default' button to choose the font stored as default. You can choose any font and save it as your default font along with a height, compression etc. by pressing the'Save as Default' button.

You may change to a new font selection at any time while typing.
1.5

Selecting text you typed before shows the font you used in the status window.

## Changing Compression

Changing Compression squashes or stretches your text. $100 \%$ is normal text with no compression.


Enter a value into the 'Compression'box and press 'Enter'. measured by the height of the capital ' $X$ ' of the selected font.

You may enter a height value into the entry box and press 'Enter' or ...
Click the up and down arrows to change the current value by 5 mm at a time or ...
Click the large list arrow. A drop-down listing of your last 10 height selections appears. Simply click the height you want.


You may change to a new text height at any time while typing onto the Work Space.

## 4 Choosing a Slant

You may type oblique text by changing the Slant angle. A new angle may be entered at any time during typing.
Text on a slant gives emphasis.
Enter the degrees of slant required into the 'Slant' box and press 'Enter'. 12 deg. is commonly used for 'italic' text.

PAGE N2

# Entering Text Choosing Fonts and Attributes - 2 

6

## Selecting Text Justification

Text Justification - or the way a text block lines up- you can be chose from 3 options:

LEFT
The quick brown fox jumps over the lazy dog.

CENTRE
The quick brown fox jumps over the lazy dog.

RIG HT
The quick brown fox jumps over the lazy dog.

Click on a button to choose the type of text justification you want.



## Selecting Bold or Italic Fonts

Some TrueType fonts exist in groups of 'Normal, Bold, Italic, Bold Italic'. If the highlighted font is grouped then the 'Bold' and 'Italic' buttons become active.

Clicking 'Bold' and/ or 'Italic' will then select the correct font attribute.

## Typing Superscripts and Subscripts

(7)
Superscripts are smaller characters placed along the top line of your text such as in:

$$
E=m c^{2} \quad \text { TrueSig } n^{T M}
$$

Subscripts are smaller characters placed slightly below the text baseline as in:


Type text up to the super/subscript, then click the super or subscript button. Type the required characters, which will appear on the Work Space at the correct size and place.

Click the same button again to return to normal typing.

## Choosing a Capitals or 'Case' Mode

Click the list arrow to reveal the Caps Mode drop-down list. Click on a mode to choose it. The mode operates automatically as you type.

Normal keyboard operation.


## Learning Guide

## Entering Text Choosing Fonts and Attributes - 3

## 12 Using the Spell Checker

Click the mouse on the block of text to be spell checked. Click the 'Spell' button.

Words which are not found in this program's Dictionary will change color. A list of possible corrections will appear in the Spell Check 'Alternates' window and the most likely of these appears in the 'Replace with' box.

## (13) Setting Character Spacing

You can choose either a quick character spacing mode, or accurate manual spacing control.
Click on the 'Char/Line spacing ...' bar to open the dialog window.
Click the list arrow to reveal a drop-down list of convenient spacing modes. Select a mode.


Normal Spacing Wide Spacing Close Spacing Letters Touching LEIIESOMTLAFPNG

If the correction you want is not displayed in the 'Replace with' box, scroll through the 'Alternatives' list. Click the correction you want.

## Peplace

Click Replace to correct the word.

## Anplasn AII

 Click Replace All to automatically correct additional occurrences of the same error in the rest of the same text block.Some text may include the date, or numbers, or other non dictionary characters. Click Skip to ignore a single item, or Skip All to ignore repeats in the same text block.


More precise spacing adjustment can be made by entering a value in mm . into the 'Add Space' box.

20mm. text

- Add Space 0mm The Quick Brown Fox Jumps ...
- Add Space 5mm The Quick Brown Fox Jumbs ..
- Add Space -1mm The Quick Brown Fox Jumpe...

You may choose to individually change character spacing or the space between words. Clicking 'All' adjusts both char. and word spacing together.
Uncommon words can be added to the dictionary by clicking Add to dictionary.

To spell check text you are not editing, select 'Spell Checker' from the 'Text' menu, click the desired option, then press 'OK'.


The Quick Brown Fox Jumps ... |
Click the 'Close' bar to end char/line spacing. <br> \title{

## Entering Text <br> \title{ \section*{Entering Text <br> <br> <br> Choosing Fonts and Attributes - 4} 

 <br> <br> <br> Choosing Fonts and Attributes - 4}}

## Setting Line Spacing



Click the 'Char/Line Spacing ...' button.

The Char/Line Spacing dialog box opens.

In this program the terms applied to text and line measurement
 are defined as:


You may enter a required line spacing into the entry box or click the up/down arrows to change the value 5 mm at a time.

Alternatively you may enter or change the Leading value. Line spacing values will automatically update.

Click the 'Close' bar to end.


## Setting Line Length

You may need to set the length of a line of text to exactly fit some feature of your work.
Select the line whose length you need to set. The line length is displayed in the Line Length box.

## Practice makes perfect



Lock the line length by clicking its 'Lock' box. Enter your required length into the Line Length box and then press 'Enter'. The text Height will change to keep the text line proportional.

## Practice makes perfect



If you lock both length and height, you may now set values in both the length and height entry boxes, and press 'Enter'. The compression will now change to reflect the changes.

Practice makes perfect

If you lock both the length and compression, you may enter length and compression values into their entry boxes and press 'Enter'. The text height will now reflect the changes.

## Practice makes perfect

If you lock the length, height and compression, you may enter values into all their entry boxes and press 'Enter'. The inter-character spacing will alter to reflect the changes.

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## Learning Guide

## Entering Text Using the Tab Feature

Laying out your work when 'tabular' text is required, is made easy by using the 'Tabs' feature.
For instance, you may need to set out opening times and activities in tabular form ...
The Tab feature is only available when your text is "Left Justified"

1
Before typing the text, open the Tab Settings dialog box and enter some values. You do not need to know the exact values required - you can edit your tab locations after typing.


The Tabs will appear along the ruler margin when you start to type. Each one marks the position of the next 'column' your text can be aligned to.


Having typed 'Monday', press the 'Tab' Key to move the cursor to the next tab position. Text will now be entered aligned to the tab position as you continue to type. After typing '-5:00pm' press 'Tab' again to move to the next tab position.


After typing your text, you can grab any tab with the mouse and move it to suit your needs. The text will move to remain aligned with the tab

## PAGE N6

## Learning Guide

## Editing Text Changing Blocks of Text

You can change the font, styles and attributes of complete blocks of text with the minimum of movements, and see the changes instantly on the Work Space:

1
You can first select the text block to be edited if you wish.

There is a tide in ?he affairs of men? *Which, taken at the flood. leads on to fortune:


Press 'Ctrl'+'T', or select 'Text Dialog' from the 'Text' menu'
OR double click on the text you want to edit The Text Dialog window opens.


## Moving individual letters

Each character in a block of text will appear with a node to the left of it.
$\xrightarrow[\text { Any character can be moved by holding its node with the mouse }]{\text { Mot }}$

Click on the text to select it.

Select 'Edit Text' from the 'Edit' menu,
or select the 'Node Edit' tool from the Toolbar. and dragging the node.

## Moving individual letters

Each text block will also have two nodes.

Line Spacing node

## Changing Character/Line Spacing

Changing inter-letter spacing and line spacing

Character Spacing node.
(7) -Changing "Character "Spacing Dragging the Character Spacing node left or right changes the spacing between both words and characters.
 dragging the same node will change only the spacing between words.

Changing Infer-Iefter Spacing
SHIFT By holding the 'Shift' key, dragging the same node changes only the spacing between characters.

## Learning Guide

## Editing Text Changing Characters

You can add, delete or change the font, style or attributes of any character or group of characters, in any block of text.


2 Adding or Deleting Characters
Click on the text at the place you want to edit. The text cursor will appear at the margin of the nearest character.
TO BE, OR/RRNOTTO BE, ..

You may now move the cursor with the arrow keys, type in more text, or delete existing text at the cursor position.
TO BE, ОЯNOTTO BE, ...

Changing a Character's Attributes

Click on the text block to be edited and open the Text Dialog window.

## Signblaker

Click and drag a selection box around the character to be edited. Signiblazer

The character's color changes to indicate selection.

Signlblazer

Click 'Caps Mode' Upper to change the case to a capital character.
Signiflazer|

Click the 'Select' button to end.

SignBlazer|

Changing Character Font, Height \& Slant.
Click on the text block, open the Text Dialog window and draw a selection box around the characters to be changed.
Have a nice day!

Click on a new font from the font list. Choose a new text height and enter a new slant value into the entry boxes.
The selected text changes on-screen and character spacing is automatically adjusted.
Click 'Select' to finish text editing.

PAGE N9
Have a nice |lay|

Have a Micelday
Have a hice day:

## Learning Guide

## Entering Text Creating Font Groups

Font groups are a useful way of managing your fonts. You may group fonts into serif, sans serif, script, making it easy to search for a particular style. Alternatively, you can group them according to their use, for example: 'Real Estate', 'Windows', 'Block Headings'.

To create or edit font groups you need to have the Text Dialog window open:


The Text Dialog window will
2 appear. Select the 'Edit Groups' button. The Font Group Edit Dialog box will appear.


Press 'Ctrl'+'T' or select 'Text Dialog' from the 'Text' menu.

Select the fonts you want in this group by clicking on their names in the 'Available Fonts' list, and clicking on: u-Add To remove fonts from a group, simply select the fonts and click on: Renown->>

## Changing Sample Text

## Removing a Font Group

Select the font group you wish to remove by clicking on the - arrow. From this list select the group you want to remove and click on the Date button.


Click in the small white box to the right of the sample, and type a new Sample. To reset the sample, click on:

```
                                    A0Bbtyzz
```



## Editing Font Groups

To add or remove fonts from a group at a later time is easy. Simply select the group from the 'Group Name' list, and add or remove them as in step ' 4 '.

## Typing and Editing Text Save Kerning Pairs

Kerning is the spacing applied to pairs of letters to make their appearance in words look more even.

For instance: Without kerning, the areas between letters can make words like 'VAULT' look very uneven.


You can alter existing kerning pairs and save them for all future use of a particular font.

Type the pair of letters in the font to be changed on the screen using the 'Text' tool and click 'Select' to finish typing.

Drag the nodes to give the spacing
3 you want and click 'Select' to finish. You can change letter spacing in any blocks of text - but be careful to change only the letter pairs you intended.


With kerning applied to 'V,A' 'A,U' and 'L, T' letter pairs, the word appears VAULT more even.

Select the text and click the 'Node Edit' tool or select 'Edit Text' from the 'Edit' menu.
A node will appear to the left ot each letter

You can undo kerning changes BEFORE YOU SAVE THEM by selecting the changed text while in 'Text' typing mode and pressing 'Shift' + 'Delete' to cut it to the clipboard. Then, still in 'Text' typing mode, press 'Shift' + 'Ins' to paste it back to the screen without the changed kerning.

# Splitting Text Blocks Into Lines 




The boy stood on the burning deck

Select individual lines for independant treatment.

PAGE N11

## Learning Guide

## Placing Text on an Arc-1

## (1) <br> rextortan arc

Select the text you want to place on an arc.


Click the 'Text Arc' tool icon on the Toolbar, or select 'Text Follow Arc...' from the 'Text' menu.


The Follow Arc dialog box opens and the selected text will be redrawn onto the arc of a circle using the last values chosen.
You may now choose new values if required.

...or counter clockwise


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## Learning Guide

## (9) Rotating the Text Node



If you drag the top node in an arc, the node will snap to new positions at right angles to the original position and carry the text with it.


By holding down the 'Shift' key you may drag the top node in an arc and change the angle of the node to any new position. When you release the mouse, the text will be redrawn to the new node angle.


The arc radius is not fixed during rotation, and may need to be reset. You may drag the radius to align again with the text baseline, before releasing the mouse. Alternately, you can reset the length in the radius entry box.

## (11) <br> CONTROL <br> Using the Control Key

The centre node may sometimes be hidden when the arc is large or forms off screen. By holding down the 'Control' key, the top node can be used to move the text and the arc in place of the centre node.


## Typing Extended Characters

The Windows operating system can only install a limited number of fonts (usually <1000 depending on font name lengths). All your SignBlazer fonts are available at all times and are not 'installed' in the Windows Fonts folder but are loaded in the 'SignBlazer5\sbfonts' folder. There is no limit to the number of SignBlazer fonts you can have available to the program. Additional TrueSign ${ }^{\top M}$ font packs can be downloaded from the Blazer web site as they become available.

Whenever you open the Text Dialog box, all the characters in the selected font are available for display in the information window.

Use the scroll arrows to view all the available characters including accented characters and symbols. Some fonts also carry different forms for the same letter - these can also be viewed in the same window.

Once you have clicked on the Work Space to start typing you can click on any character in the information window and it will be typed directly at the cursor position.


You can also use the more complicated Windows keyboard codes for extended characters if you wish.


Additional letter forms included in some fonts cannot be seen using this method.



In TEXT mode, hold the 'Alt' key down and then type the four digit character code on the keyboard number pad.

À à Á á Â â Ã ã Ä ä Å å
$\begin{array}{lllllllllll} & 0192 & 0224 & 0193 & 0225 & 0194 & 0226 & 0195 & 0227 & 0196 & 0228 \\ 0197 & 0229\end{array}$
 019802300190902102000232020102330202023402030205 ì ì í í î î ï ì $\tilde{\mathbf{N}} \tilde{n}$ ò ò 02240236025502702206038020702390209024102100242
 0211024302120240220245021402460216024801400156 Š š Ù ù Ú ú Û û Ü ü Ÿ $\ddot{y}$ $\begin{array}{lllllllllll} & 0138 & 0154 & 0217 & 0249 & 0218 & 0250 & 0219 & 0251 & 0220 & 0252\end{array} 0159 \quad 0255$


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## Learning Guide Schedule

Image Controls01 Scanning Images02 Color Reduction
03 Color Invert
03 Resample
04 Masking Bitmap Objects
04 Reverse Masking
05 Vectorise
06 ImageCut
07 Photo Fix
08 The Mode Tool
09 The Crop Tool
010 The Rasterize Tool
Aligning Objects
P1 Using The 'Align' ToolAligning to the Grid (see F2)Aligning to Guidelines (see B6)Aligning Nodes (see BB4)
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Q1 Rectangular Arrays
Q1 Making Repeat Object Borders
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Using the Measuring Tool
R1 Lengths and Scaling
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Drawing Borders and Panels
S1 Basic Borders
S2 Borders with Ornate Corners
S3 Basic Panels
S3 Ornate Panels

## Drawing Using the Library

T1 Using the Graphics Library

## Creating Distortions

U1 Vertical Bezier Distortion
U2 Horizontal Bezier Distortion
U3 Fit to Arc (Clockwise)
U4 Fit to Arc (Counter Clockwise)
U5 Fit to a Globe
U6 Linear Distortions
U7 Perspective
U8 Vertical Arch Distortion
U9 Horizontal Arch Distortion
U10 Fit to Cylinder
U11 Flag Distortion
U12 Warp Distortion
U13 Arch 2 Distortion
U14 Twirl Distortion
U15 Vertical Ridge Distortion
U16 Horizontal Ridge Distortion

## Fill Effects

W1 Fractalise
W2 Color Blend
W3 Color Medley
W4 Fill Attributes
W5 Textures
W6 Drop Shadow
'Hand Tooled' Characters (see V5)
W7 Special Effects
W8 Linear Transparency
W9 Color Transparency

## Learning Guide

## Image Controls Scanning Images

To place a hand-drawn picture or photo on your work, it will have to be scanned in. Scanners convert images into formats that the computer can manipulate.


A scanner dialog box will appear. Each brand of scanner will have a different looking dialog box. For information on how to use your particular scanner, select 'Help' when the dialog box appears or see its manual. If a 'Scanner Setup' dialog box appears, your scanner configuration has changed, or was not correctly installed. Contact your scanner supplier for technical support.

After following the scanning procedure in the dialog box, the scanned image will appear directly on the screen.

## Learning Guide

## Image Controls Color Reduction

Colored Images that you bring into this program are often composed of many colors. In order for these images to be cut, you need to be reduce the number of colors. Four to eight colors are desirable. Note: A white or black background is also a color.


PAGE O2

## Learning Guide

The 'Color Invert' command reverses the colors of an image. For example, black parts of the image are made white. Note: Images created in this program are vector based, and you can't invert them unless you export and save them in another bitmap format like 'EPS', and then import them for inverting.

(1)

## Image Resample

The 'Image Resample' command changes the detail of an image by changing its resolution. Note: Images created in this program are vector based and cannot be 'Resampled'.


To 'Resample' an image select it. Then click on the 'Resample' tool
 icon on the Toolbar or select 'Resample' from the 'Image' menu.

Remember: Images with a lower resolution use less disk space, and working on the image is quicker. Once you have chosen the values select 'OK'.


The Image Resample dialog box appears. The current resolution of the image is displayed. To change the resolution simply type in the new values you want to use. If the 'Keep Proportional' box is selected the other dimension will be calculated for you.


## Learning Guide

## Image Controls Masking Bitmap Objects

One way you can use the combine function is to mask a bitmap object.
Note: You must have 'Full Render' selected in the 'View' menu for results to be seen correctly on the screen

To mask a bitmap object, place a vector object in front of the bitmap. The color of the vector object does not matter, it will be ignored. Select the objects, and then choose 'Combine Objects' from the 'Arrange' menu, or press the 'Combine' tool icon on the Toolbar.


Before Combining Objects


Final Result

You can also create a reverse mask effect. If you have used a vector object to mask a bitmap object with the 'Combine Objects' function, you can use 'Reverse Mask' to make the vector object 'punch through' the bitmap, as pictured below.


1) Select the object that you masked with the combine command.
2) Select 'Reverse Mask' from the 'Image' menu, or press the 'Reverse Mask' tool icon on the Toolbar. The mask will be now be reversed.


Masked Bitmap


After Reverse Mask

## Learning Guide

Once you have scanned an image into your computer, you need to change it into a format that can be recognised for cutting.Just as graphics, shapes and text you create are made of vector outlines, so too must any image you scan if you want to be able to cut it. This process is to 'Vectorise' an image.You have a great degree of control over the way images are vectorised, but also it is easy for people unfamiliar with the process to achieve high quality results efficiently.


## 3

The Color Reduction dialog box will appear. If you would like to reduce the number of colors in your image, choose the settings you require and press 'OK'. If you don't wish to alter the number of colors, press 'Cancel'. The Vectorise dialog box will appear.

## Setup

Click on the $\lrcorner$ button to select various settings for different images. Look at the quality and type of image. Is it mostly lines or curves? Several examples are given with each setting. Selecting the right setup will produce very accurate results.


## Color Vectorisation

If the vectorise process results in some white space between overlapping objects, you need to select 'Overlay Colors'. If however you wish to save vinyl, selecting 'Inset Colors' will discard parts of objects hidden by overlapping.

Once you have chosen the settings, select 'OK' to vectorise the image. NOTE: The original image will be left underneath the vectorised image, and will be the selected object. You to can move or delete it.

## Learning Guide

ImageCut is a powerful method for reproducing photographs on vinyl. ImageCut converts photos (including color photos) into a series of horizontal stripes which can be cut using a vinyl cutter. ImageCut can also place weeding tags on each stripe to make weeding easy.

Once you have scanned or imported a photograph, select it and choose 'Image Cut' from the 'Image' menu. The 'Image Cut' dialog box appears:

## Output Size

Sets the size the image will be on your sign. While you can change dimensions here, it is recommended these boxes be used to see the dimensions, as the other variables create the output size. For example: if you import a square you must have a square output. Note: The height of the output is always the number of stripes times the stripe width.

## Minimum Black \& White

Minimum black sets the width of the stripe and minimum white sets the space in between the stripes. The lower the setting the sharper the picture, having the settings too high reduces the resoulution. The $\mathbf{0 . 2 0}$ default is usually sufficient, and makes weeding easy.

Note: Increasing the black width makes the image darker, increasing the white width makes the image lighter.


## Number of Lines

Selects the number of stripes the output will have. More stripes creates more detail, but makes weeding harder. Generally 40 lines for low detail or 80 lines for a highly detailed photo is enough.

## Line Width

Sets the vertical width each stripe works within. This will largely depend on the other settings you choose.

## Color

You can create full color photographs using special translucent vinyls. Click on this box and four separate CMYK versions will be generated for cutting. Notice the different angles of each color, and be carefull with registration.

## Weeding Tags

Puts tags on left, right, neither or both sides of the graphic to make weeding easy.

Click 'OK' to cut the picture once you have selected the settings. The image will appear towards the bottom left corner of your sign ready for cutting.


PAGE 06

## Learning Guide

Photo Fix is a most comprehensive collection of tools placed into a single toolbox which allows the beginner and expert alike to make all the adjustments necessary to print professional quality bitmapped photographic reproductions


In order to understand the use and effects of the range of image controls available in Photo Fix you can open the sample files provided with the program. Each file shows a "Before" and "After" photo image and gives the name of the default setting used to achieve the results.
The sample files are found on your installation CD and are named:
PHOTOFIX-1.SBD PHOTOFIX-2.SBD PHOTOFIX-3.SBD and PHOTOFIX-4.SBD

## Image Controls Mode Tool

The "Mode" tool lets you convert a bitmap into the 'color depth' best suited for an application. The greater the depth the more information must be stored the describe each bitmap picture element. Smaller depths create smaller file sizes but fewer colors can be represented.


To convert a bitmap to a different color depth, select the "Mode" tool from the "Image" menu. A menu fly-out will open. Color depths available for the selected bitmap will display as solid.

1. Select 24 bit for full color Largr Format printing.

Select 'Grayscale' for color representation on black and white printing. Indexed 4 and 8 bit create small color files useful for Internet publication. Monochrome ( 1 bit) bitmaps can be vectorised for vinyl cutting.

## Converting Color Images into Monochrome (1bit)

Color images including photos can be reduced to monochrome (1 bit) bitmaps which you can then vectorize for single color vinyl cutting.
Select the color image. Select "Mode" from the "Image" menu and select "Monochrome - 1 bit" from the fly-out.


Convert image to monochrome (1bit per pixel)

A window with a threshold level will open.
Moving the threshold to the right causes lighter colors to convert to black.
Moving the threshold to the left converts darker colors to white. Click "OK" when the degree of detail or level conversion is correct.
You can vectorise the monochrome bitmap for single color vinyl cutting.
If you want a multiple color vinyl image, use the "Color Reduction" tool rather than the "Mode" tool.

## Learning Guide

## Image Controls Cropping Bitmap Objects

The "Crop" tool allows you to select the area of interest in a photograph or other bitmapped graphic and crop away the areas not required.


Drag the sides or corners of the cropping box to the size and area you wish to keep. Everything outside this box will be discarded.


You can also click
your mouse inside the cropping box and drag the box to any location on the bitmap

Click on "Select" to crop the bitmap.
Everything outside the cropping box will be discarded (cropped).
. Use the "Mode" tool on the "Image" menu to change the bitmap depth or the "Resample" tool to choose a new resolution.

## Learning Guide

## Image Controls Using the Rasterize Tool

The "Rasterize" tool allows you convert a vector drawing or object into a bitmap. This is the reverse action to the Vectorize tool. You may need to place a bitmapped representation of vector objects into documents for publication in a desktop publishing application or pages prepared for a web site.


Select the vector object you wish to Rasterize
Select "Rasterize" from the Image menu ...


Vector Clipart


Enter a value for the number of pixels you want your bitmap to have either horizontally or vertically, into the "X" or "Y" boxes. (These are not 'screen' pixels or 'dots per inch', but the number of elements the vector object will be divided into to make the bitmap).

Smaller values will create bitmaps which use less memory but show more pixelation, i.e. looks more 'jagged'. Choose a value which creates a bitmap which looks smooth at the size at which it is to be displayed.

Tick "Keep Original" if you want to keep a copy of the vector object as well as create a bitmap.

The bitmap which is created has a depth of 24 bit color. You can reduce the memory size of the bitmap object by using the "Mode" tool if you need to.
If the bitmap is for use as a monochrome object it can safely be reduced to a "1 bit" depth or where a few basic colors are displayed, 4 or 8 bit depth may be satisfactory.

## Learning Guide

## Using The Align Tool

1
Select the objects you want to align. These may be text, shapes symbols, panels etc.


Click the 'Align' tool icon on the Toolbar, or select 'Alignment' from the 'Arrange' menu.

## 3

The 'Alignment' dialog box opens.


## 'Grid' Alignment

You may choose independently to align horizontally or vertically. Click an alignment for each direction, or you may choose none.

Select the mode of alignment you want

Objects may be aligned to the Work Space centre or edge, the last object selected during selection, the grid, or to the centre of the object's own selection box.



Select both the text and the border.


I made signs before I could talk

Click 'OK'.
The text will be centred exactly inside the border.

PAGE P1

## Learning Guide

Making Arrays Rectangular Arrays

You can replicate as many objects onto the Work Space as you wish, and you can also have them arranged into neat rows and columns.


3 Select Rectangular mode.
Enter the number of rows and columns you need.

Set the array size by entering a 'spacing' value or by entering an additional 'separation' value between the arrayed objects.

TAB You can use the 'Tab' key to advance along the boxes.



Click 'OK' and the array is built.

## (5) Making Repeat Object Borders


the array using the objects only along the array using the objects only along each edge.

## Making Arrays Circular Arrays

You can use the Array Tool to place objects onto a circle or an arc.


(6)

## Array on a Full Circle

Make sure you tick the 'Full Circle' box before you click 'OK'.


Click the cross-hairs to set the centre of your circle. The array then draws automatically around this point.


You can choose to offset the centre of the circle, or set it close to, or away from the object.

## (7) <br> Rotating the Array Objects.

Clicking the 'Rotate Objects' box causes each object to be rotated and stay at the same angle to the path.


Leaving the box unselected places the objects on the array path without rotating them.


Click to set the radius of the arc. The objects are drawn counter clockwise on the arc.


## Learning Guide

The 'Measuring' tool allows you to measure the length, height or angle of anything on your Work Space. Or, you may need to scale an object to make some part or feature of the object a certain size.
(1)

Click the 'Measure' tool icon on the Toolbar, or choose 'Measure' on the 'Manipulate' menu.

## 2

Click the crosshairs at the start and then the end of the feature to be measured.
 box opens, and shows both the length and angle of the feature you measured.

Maybe you need the Lower Case of your text to be at a certain size.


Click the 'Measure' tool icon on the Toolbar, or choose 'Measure' on the 'Manipulate' menu.


The pointer becomes cross-hairs. Align the pointer with the text baseline, and click.


Move to the top of the lower case character and click again.



Enter the height you want into the 'Length' box. The scale of the new object size now appears.


Click 'OK' to have the text redrawn at the new scaled size.

Click 'Select' to finish using the Measuring tool.

## Learning Guide

The 'Measure' tool can be used to rotate an object using the angle of one of its parts.

Select the 'Measure' tool icon on the Toolbar.

You can use the 'Zoom Window' option on the 'View' menu to enlarge an area of the object.


Click the crosshairs along a section whose angle you want to find.
 will be displayed.

Enter the angle you need perhaps to align with another object. You may change the scale at the same time if you wish. Click 'OK'.

After rotating an object, you may wish to return it to true horizontal or true vertical. The Measure tool can be used to do this.


PAGE R2

## Learning Guide

## Drawing Borders <br> Basic Borders

Drawing borders - even basic ones - would be a tedious task if each corner had to be individually drawn, rotated, aligned and connected. A rapid border drawing tool is provided.


PAGE S1

## Learning Guide

## Drawing Borders Borders With Ornate Corners

## A rapid border drawing tool for drawing borders with

 elaborate and detailed corners, is provided.

Click on the 'Border' tool icon on the Toolbar or select 'Border' from the 'Draw' menu.

Move onto the Work Space. The pointer becomes cross-hairs. You may click the mouse to start drawing a border using the last chosen style and thickness, or ..


Enter a value into the 'Border Thickness' box, or use the up/down buttons to change the value by 5 mm at a time (Try small values first, like 10 mm .).

If you wish, you may enter co-ordinates into the entry boxes to have a border drawn at a precise location. You may choose the centre or corner mode. Click 'OK' to draw the border.

Click 'OK' to start drawing.

## (7)

OR ...You may draw directly onto the Work Space.

Click a 'Mode' button to start drawing from the centre or from the top left corner.


Click to place the centre or first corner.


Move and click again to place the bottom right corner. The border is drawn.

10 Click 'Select' to finish drawing borders.

## Learning Guide

Not all border styles have four similar corners. A library of symmetrical and asymmetrical panel borders in basic, art deco, novelty, ornate and period styles is provided.


Click the 'Border' tool icon on the Toolbar, or.... select 'Border' from the 'Draw' menu.


The Border Style window opens.

Select a panel style from the 'Border Styles' list.

Use the scroll bar or arrow buttons to view the panel collection.

Click on your selection and click 'OK'.
or ... you may draw directly onto the Work Space.

Choose a mode button - you may start drawing from the centre or the top left corner. Click 'OK'.

Click on the


Then move and click again to place the lower right corner. The panel is drawn.


The selected panel border is displayed. You may draw the panel at an exact size and location by entering co-ordinate values into the entry boxes, then choose the centre or corner mode button. Click 'OK' to draw the panel.

You may choose and draw more panels...
 place the first corner or centre.

## Learning Guide

## Using the Symbol Library

A library of symbols, signs, separators, shapes, logos, sign elements, design elements and sign art is provided to aid in the rapid development of artwork for signs.

Click on the 'Library' tool icon on the Toolbar, or select 'Library' from the 'Draw' menu.


PAGE T1

## Learning Guide

## Creating Distortions The Vertical Bezier Distortion

## 1

Select an object you wish to apply a vertical bezier distortion to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

3The 'Distortion' dialog box opens.

Select the vertical 'Bezier' button and click 'OK'.


The selection box is replaced by a selection box with eight nodes.


Grab any of the nodes and move them. A dotted outline shows the changing shape.



If you hold down the 'Ctrl' Key, a pair of nodes from the top and bottom will move together (if one is dragged).
FBESH HSHECN SALE



If you hold down the 'Shift' Key, a pair of nodes from the top and bottom will move in equal and opposite directions (if one is dragged).

## Learning Guide

## Creating Distortions The Horizontal Bezier Distortion

## 1

Select an object you wish to apply a horizontal bezier distortion to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.


The Distortion dialog box opens.

Select the horizontal 'Bezier' button and click 'OK'.


4 The selection box is replaced by a selection box with eight nodes.

Grab any node and move it. Dotted outlines show the changing shape. Keep moving nodes until the dotted outline shows the shape you want. Click 'Select' to have the distortion drawn.



If you hold down the 'Ctrl' Key, a pair of nodes on each side will move together (if you move either one).


If you hold down the 'Shift' Key, a pair of nodes on each side will move in equal and opposite directions (if either is moved).


PAGE U2

## Creating Distortions Fit To Arc (Clockwise)

## (1)

Select an object you wish to fit clockwise to an arc.

You can select text, or any vectorised shape.

Two circles, the object's width apart, surround the object.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

3
The Distortion
dialog box
opens.

Select the 'Arc' button with the clockwise arrow and click 'OK'.


Dragging one of the side nodes changes the start or end, and the angle of the arc.
Click 'Select' to draw.


If you hold the 'Ctrl' Key, moving a side node rotates the centreline.

If you hold the 'Ctrl' Key, moving either of the top nodes moves both together, keeping their distance apart constant.



Dragging the top nodes changes the height or baseline.
Dotted outlines show the changes. Click 'Select' to draw.

Click 'Select' to draw.



If you hold the 'Shift' Key, moving either of the side nodes moves both together, changing the arc angle symmetrically.

If you hold the 'Shift' Key, moving either of the top nodes moves both in equal and opposite directions.

Click 'Select' to draw.


## Creating Distortions Fit To Arc (Counter-Clockwise)

## (1)

Select an object you wish to fit counterclockwise to an arc.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

## The Distortion window opens.

Select the 'Arc' button with the counter clockwise arrow and click 'OK'.


Two circles, the object's width apart, surround the object.

TEXT PIACED OM AN RACC


Dragging the top nodes changes the height or baseline.
Dotted outlines show the changes. Click 'Select' to draw.


Dragging either of the side nodes changes the start or end, and the angle of the arc.
Click 'Select' to draw.


CONTROL

If you hold the 'Ctrl' Key, moving a side node rotates the centreline.

If you hold the 'Ctrl' Key, moving either of the top nodes moves both together, keeping their distance apart constant.


Click 'Select' to draw.


If you hold the 'Shift' Key, moving either of the side nodes moves both together, changing the arc angle symmetrically.

If you hold the 'Shift' Key, moving either of the top nodes moves both in equal and opposite directions.

Click 'Select' to draw.


## Learning Guide

## Creating Distortions Fit To A Globe

## (1)

Select an object or group of objects you wish to fit to a globe.

You can select text, or any vectorised shapes.

## TEXT ON A GLOBE

TEXT ONA GLOBE
TEXT ON A GLOBE
TEXT ON A GLOBE
TEXT ON A GLOBE
A. Any text included in the selection will be converted to curves during distortion.

Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.


The Distortion window opens.

Select the 'Globe' button and click 'OK'.


(7)
$\qquad$
If you drag the node away to the right, a different distortion will result.

The objects are drawn as if fitted to a barrel. 3

## Learning Guide

## Creating Distortions Linear Distortions

## 1

Select an object you wish to apply a linear distortion to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

## (4) DISTORTIONS

The selection box is replaced by a selection box with corner nodes.

5You can grab any node and move it.
A dotted wire-frame outline shows the changing shape.


Click 'Select' to have the distortion drawn on the Workspace.
. Text is converted to curves in the distortion process, and can't be edited as text afterwards.

## Learning Guide

## Creating Distortions Perspective

## 1 COMING

Select an object you wish to apply perspective to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

## The <br> Distortion window opens.

Select the 'Perspective' button and click 'OK'.


(4)

## Horizontal Perspective:

A box with side nodes replaces the selection box
Grab a side node and pull away. A dotted wire-frame indicates the changing shape.

Click 'Select' to have the object drawn with the new perspective.

## (5) Vertical Perspective: <br> Grab the top or bottom node

 of the selection box.Pull the top node up or the bottom node down. A dotted frame and outlines show the changing shape.


Click 'Select' to have the object drawn with the new perspective.


PAGE U7

## Creating Distortions The Vertical Arch Distortion

## 1

Select an object you wish to apply a vertical arch distortion to.

You can select text, or any vectorised shape.

The selection box is replaced by a selection box with six nodes.

## The Distortion window (3) opens.

 Select the Vertical 'Arch' button and click 'OK'.Click the 'Distort' tool icon from the Toolbar, or select Toolbar, or sele the 'Manipulate' menu.
 .

- 3

Grab any node and move it.


A dotted frame outline shows the changing shape Click 'Select' to draw the vertical arch distortion.

If you hold down the 'Ctrl' Key, moving a top node will move the node below in the same direction.

## Creating Distortions The Horizontal Arch Distortion

## (1)

Select an object you wish to apply a horizontal arch distortion to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

The selection box is replaced by a selection box with six nodes.


## 3 Distortion window opens.

Select the horizontal 'Arch' button and click 'OK'.


4


If you hold down the 'Shift' Key and move a side node, the node on the other side will move in equally and in the opposite direction.


PAGE U9

## Creating Distortions Fit To Cylinder

## (1)

Select an object you wish to fit to the shape of a cylinder.

You can select text, or any vectorized shape.

| TEXT ON A CYLINDER |
| :---: |
| TEXT ON A CYLINDER |
| TEXT ON A CYLINDER |
| TEXT ON A CYLINDER |
| TEXT ON A CYLINDER |
| TEXT ON A CYLINDER |

Any text included in the selection will be converted to curves during distortion.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.


A circle outline forms at the object's width with a node on the right side.


PAGE U10

## Creating Distortions The Flag Distortion

(1)Select an object you wish to apply a 'Flag' distortion to.

You can select text, or any vectorized shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.
replaced by a selection box with two nodes.


Grab either node and move it.

The dotted outline shows the changing shape.


By dragging the nodes to the left, the number of waves increases. By dragging to the right, the number decreases.



4


If you hold the 'Ctrl' key, then grab either node, both nodes will move together.


If you hold the "Shift" key then grab either node, both nodes will move in equal and opposite directions.


## Learning Guide

## Creating Distortions The Warp Distortion

## (1)

Select an object you wish to apply a compression distortion to.

You can select text, or any vectorized shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.


The 'Distortion' window opens.

Select the 'Warp' button and click 'OK'.


(4)The selection box now has a grid and central node.


Grab the node and move it. The grid lines compress, and dotted outlines show the changing shape. Click 'Select' to have the distortion drawn.


The node can be dragged up ...


PAGE U12

## Creating Distortions The Arch 2 Distortion

## 1

Select an object you wish to apply an 'Arch 2' distortion to.

You can select text, or any vectorised shape.


Click the 'Distort' tool icon from the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

## The Distortion window opens.

 Select the 'Arch 2' button and click 'OK'.The selection box is replaced by a selection box with six nodes.


Grab any
5 nodes and move them. A dotted frame outline shows the changing shape...

If you hold down the 'Ctrl' Key, moving a top node will move the node below in the same direction.
 DIS $5^{T O R T I T O N}$

If you hold down the 'Shift' Key, moving a top node will move the node below equally and in the opposite direction.


## Learning Guide

## Creating Distortions The Twirl Distortion

Select an object you wish to apply a 'Twirl' distortion to.

## TWIRL

You can select text, or any vectorized shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.


A circle appears surrounding the object. A single node is found at centre right.


## 5

Drag the node around the circle.
A dotted outline shows the extent of distortion.


Click on "Select" to have the distortion drawn.

$\tau^{4}$

## PAGE U14

## Creating Distortions The Vertical Ridge Distortion

(1)Select an object you wish to apply a 'Vertical Ridge' distortion to.

You can select text, or any vectorized shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

The 'Distortion' window opens.

Select the 'Vertical Ridge' button and click 'OK'.

The selection box is replaced by a selection box with six nodes.

 Grab any node and move it. The dotted outline shows the changing shape.
©
Click on
"Select" to have the distortion drawn.



This distortion can be useful for showing how a hoarding or banner may look on a building

If you hold the "Shift" key then grab any node, the node above or below will move in equal and opposite directions.

PAGE U15

## Learning Guide

## Creating Distortions The Horizontal Ridge Distortion

1Select an object you wish to apply a 'Horizontal Ridge' distortion to.

You can select text, or any vectorized shape.


Click the 'Distort' tool icon on the Toolbar, or select 'Distortion' from the 'Manipulate' menu.

The selection box is replaced by a selection box with six nodes.


If you hold the "Shift" key then grab any node, the node above or below will move in equal and opposite directions.


## PAGE U16

## Learning Guide

## Fill Effects Fractalise

As well as special effects and distortions, you can apply fractal effects to objects. You can apply fractal effects to the edges of an object to give each object a unique outline. There are twelve different fractal effects from which to choose.

To put a fractal effect on an object:

1. Select the object.
2. Choose 'Fractalise' from the 'Manipulate' menu, or press the 'Fractal' Toolbar icon.
3.Click the right mouse button to bring up the 'Fractalise' window.


OPTIONS

Randomize

Keep Corners


Help
4. Click the large button beside the 'Fractal' graphic to bring up a list of fractal effects.
5.Choose the fractal effect you want (the graphic of the word 'Fractal' gives an example of each effect).
6. If necessary, select the options for 'Keep Corners' and 'Randomise'.
7. Select 'OK'.
8. You can click on any displayed red node(s), and drag up or down to determine the level of effects.
9.Choose the 'Select' tool icon to perform the effect.


PAGE W1

## Learning Guide

This command provides a quick and easy solution for simulating color gradation on vinyl. There are four blend effects, and a number of options that you can use. When viewed from a distance, the color of the object will appear to blend from one color to another.

To color blend an object:

1. Select the object.
2.Choose 'Color Blend' from the 'Manipulate' menu, or press the 'Blend' Toolbar icon.
2. Click the right mouse button to bring up the Color Blend dialog box.
3. Select the options detailed below and select 'OK'.
4. You can vary the blend by grabbing and dragging any of the nodes, as shown in the picture to the right. Once you have made a final decision. choose the 'Select' tool icon on the Toolbar, to perform the effect.


## Blend

Click the large $\geqslant$ button beside the 'Blend' graphic to bring up a list of color blend effects. The graphic of the word 'Blend' gives an example of each effect. Choose the desired effect.

## Number of Lines

This sets the number of overlapping colored lines used for the blend effect.

## Use Original Bottom Color

Selecting this option will retain the current color of the object as the bottom color of the blend.


## Color Palette

To change to another color palette, click on the palette name. A full list of available palettes will appear. Click on the desired palette name.


## Direction

This determines which selected color is used for the top and bottom of the blend. For example: If reverse is selected, the top color becomes the bottom color and the bottom color becomes the top.

## Learning Guide

## Fill Effects Color Medley

The 'Color Medley' command consists of various functions that have different effects on the color of the selected object. The functions are: transparency, invert background, darken/lighten, color add/subtract, outline only.
Note: You must have "Full Render" selected in the "View" menu to correctly display these effects on screen.

Select an object. If you are going to use color modes - 'Invert Background', 'Darken/Lighten' or 'Color Add/Subtract', place the selected object in front of the objects that you are going to perform the effect on.

2
Select "Color Medley" from the 'Effects' menu or select the 'Col Medley' icon from the Toolbar to open the Color Medley dialog box. 'Color Mode' drop down list

You can learn more about each mode with examples by opening its sample file while running the program. Sample files are found on your installation CD in the folder ISB5Samp1

## None

Removes the effect of the other 'Color Medley' options that are described here.

## Transparency

Makes the object fully or partly transparent, so that objects behind the selected object will be partly visible.



## Invert Background

The selected object will invert the color of objects behind it, including the background.

Open the sample file: \SB5Samp1\COLR-MED-2.SBD

## Darken / Lighten

The selected object will affect the brightness of any objects behind it, rather than its own brightness.

## Open the sample file: \SB5Samp1\COLR-MED-3.SBD

## Outline Only

When you use this option, only the outline of the selected object will be visible.

Open the sample file: \SB5Samp1\COLR-MED-5.SBD

## Color Add/Subtract

The color of the selected object will be added/subtracted to the color of any objects behind it.

Open the sample file: \SB5Samp1\COLR-MED-4.SBD

If you wish to see what effect your selections will have on the object, without committing yourself to the result, click on the 'Preview' button.

Press 'OK' to accept your selections The object will be rendered with the new settings

## Learning Guide

Fill Effects
Fill Attributes
The 'Fill Attributes' Gradient Fill creates a stepless linear color fill for the selected object. The color fill of the object will merge smoothly from one color into others. You are also able to vary the number and position of colors, and the angle of the fill effect.
L. You must use a Windows display driver that can display more than 256 colors and you must have
"Full Render" in the 'View' menu selected for these effects to be displayed correctly.
Select an object and choose 'Fill Attributes' from the 'Effects' menu, or press the 'Fill Attr' tool icon on the Toolbar.
The 'Fill Attributes' dialog box will appear.
Select the 'Gradient' fill tab
2
You can select one of the library of Preset color gradients by clicking the list arrow and selecting from the drop-down list...

| 1 | sean | ㅂ |
| :---: | :---: | :---: |
| 2 | caun |  |
| 3 | sewi |  |
| 4 | semi |  |
|  | cetus |  |

Or you can create your own fatasy.

You can create your own gradient by clicking on color arrows and moving them to new positions along the gradient and changing their color. You can 'drag' an arrow or use the 'Position' entry box to move it. You can add more arrows by clicking between other arrows or select an arrow and press 'Delete' to remove it.
With an arrow selected you can assign a color to it from any of the color palettes.
You can change the 'angle' of the effect from the 'Angle 'entry box - enter an angle or use the up/down arrows.
Select 'Preview' to see the fill effect before committing to it. Click 'OK' to draw the fill.

## Learning Guide

The texture command will fill an object with a colored texture picture.
You must have "Full Render' in the 'View' menu selected for this effect to be displayed correctly
Select the object and choose 'Fill Attributes' from the 'Effects'
menu, or press the 'Fill Attr' tool icon on the Toolbar. Then click
on the 'Texture' tab. The dialog box shown below will appear.

To select a texture to use, click on the list button to the right of the 'Catagories' box, and choose a category from the drop down list. right of the pictures) right of the pictures) to scroll through the available texture pictures. Then click on the picture of the texture you wish to use.


If you wish to see what effect your selections will have on the object, without committing yourself to the result, click on the Preview button.

As the texture pattern will usually be too small to cover the whole object, it will be 'tiled' (the texture picture will be repeated a number of times, filling the entire object). This setting controls the width and height of each texture tile. Type appropriate values into the 'Width' Click 'OK' to perform the effect. and 'Height' boxes.

If you tick the 'Keep Proportional' box when you type in a value, the other value will adjust automatically to keep the same proportions.

## Learning Guide

This function adds a drop shadow to the selected object. This type of shadow can have transparency and can be blurred, making it quite realistic.

1
To use this command, first select the object. Then select 'Drop Shadow' from the 'Effects' menu, or press the 'Drop Shad' tool icon on the Toolbar. The dialog box shown below will appear.

## Offset

This is the distance between the original object and the shadow.

## Preview

Press 'Preview' to see the settings applied to the object before you make a final decision.

## Percentage

Tick this box and the offset will be calculated at a percentage of the height of the object.

## Transparency

Makes objects behind the shadow partly visible.
Use the scroll bar to vary the
'Transparency' from '0' to '255'.


Click 'OK' to accept your selections. The selected object will now have a 'Drop Shadow'.

## Learning Guide

## Fill Effects Special Effects

There are many different special effects that can be applied to objects to create a distinctive look. To apply a special effect to an object, select the object and type ' X ' on the keyboard, or select 'Special Effects' from the 'Manipulate' menu, or click on the Toolbar icon 'Special Effects'. To bring up the 'Special Effects' menu, click on the right mouse button.

## Outlines

There are three types of outlines that you can draw. A Single line, a Relief outline that is separated from the object, and a Double that has one line touching the object and the second as a relief.


## Effects

To select an effect click on the large -1 button to the right of the 'Effects' graphic. The box to the right changes depending on the effect you have chosen, offering options on spacing, lines, numbers, thickness and ratio.

For all effects, when you select the effect, a WireFrame appears on the Work Space with a number of nodes (i.e. small red squares), which gives you further control. An example of all ten effects is shown below. On the Circle, Star and Shatter effects clicking the left mouse button on the object re-draws the effect in new random locations.


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## Learning Guide

The Transparency tool allows control over both the gradation and profile of transparency applied to selected objects. Variable transparency can be applied to both vector and bitmap objects

Select the object to which a transparency profile is to be applied.
You may select vector objects as well as bitmap objects.
Select "Linear Transparency . . " from the "Effects" menu

An arrow will appear across the object you have selected. The arrow has a ball shaped base and a pointed arrow head. You can grab the head and the base with the mouse and relocate them to where you want your transparency profile to start and end.

A window also opens in which you can grab and move the nodes on a line which represents the profile of transparency applied to the arrow.

A level line gives equal transparency across that section of the arrow An inclined line causes gradation of transparency across that section of the arrow


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## Learning Guide

## Fill Effects Color Transparency

This versatile command makes only selected objects of the selected color transparent. This effect can be applied to both vector and bitmap objects.

Using this tool you can for instance:
1)remove the background color of pictures/photos so that the pictures/photos can be placed on top of other objects
2) select a vector color in a Linear Transparency and make it transparent.
3) select a color in a Texture fill and make it transparent.
4) make a color in a bitmap transparent (using the Special Effects command), and therefore could e.g. replace the sky with mountains in the bitmap.
5) merge bitmaps (there are also other ways of doing this).
6) scan complicated line art (e.g. etching and old illustrations) at the correct dpi, the resulting picture will then have hard black edges (as if the object had been vectorised).

As an example, you could strip an object's background and place it into another picture ...

1
Select an object that needs the background color removed.

Drag the 'Tolerance' and 'Edge Softness' sliders to make the required color transparent. Use the 'Preview'button to see the progressive result. Press 'OK'.The (color) 'Tolerance' can be adjusted over a large range e.g. red can be adjusted from light to dark.

Click 'Color Transparency' on the 'Effects' menu to open the dialog box.


Choose an appropriate color pallette and click the color that best matches the background.


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## Learning Guide Schedule

Edge Effects<br>V1 Expand/ Inline / Outline<br>Advanced Inline/Outline:<br>V2 Using Inline/Outline<br>V3 Outline Options<br>V4 Inline Options<br>V5 Using the Online Tool<br>V6 Clouding, Changing Weight<br>V7 Color Trapping<br>V8 Keyline<br>V8 White Space<br>V9 Glow<br>V10 Enhance - Round<br>V11 Enhance - Metallic<br>V12 Enhance - Neon<br>V13 Enhance - Chamfer<br>V14 Enhance - Chamfer Styles<br>Welding<br>X1 Total Welding<br>X2 Punch Through Welding<br>X2 Color Weld- Punch Through<br>X3 Color Welding<br>X3 Common Welding<br>X3 Reverse Welding<br>\section*{Creating Shadows}<br>Z1 Selecting Styles and Options<br>Z2 Block Shadows<br>Z3 Perspective Shadows<br>Z4 Solid Perspective Shadows<br>Z5 Drop Shadows<br>Z6 Relief Shadows<br>Z7 Cast Shadows<br>Z8 Extra Shadow Styles -1<br>Z9 Extra Shadow Styles -2

## Outline Options:

An object or text can be expanded to form two kinds of outline - one offset and the other not offset.


Type text or select an object.


The Expand dialog box opens. Click 'Keep Original'. Click 'Remove Overlaps' to have overlapping
 outlines automatically welded together.

You can choose to enter the thickness and offset of the outline in mm . or percentage of the object size. Enter values and click 'OK'.
Select the 'Expand' tool icon on the Toolbar, or select 'Expand' on the 'Manipulate' menu.



If the offset is entered as zero, the outline is drawn directly around the objects.


Offset values cause the outline to be drawn outside the edge of the objects by the offset value.

## Inline Options:

The 'Expand' tool can be used to create two kinds of inline - one offset and the other not.


Type text or select an object.


The Expand dialog box opens. Click 'Keep Original'.

You can choose to enter the thickness and offset of the inline in mm. or percentage of the object size. Enter values and click 'OK'.

## Select the

 'Expand' tool icon on the Toolbar, or select 'Expand' on the 'Manipulate' menu.


If the offset is zero, the
 inline is drawn directly inside the object edge, and the remainder is black.

If an offset value is entered,

then a white offset band is drawn inside the inline with the remainder drawn black.

(1)
You can use Inline/Outline on text and vectorised objects.

First, select the objects you want to apply the function to.

Choose the functions you want by ticking the boxes.

Enter values for both 'Offset' and ' Thickness' of Inlines and/or Outlines.

2 (2)


Select 'Inline/Outline' from the 'Manipulate' menu or click the 'Outline' tool icon on the Toolbar or press "I" on the keyboard.

## Learning Guide

## Multiple Inline/Outline Using Outline Options

## Creating Multiple Outlines:



> С Keep Origisal
> $\triangle$ Pescestape
> $\triangle$ Remowa Owerlapa

Enter 'Offset' and 'Thickness' values. You can make 'Count' as large as you want.

Choose colors for each. Tick 'Remove Overlaps' to weld overlapping outlines. Click 'OK' to draw.

Selecting a 'Corner' Style:


Select one of the three corner options. Both the offset and the thickness will be drawn with the same corner style.

Mitred


## 'Keep Original' Option:



When 'Keep Original' is deselected, the first offset changes so as to also fill the area which the original object filled. The original object is not drawn.

## Signs

 Signs
## Learning Guide

## Multiple Inline/Outline Using Inline Options

## Creating Multiple Inlines:



(1)

Enter 'Offset'
and 'Thickness' values.
You can make 'Count' as large as you want.

Choose palette colors for both offset and thickness. Tick 'Percentage' to make values proportional. Click 'OK' to draw.


3
With a count of '10' you will see five 'offsets' and five 'thicknesses' if the object is wide enough. If it isn't wide enough, some inline objects will not be drawn.

Each object will be 'punched through' ready for vinyl inlay if 'Remove Overlaps' is ticked.

## Selecting a 'Corner' Style:

Select one of the three corner options. Both the offset and the thickness will be drawn with the same corner style.


Mitred


Offset \& Thickness Colors:
 in the chosen palette color.

## 'Hand Tooled' Characters

'Hand Tooling' is a representation of the art of carving out the centres of the thickened strokes of a font.

Type your text.

(2)

Select the 'Expand' tool.

In the 'Expand' dialog box, select 'Inline' and 'Keep Original' Enter an offset value and a large value for thickness (e.g. 20\%)


Click 'OK' to draw.


Select the inline (black) only and use the right nudge key $\rightarrow$ to offset
the 'tooling'.

5

Traditionally, the effect is applied to a medium to bold Serif font with tooling in all the thick strokes. Some experimentation may be required, but values from $1.5 \%-6 \%$ for the offset usually give good results.

## Online

Unlike an Inline or Outline the 'Online' is drawn to cover an object's edge equally on each side.



## 3 The 'Online'

3 dialog box opens.
Select a 'Mode' button. The options are to draw the online either on, just outside or just inside the object border.


Select 'Remove Overlaps' to have overlapping lines welded.

Enter an online thickness value in mm . or as a percentage of the object size, or click one of the preset width buttons.


Click 'OK' to draw the 'Online'.

## Cutting 'Hand Tooled’ and 'Online’ Graphics



The white 'toolings' and areas enclosed by 'onlines' are overlay shapes which can be cut separately for a vinyl overlay method.



For a vinyl inlay method, first use the 'Punch Through' welding tool.

## 'Clouding'

Setting a large value for an expanded outline is termed clouding. Two styles can be created.

Type text or select an object.

2| B |
| :---: |
| Expand |

Select the 'Expand' tool icon on the Toolbar, or select 'Expand' on the 'Manipulate' menu.

## (3)

The 'Expand' dialog box opens. Click the 'Outline' button and 'Keep Original'.


Click 'Remove Overlaps' to have overlapping outlines automatically welded together.

You can choose to enter the thickness and offset of the clouding in mm . or percentage of the object size.

Enter values and click 'OK'. Make the offset or thickness over 10\% for good results.



If the offset is entered as zero the clouding is drawn directly around the objects.


Offset values cause the clouding outline to be drawn outside the edge of the objects by the offset value.

Changing Weight
You may wish to 'thicken' a font (such as 'Premium') for easier cutting ...


In the 'Expand' dialog box, select 'Outline' and deselect 'Keep Original'. Enter a small thickness and zero offset.
Type your text and select the
'Expand' tool icon on the Toolbar.
Be careful when choosing fonts for expanded weight change. Unless the characters of a font have equal thickness all over, an expansion will alter the ratios between thin and thick parts of the characters. For example, expanding any serif font will produce a font with very thick serifs.

## Learning Guide

You can use 'Color Trapping' to eliminate white space between objects of different colors. Often when laying vinyl, shared borders will have a small gap between the edges. 'Color Trapping' bleeds the objects and colors on the lower level under the objects and colors of the higher level by adding extra vinyl to the overlapping edges.

When making screensfor screen printing the same procedure applies.


The Color Trapping dialog box will appear. You need to arrange the colors to match the order you want to lay the vinyl in, and then select 'OK'.

To move a color to a new position, simply click on the color bar and drag it up or down.


The 'Bleed Offset' is the width in millimetres or inches of the vinyl 'Tag' attached to the objects.
'White Space' lets you draw a white border around the selected object. This can often make the selected object stand out.


## Keyline

Keyline draws a black border around each individual selected object. This is an alternative to the outline command, which draws a border around the whole group of selected objects.


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## Learning Guide

Edge Effects
Glow
This command makes a 'glow' effect around the selected object. "Full Render" must be selected on the 'View' menu for this effect to be correctly displayed on the screen. Pressing 'Cntl' + 'F' keys turns 'Full Render' on and off.

1 To create a 'Glow', first select an object. Then select 'Glow' from the 'Effects' menu, or press the 'Glow' tool icon on the Toolbar. The dialog box shown below will appear:

## Outline

'Outline' controls the thickness of the 'Glow' effect.

## Preview

Press 'Preview' to see the settings applied to the object before you make a final decision.

## Percentage

Tick this box and the offset will be calculated at a percentage of the height of the object.

## Transparency

Makes objects behind the glow partly visible. Use the scroll bar to vary the 'Transparency' from '0' to '255'

## Color

Choose a color palette and then a color from that palette, and your 'Glow' will appear in your chosen color.

## Softness

Gives the edges of your 'Glow' a soft, blurred effect ('100' gives a very soft effect). To vary the 'Softness' click on the left or right arrows.


## Learning Guide

## Edge Effects Enhance - Round

'Enhance' effects apply a three dimensional look to an object, by applying highlighting and shadows.
"Full Render" must be selected on the 'View' menu for this effect to be displayed correctly on the screen
Remember to group the object together with all its enhancements before moving, rotating or sizing them.

Select an object and choose 'Enhance'from the 'Effects' menu. The 'Enhance' dialog window opens.


Select 'Round' from the drop down menu. This effect rounds and softens an object's edges.

## Softness

Determines the 'Softness' of the effect. A setting of '100' gives a blurred, very soft effect.

## Highlight Amount

Determines the 'Brightness' of the highlights. A setting of '100' gives a very bright highlight.

## Shadow Depth

Determines the amount of shadow on the edges. A setting of '100' gives a deep shadow.


You may need to experiment with the settings. Try Amount: 100, Softness: 50, Highlight: 50, Shadow Depth: 50, as a start. Use the 'Preview' option to view results. Click 'OK' to apply.

## Light Direction

Determines the direction of a simulated light source shining on the object. The line drawn towards the centre of the circle shows the direction of light highlighting the object's edges from that angle. To set this angle, click the circle at the point from where you want the light to 'shine'.


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## Learning Guide

## Edge Effects <br> Enhance - Metallic

'Enhance' effects apply a three dimensional look to an object, by applying highlighting and shadows.
"Full Render" must be selected on the 'View' menu for this effect to be displayed correctly on the screen
Remember to group the object together with all its enhancements before moving, rotating or sizing them.

Select an object and choose 'Enhance'from the 'Effects' menu. The 'Enhance' dialog window opens.


Select 'Metal' from the drop down menu. This effect sharpens and highlights an object's edges.

## Softness

Determines the 'Softness' of the effect. A setting of '100' gives a blurred, very soft effect.

## Highlight Amount

Determines the 'Brightness' of the highlights. A setting of '100' gives a very bright highlight.

## Shadow Depth

Determines the amount of shadow on the edges. A setting of '100' gives a deep shadow.

## Amount

Determines the degree of the effect. To increase the 'Enhance' effect, move the 'Amount' scroll bar to the right.


## Learning Guide

## Edge Effects Enhance - Neon

'Enhance' effects apply a three dimensional look to an object, by applying highlighting and shadows.
"Full Render" must be selected on the 'View' menu for this effect to be displayed correctly on the screen
Remember to group the object together with all its enhancements before moving, rotating or sizing them.


PAGE V12
'Enhance' effects apply a three dimensional look to an object, by applying highlighting and shadows.
"Full Render" must be selected on the 'View' menu for this effect to be displayed correctly on the screen
Remember to group the object together with all its enhancements before moving, rotating or sizing them.
Select an object and
choose 'Enhance'from
the 'Effects' menu.
The 'Enhance' dialog
window opens.

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## Learning Guide

Examples of the 'Chamfer' styles may help you to draw your own. Each example includes the settings used to achieve the illustrated result. You may use other effects on objects, like 'Texture Fill', before 'Enhance'
"Full Render" must be selected on the 'View' menu for this effect to be displayed correctly on the screen
Remember to group the object together with all its enhancements before moving, rotating or sizing them.

Straight | Highlight: 51 |
| :--- |
| Shadow: 58 |
| Height: 54 |
| Light Dir:11pm |

3 Inside Round $\left.\begin{array}{l}\text { Highlight: } 56 \\ \text { Shadow: } 54 \\ \text { Height: } 44 \\ \text { Light Dir: } 11 \mathrm{pm}\end{array}\right]$


Highlight: 56
Round Ridge


Shadow: 54
Height: 32
Light Dir: 11pm

Highlight: 56
Shadow: 54
Height: 32
Light Dir: 11pm


Two-Step


Highlight: 73 Shadow: 63 Height: 30 Light Dir: 11pm

## Learning Guide

## Welding <br> Total Welding

The Total Welding Tool joins separate objects together so that they become one new object with its own single outline. The objects to be welded may be of different colors and can be both shapes and text.
You cannot weld bitmap images - you need to 'vectorise' them first.


Place the objects to be welded together in the shape you need.



The objects are welded together. The welded shape appears in the color of the object at the back..


You can then rotate, size or change it as you would any single object.

One of the most practical uses of 'Total Welding', is to weld connected script together.

(1)
Type your text in a connected script font.

## Three blind mice

You can examine the character overlaps
4 by using 'WireFrame' to show outlines only


Individual characters can be adjusted if needed using 'Edit Text' on the 'Edit' menu.


Select the text and choose the 'Weld All' tool. The characters will be joined at their overlaps.

## Learning Guide

You cannot weld bitmap images - you need to 'vectorise' them first.

## Punch Through Weld

Punch Though welding takes any object placed to the front of another, and cuts its shape through the object behind. The tool is often used to create work for vinyl inlays. Either object can be text or graphics and of any color.

## (1)CUT OUT

Place the object you want punched through behind the object you want to use as a punch.



Select 'Punch Through' from the 'Weld' flyout menu on the 'Arrange' menu, or click the 'Punch' tool icon on the Toolbar.


The object used as a punch can now be moved, leaving its shape cut through the other object.

## Color Weld - Punch Through

This tool includes functions from both 'Color Weld' and 'Punch Through'. Objects of the same color will weld where they overlap. Objects of a different color and in front, will punch through those behind.


Create your work so that objects to be joined are in the same color, and overlap where you want them joined. Create objects to be used as a punch in a different color, and arrange them to the front.


Select 'Color WeldPunch Through' from the 'Weld' flyout menu.


Objects used as a punch can now be moved, leaving their shape cut through the other objects.

## Welding Color, Common \& Reverse Welding

You cannot weld bitmap images - you need to 'vectorise' them first.

## Color Welding

The Color Welding tool allows all objects of the same color to be welded together where they overlap, but leaves objects of different colors untouched.


Select all the objects which you need to weld. It will not matter if other objects are also selected, provided they are of different colors. You can check positions of all objects by viewing using 'Outline/WireFrame'.


Select 'Color Weld' from the 'Weld' flyout menu under the 'Arrange' menu.

Common Welding
Using this Welding Tool will leave only those parts of objects that overlap each other.
Objects may be of any color, but must not be grouped together.


Create or type the objects to be welded.


Place the objects so that the parts that overlap are the parts you wish to keep. Select the objects.


Select 'Common Weld' from the 'Weld' flyout menu under the 'Arrange' menu or 'Overlaps' from the Toolbar.

## Reverse Welding

Reverse Welding creates the opposite to 'common' welding. Parts of objects which overlap are removed, and those parts not overlapping remain unaltered.

1
Create or type the objects to be welded.
They may be text or graphics and any color.
Overlaps of objects in front will be deleted from those to the back.
Select all the objects.



Select 'Reverse Weld' from the 'Weld' flyout menu on the 'Arrange' menu or the 'Reverse' tool icon on the Toolbar.


## Learning Guide

Select the
text or object
to be
shadowed.


## 2

## SV

Click the 'Shadow' tool icon on the Toolbar or select 'Shadows' from the 'Manipulate' menu.


The selection box is replaced by a wire frame with nodes at its corners, showing the angle and depth of the current shadow style.

4
Grab any node of the wire frame and move it to form the depth and angle you want for the shadow.

Click on 'Select' to draw the shadow in the last chosen style, colors and values ...
or ... click the right mouse button to select a new shadow style or change colors $\square$ and values.


After clicking the right mouse button, the Shadow Options dialog box opens.

Click 'OK' to close the dialog box. The object will be seen with a red wire frame depicting the type of shadow. Drag the frame nodes to set the depth and angle of the shadow.
 use the elevator bar to see all the shadow styles available. Click on a style.



Click 'Select'
to have the shadow drawn.


## 1 <br> Basic Block Shadows



Create any distortions or editing you need on the objects before commencing to create a shadow.


Open the shadow options dialog box. Select 'Block' mode and 'Shadow 1' style. Choose a ColorWhiz ${ }^{\text {TM }}$ palette color for the shadow.


Click 'OK' to close the dialog box.

Grab any node of the box frame and drag it until the frame represents the depth and angle you need for the shadow.


Click 'Select' to have the block shadow drawn. The Shadow will be welded together automatically.

## (2) Cutting Basic Block Shadows



The shadow is automatically welded and is ready to cut for a vinyl overlay method.


If you wish to use a vinyl inlay method you must first use the Weld 'Punch Through' tool before cutting.




It is best to weld connected script before shadowing.

Click 'Block' mode
Select a shadow style such as 'Shadow 8' Select a ColorWhiz ${ }^{\text {TM }}$ palette color and enter values into each entry box to set the options for the shadow style.


Try smaller values first. Values below $5 \%$ are often more satisfactory.
Click 'OK' to close the dialog box.
Grab any node of the box frame and drag it until the frame represents the depth and angle you need for the shadow.


Click 'Select' to have the block shadow drawn. The shadow is welded automatically. No further welding is needed before cutting each vinyl color when an outline option is chosen.

## Basic <br> 1) Perspective Shadows

## SHADOW:

Create any distortions or editing you need on the objects before commencing to create a shadow.
It is best to weld connected script before shadowing it.


Open the Shadow Options window. Select 'Perspective' mode and 'Shadow 1' style.

Choose a ColorWhizTM palette and a color for the shadow.


Cutting Basic Perspective Shadows


The shadow is automatically welded and is ready to cut for a vinyl overlay method.


If you wish to use a vinyl inlay method you must first use the Weld 'Punch Through' tool before cutting.


PAGE Z3

## Curved Perspective Shadows



Create the curve distortions before commencing to create a shadow. You can use 'Text on arc' or an arc distortion.

Open the Shadows dialog box.


Select 'Perspective' mode and a shadow style. You can choose 'Shadow 4' if you want to outline text. Choose a ColorWhiz™ palette color for the shadow.
Enter a value into any option entry boxes you want to change.


Grab the vanishing point node and drag it to a horizon line below the text.

Drag the box frame and move it towards the vanishing point to set the shadow depth.



Click 'Select' to have the perspective shadow drawn.


## Creating Drop Shadows

## 1 <br> Basic Drop Shadows

 SpecialsCreate any distortions or editing such as welding on the objects before commencing to create a shadow.


Open the shadow options dialog box. Select the basic drop shadow style, 'Shadow 10'. Choose a ColorWhiz ${ }^{\text {TM }}$ palette color for the shadow (Try to keep a high contrast).

## Specials $\times$ Specials

Click 'OK' to close the dialog box.

Grab any node of the separate box frame and drag it until the frame represents the drop and angle needed for the shadow.


Click 'Select' to have the shadow drawn.
Text will be converted to graphics in the process and each character will become a separate object.

The shadow is a replica of the original object.


If you wish to use a vinyl inlay method, you must first use the Weld 'Punch Through' tool before cutting.


Select a drop shadow style with the options you want. 'Shadow 12' has multi-layers.

Select ColorWhiz ${ }^{\text {TM }}$ palette colors and enter values into each entry box to set the options for the style.

Try entering small values first to see the effect. Lines are often better when kept below $5 \%$ of object size.

Click 'OK' to close the dialog box.

Grab any node of the box frame and drag it until the frame represents the depth and angle you need for the shadow.


## Learning Guide

## Creating Relief Shadows

## Relief Shadows

The 'Relief' Shadow is designed for use over a background color to achieve the best effect.

## 1

A simple rectangle with a medium density color fill is a suitable background.


Type text, or place objects directly onto the background. Text can be typed in any color at all - choosing a high contrast color will help you see the text.

Create any distortions, welding or editing you need on the objects before creating the shadow.


Open the Shadow Options dialog box. Select 'Shadow 15'. Choose a ColorWhiz ${ }^{\text {TM }}$ palette and a color for the shadow (The highlighted side will be drawn in White).

Click 'OK' to close the dialog box.

Drag any node of the box frame to set the direction and size of the highlight (The shadow will form at the same size, but in the opposite direction).

Keeping the shadow size very small usually gives the best looking results.


Click 'Select' to have the shadow drawn.

## More <br> Dramatic Effects

 can be achieved by using custom background shapes.

Cutting a Relief Shadow

Both the shadow and highlight are automatically welded and ready to cut for vinyl overlay.

If the base material is white or a suitable light color, you can cut the highlight onto the background vinyl and weed it out.

## Learning Guide

## Creating Cast Shadows



Create any distortions, welding or editing you need on the objects before creating the shadow.


Open the Shadow Options dialog box. Select 'Shadow 16' style. Choose a ColorWhiz ${ }^{\text {TM }}$ palette and a color for the shadow.

Click 'OK' to close the dialog box.


Drag a node of the wire frame to set the direction and depth of the cast shadow.



Dragging the wire frame to the right will form the shadow as if cast behind the objects - the 'Sunset' shadow.


Dragging the wire frame to the front and to the left will form the shadow as if cast in front of the objects - the 'Sunrise' shadow.

The Cast shadow is a skewed replica of the objects.


If you want to use a vinyl inlay method, you will first need to use the Welding 'Punch Through' tool.


PAGE Z7

# Creating Shadows Adding to the Range of Styles 

By combining the effects of different tools, you can create a large array of additional styles ...

## Creating 'Hollow' Characters



Type text onto the Work Space. A hollow character effect will show best on a heavy block font.

(2)Select the 'Online' tool.

For best results, keep the online thickness to a small percentage of character height

- e.g. 3.5\% Click 'OK'.


Open the Shadow Options dialog box. Select 'Shadow 3'. Choose a ColorWhizTM palette and a color for the shadow.

- Keep the 'Outline Distance' small ( like 2-3\%) for best results.
Click 'OK' to close the dialog box.
frame to set the direction and depth of the shadow. Shallow depths will usually give better results.


Click 'Select' to have the shadow drawn.


PAGE Z8

## Creating Shadows Adding to the Range of Styles

## Creating Curved Drop Shadows

(1)
Type your text and make any changes you require.


Open the Shadow Options dialog box. Select 'Shadow 10'.


Select a ColorWhiz ${ }^{\text {TM }}$ color
for the shadow and click 'OK'. Drag the wire frame to form a drop shadow well below the original character. Click 'Select' to draw the shadow.

4
Deselect the character and shadow, then re-select the shadow only.


Use the 'Vertical Arch' Distortion tool and hold the Control key to arch the shadow.


Click 'OK' to have the arch distortion applied to the shadow.

## Creating Double Shadows

Many interesting shadow styles can be created by applying one shadow to another.

The cast and block shadows can be combined ...


Type your text and make any changes you need.


Select 'Shadow 1' from the Shadow Options dialog box and select a color for the shadow.


Drag the wire frame to set the block shadow and click 'Select'.


Select 'Shadow 16' from the Shadow Options dialog box, and choose a different color for the cast shadow.


Drag the wire frame to set the direction and length of the shadow.

## Learning Guide

## Node Edit Introduction

## Introduction . . .

Everything you can cut in vinyl-text, circles, borders, panels - are made from one or more independent shapes called Polygons.

Each of these shapes is defined by its outline (It is the outline that is cut).
Outlines, in turn, are made of line segments called Vectors.
Vectors can be straight or curved, of any length and be drawn in any direction. When joined together, vectors form a Path.

The shape, length and direction of a vector is controlled by small 'shapes' on the vector, called Nodes.

By node editing (moving and changing the kind of nodes controlling vectors), you can change the outline shape of objects.


Two vector paths forming the two polygons of a letter 'D'.


## Before You Start . . .

Graphics resulting from scanning are composed of 'Pixels' (rows of black or white dots), and have no outline. Before these 'Bitmaps' can be node edited, they must first be 'Vectorised'.
Text which you have typed onto the Work Space is stored and handled by the program in a format which you can edit as 'text'.
Before text can be node edited, it must be changed into the same format as other vectorised graphics objects.
Click on the 'Text-Grap(hics)' tool icon on the Toolbar, or select 'Convert to Curves' from the 'Arrange' menu.

## Starting the Node Editor



With a vector graphic object selected:

Click 'Node Edit' on the Toolbar, Or
Select 'Edit Graphic' on the 'Edit' menu or
Double click on the vector object.

## Kinds of Nodes

There are three kinds of nodes . .

## Corner Node:

. . . joins straight line vectors

## Tangent Node:

. . . creates a smooth join between a straight line vector and a curved vector.

## Curve Node:

determines the degree of curvature of a curved vector.

## Selecting Nodes:

There are several ways to select nodes. Unselected nodes appear in green. As nodes are selected they change to orange.


Click on a node to select it.


Holding 'Shift' and clicking on additional nodes selects them.


Dragging a box around a group of nodes selects them all.

## Opening The Node Editor Toolbox:

After starting the Node Editor, click the right mouse button in the Work Space area to open the Toolbox.

With the required nodes selected, click an editing tool.


## Using Keyboard Key Shortcuts Many editing tools can be selected by on the keyboard Affected nodes. may or the mouse pointer can be in place on the keyboard. Affected nodes may be already selected, or the mouse pointer can be in place over a single node.

| (B) Break path |  |
| :--- | :--- |
| (J) | Join nodes |
| $(5)$ | Sharpen |
| $\square$ | Right Angle |

Many editing tools can be selected by simply pressing a key
(C) Change node
(A) Add a node
(B) Remove node
(D) Line up nodes
(C) Change node
(A) Add a node
(R) Remove node
(L) Line up nodes

F Flip Selection
(U) Copy Length (I) Apply Length (Q) Copy Angle
(W) Apply Angle

Selecting a

## Section of a Path:

Click on the node where you want to start a selection.

Holding 'Ctrl'
and selecting
a second node on the same path, will select all the nodes between the two selected points.


With these nodes selected you may choose the alternate path, or 'Flip Selection' by pressing the 'F' Key.

## Moving Nodes:

Grab any selected node or group of nodes, and drag with the mouse pointer.


You can
Nodes will 'stick' to guidelines if moved towards them.
use the 'nudge' keyboard arrow keys to move selected nodes.


## Removing Nodes:



Place the mouse pointer on a node or select a node or group of nodes.

2
Click the right mouse button and select the 'Remove' tool. OR
Press 'R' on the keyboard.


Node(s) will be removed and the vector will be redrawn.

Adding in Extra Nodes:


Place the mouse pointer on the line segment where a node is needed.


Click the right mouse button and select the 'Add' tool.

## $0 R$

Press 'A' on the keyboard.
 form in the last selected node type.

## Changing Node Type:

Click the right mouse button on a single node or a node of a selected group.


Click the required node change tool icon from the Toolbox.

Place the mouse pointer over a node, or select a node or group of nodes.


Each press of the ' C ' key will change node type to the next type in sequence.

# Node Edit Using Node Editing Tools - 2 

Breaking and Joining Paths:


Place the mouse pointer on the line segment where it is to be broken open.
(2)

Click the right mouse button and select the 'Break' tool.


Press 'B' on the keyboard.


The path is broken and nodes added at the break.


You can't cut an open path. The nodes at the free ends can be joined to make new closed paths.


Simply drag one free node over another and they join automatically.

OR


Select two free nodes and press the 'J' key, or click the right mouse button and select the 'Join' tool.


## The 'Square' or Right Angle Tool:

(1)
Place the mouse pointer over the square node you want to edit.


Click the right mouse button and select the 'Square' tool.


Press 'T' on the keyboard.
3

The node is moved to form a right angle:


## Lining Up Nodes:



Select the node to align with. Place the mouse pointer over a node to be aligned.

## 4



The node aligns to the nearest vertical or horizontal selected node.


AND
-. If two nodes are selected as a reference, other nodes align to the angled line between them.

AND.. Nodes can be aligned to horizontal or vertical specifically.


Press the 'L' key with the pointer over the reference node. Select all the nodes to be aligned and press 'H' key for horizontal or 'V' key for vertical alignment.


## Learning Guide

## Node Edit Using Node Editing Tools - 3



## The 'Sharpen' Tool:

Select curve nodes between square nodes.

Click the right
mouse hand
and select button, and select the 'Sharpen' tool.


Curve nodes
 are replaced by a single square node.



## Learning Guide



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## Learning Guide

## Node Edit <br> Using Node Editing Tools - 5

## ‘To Bezier’ Tool:

Select the nodes which are at the start and end of the section you want to convert to a bezier arc.


Click the right mouse button, select the 'To Bezier' tool.
 he

To Bezzer

3 A green curve guide appears, and red 'control lines' extend from the start and end nodes. Drag the nodes at the end of the control lines to set the size of the arc.


Click the right mouse button to draw the bezier arc.

## Changing Node Colors



With a graphics object selected click 'Node Edit' on the Toolbar, or select 'Edit Graphic' on the 'Edit' menu.

Sometimes it is necessary to change the color of nodes or lines to a more
contrasting color for easier editing.


The 'Color Assign Dialog' box will appear. Click on the 'Line', 'Default' or 'Selected Node Color' you want to change. Click 'OK'.

## Correcting Mistakes

You can undo any change or sequence of changes you have made in 'Node Edit' just the same as you can for any other program operation. Simply press 'Undo' from the 'Edit' menu or


You can also 'Undo' the 'Undo' operation by selecting 'Redo' just click the 'Redo' tool on the
$\qquad$ select the 'Undo' tool on the Toolbar. Toolbar or select the current Undo option on the 'Edit' menu.

## Node Edit Using Node Editing Tools - 6

## 'Set Length' Tool:



Select the node you want to measure from.

(2)

Keeping this node selected select the node or nodes whose distance from the reference node you want to set. (Use the 'SHIFT' key to select all the nodes)



Click the Right Mouse button to open the Node Edit toolbox. Select the 'Set Len' tool.


Enter a distance into the
 Set Length' dialog box and click OK. The selected node or nodes will be moved to the set distance keeping their original angles.


## 'Set Angle' Tool:

(1)
Select the node you want to use as the reference.


Keeping this node selected select the node or nodes you want to place at an angle to it. (Use the 'SHIFT' key to select all the nodes)


The 'Set Angle' tool allows you to place selected node or nodes at a precise angle relative to another node.

Enter an angle into the 'Set Angle' dialog box and click OK. The selected node or nodes will be moved to the set angle keeping their original distances.
Click the Right Mouse button to open the Node Edit toolbox. Select the 'Set Ang' tool.



## Learning Guide Schedule

## Cutting Your Work in Vinyl

| AA11 | First Time Setup |
| :---: | :---: |
| AA2 | Setting Up the Cutter - 1 |
| AA3 | Setting Up the Cutter - 2 |
| AA4 | Cutter Toolbar and Screen |
| AA5 | Vinyl Cutting Options - 1 (Saving Space) |
| AA6 | Vinyl Cutting Options - 2 (Weeding, Multiple Copies) |
| AA7 | Vinyl Cutting Options - 3 (Registration Marks, Orientation) |
| AA8 | Sending Data to Your Cutter |
| AA9 | Using VinyISaver ${ }^{\text {TM }}$ |
| AA10 | Cutting Large Signs - Tiling Options |
| AA11 | Using the Cut Manager |
| AA12 | Cutting Prints - 1 <br> - Creating a Cut Mask Around a Bitmap |
| AA13 | Cutting Prints - 2 <br> - Creating a 'Cut Mask' Around Vector and Bitmap Objects |
| AA14 | Cutting Prints - 3 <br> - Creating a 'Cut Mask' from a 'Bitmap Mask' |
| AA15 | Cutting Across a Network |
|  | - Setting Up a Server or Target Computer |
| AA16 | - Client or Host Computer Setup |

## Learning Guide

## Cutting Your Work in Vinyl First-time Setup

Before you cut your work you will need to choose the type of equipment you are going to use, and setup the program to communicate with it.


PAGE AA1

Before starting to cut your work, there are a few setup options you may need to choose or change.
Rolls of vinyl are commercially supplied in various widths, such as 381 mm ( 15 in. ), $460 \mathrm{~mm}, 510 \mathrm{~mm}$ (20in.), 610 mm (24in.) and 1200 mm . The cutter's pinch rollers require $10-15 \mathrm{~mm}$ along each side.
1 Enter the cuttable width of your next vinyl stock in the 'Width' box. For a 610 mm wide sheet, 585 mm . is a recommended cuttable width.
Enter new values if you change to a new vinyl width.

- Check the length of vinyl you need to cut in the 'Length' box. Enter a new value if necessary. Some cutters such as the Roland CAMM-1 have a restriction on the cuttable length (e.g. 1500 mm ).
Check that the length of offcuts or sheets is adequate. If your work is larger than the vinyl sheet, the program will arrange the cutting into 'tiles'. You can enter an amount to overlap these tiles, or enter zero to 'butt' join them.

The 'X Axis Override' feature can improve vinyl tracking on longer jobs by controlling the cutter's speed when cutting beyond a selected length.


To use the feature, tick 'X Axis Override' and enter the distance at which you want the cutter to slow down in the 'Settings' entry box. Then choose how much you want the speed to be reduced and click 'OK'.
 normally returned to the start of the page at the end of a job. Tick 'Advance Page After Job' if you want to move to the end instead allowing the cut vinyl area to be removed from the front of the cutter. You can enter a 'Gap' value to separate each sheet in the entry box.

## Learning Guide

## Cutting Your Work in Vinyl Setting Up The Cutter - 2

## continued..

Tick the 'Pre-Feed Vinyl' feature if you want the length of vinyl needed for the current job to be fed slowly off the roll before cutting.

Pre-feeding the vinyl insures that the length of vinyl required is both available and that the pinch rollers will not slip when trying to feed vinyl off a roll at full cutting speed.

The time taken to cut a job is proportional to the distance the cutting head has to travel. Selecting the 'Sort Before Cutting' option allows the program to sort cutting paths so as to reduce head movement to an optimum for the layout. Objects will cut with general overall travel from left to right of the vinyl sheet.

8
It is general practice to use the Work Space to arrange all the elements of the sign within a border representing the sign size whilst using the areas outside the Work Space as a 'scratch pad'.
All the objects on your screen can be included for cutting irrespective of the Work Space border if you wish to. Leave the option not selected to include all screen objects.
Select the option to choose only Work Space objects for cutting.


Once the outside of a small object is cut, cutting an object enclosed within it may cause the vinyl of the outer object to be dislodged. You can avoid such cutting mishaps when cutting small objects by ticking the 'Cut Holes First' option.


Once you have finished creating your artwork in the Work Space, click the 'Cutter' tool on the toolbar or select 'Cutter' from the 'File'
menu to open the cutting screen or select 'Cutter' from the 'File'
menu to open the cutting screen and Cutter menu.

Your artwork will be color separated and a selected color object will be displayed inside a blue cutting tile ready for sending to your cutter.
You may choose any color as the first to be cut - just click the color on the color listing and load the same colored vinyl into your cutter.

The 'sign' border now represents the vinyl in your cutter and will be sized to the dimensions you have last entered into your cutter's setup. Click 'Setup' and enter new dimensions if necessary.



O
Your cutter (represented by the dotted rectangle) will feed vinyl to the left and the object inside the blue tile will cut in the location depicted on the representation of the vinyl sheet.

## Selecting Colors to Cut

You can choose to cut more than one color on the one vinyl tile. You may, for instance, wish to use the background medium's color as one of the colors in your artwork and weed it out from its surroundings. Hold the 'Cntl' key to add colors to be cut.


You may choose colors in any order that suits you. Click the color you next want to cut.

PAGE AA4

## Fit to Origin

One of the larger expenses for the computerised sign-shop is that of vinyl cutting film. Placing your work for cutting where the least vinyl is used, is a simple economical measure you can take.
Selecting the 'Fit to Origin' option from the left panel moves the cuttable objects to the bottom left corner of the vinyl
 sheet.

## Using Space Save Options

Where it is convenient to reduce a larger sign block to individual elements, vinyl space can be saved by using the 'Space Save' options.

## ENTER HERE

Space between lines of text can be reduced where it is convenient to install individual lines.


Select the 'Save Space' options tab.
Choose 'Split text into lines' and select 'Save space vertically' to reclaim wasted vinyl between text lines.


Where lettering is large or objects are spread out, further space can be saved by converting text to graphics objects and selecting 'Save space horizontally'. The original relationships will need to be restored with the sign installation.

## Cutting Your Work in Vinyl Cutting Options - 2

## Weeding Options

Once the objects forming your sign have been cut, you need to remove the waste vinyl from around each object. This operation is termed 'weeding'. There are a number of weeding options you can choose to make the process easier.

'Weed All' cuts a single 'weeding box' around all of the objects being cut in the current tile. Enter an offset value for the box and tick the option.
'Easy Weed' cuts a 'weeding box' around each object inside the tile being cut. If you have also selected 'Weed All' enter a smaller offset and tick the option.

'Power Weed' is available when text is being cut. An extra horizontal midline is cut which allows you to weed from both top and bottom of the text.

## Making Multiple Copies

To make many repeat copies of a single object on the Work Space, enter the number of repeats required into the 'No. Of Copies' entry box in the left option panel.
You can cut the maximum number for the available vinyl area by ticking 'Fill area with copies'. Enter a value to separate each copy both vertically and horizontally.


Copies are arrayed into the available vinyl sheet width with the same separation between each one.
 selecting the 'Weed Each Copy' option. Select an offset value for the weed box around each copy.

## Cutting Your Work in Vinyl Cutting Options - 3

## Rotate Across Vinyl

Sometimes you can save vinyl by cutting appropriately sized graphics across the width of the vinyl sheet rather than along its length. Select 'Rotate Across Vinyl' from the left option panel.
The graphic on the cutting screen will change its orientation but the Work Space layout will remain unaffected.

## Mirror

Installing graphics onto the inside of glass windows or doors or transparent panels requires that the graphic be cut as a 'mirror image'. You need not mirror the art work on the Work Space to cut the mirror image.
 Select the 'Mirror' option from the left option panel. The Work Space will be unaffected.

## Selected Only

Perhaps you need to recut only some objects from a particular sign. Cutting a selection of graphics can be achieved by first selecting the objects on the Work space and then choosing the 'Selected Only' option from the left option panel in the cutting window. Only the selected objects appear in the cutting tile.


## Cutting Registration Marks

Draw at least three registration marks around the graphic (but not on it). You can choose any color you like. The same marks will be cut automatically with each color tile.
Overlay the marks exactly as you assemble your sign.

Assembly of a multi-colored sign can be made much easier if each color includes registration marks which are cut with each color. To cut registration marks, select 'Registration Mark' from the 'Draw' menu and select a style and suitable size.


PAGE AA7

## Learning Guide

## Cutting Your Work in Vinyl Sending Your Work to the Cutter

Once you have:


Completed your artwork on the Work Space
Selected 'Cutter' from the toolbar or the 'File' menu to open the cutting window
Changed values in 'Setup', such as vinyl dimensions, if required
Selected the color to be cut first
Selected 'Space Save’ options
Selected 'weeding' and reorientation options from the left option panel
Loaded the selected color and size of vinyl into the cutter and made it 'Ready'
You are ready to send a cutting tile to your cutter.

## (1) <br> 



## Select 'CUT!' from the cutter toolbar

The 'Cut Tile’ window opens
Before sending data to the cutter, you can use the 'Move Cutter to:' option to check that you have sufficient vinyl length loaded in your cutter to complete cutting the tile and that the tile will fit within the vinyl sheet. You can also test the 'tracking' of vinyl loaded in the cutter.

To check the amount of vinyl and tracking, click the 'Maximum Pos.' Button to send the cutting head to the top right hand corner of the cutting tile. Use the 'Home Position' button to return the head to the origin. Make any tracking changes needed before preceding.

Once tracking and area are confirmed, click the 'Cut Tile' button. Data is sent to the cutter and a progress bar will show each buffer load being transmitted.

Once all tiles have been cut, select 'Finish' from the cutting menu to return to the Work Space.

## Learning Guide

One of the larger expenses for the computerised sign-shop is that of vinyl cutting film.
Many Signwriters save partly used vinyl sheets in order to use smaller unused areas later.
VinyISaver ${ }^{\text {TM }}$ makes it easier to access unused areas of a vinyl sheet, and makes your vinyl operation more profitable.


## Click the 'Cutter' tool icon on the Toolbar or choose 'Cutter' from the 'File' menu. The Cutter Toolbar opens.

| $\begin{aligned} & \frac{\sqrt{4}}{\sqrt{\text { sety }}} \\ & \text { Serup } \end{aligned}$ |  |  |  |  | $\underbrace{\substack{\text { cis } \\ \text { cup }}}_{\text {cut }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |



Choose the 'Tile' button. You may now drag a box around an object on the Work Space. Click to finish forming the box. A blue cutting tile forms around the object and its size appears in the activity windows.


Choose the 'Jog' button, or click the 'Cut!' button and choose 'Jog Cutter' from the Cut Tile window. The Jog Cutter window opens.
Use the arrow buttons
4 to move the cutting head to the bottom left corner of the unused vinyl area.

The central $\circlearrowleft$ button moves the cutter head back to its origin.

- You may also enter the vertical and horizontal distances into the ' $X / Y$ ' boxes.

6 Test the tile size on the vinyl by pressing the 'Tile Maximum' and 'Tile Home' buttons. The cutter head moves over the tile size on the unused area on the vinyl.

Choose 'Close' from the 'Jog Cutter' dialog box.
Click on the 'Cut!' button and choose 'Cut Tile' from the 'Cut Tile' window. The object will now be cut.
8


Click on the 'Finish' button to exit the Cutter Toolbar.

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## Learning Guide

## Cutting Your Work in Vinyl Cutting a Large Sign

Signs can be much larger than the dimensions of the vinyl media you are using. Large signs need to be cut in sections or 'tiles' with each tile being fitted together to assemble the final sign.


Prepare your artwork at the full size you want to install it.


Click 'Cutter' on the Toolbar or select 'Cutter' from the 'File' menu

Select 'Setup' if you need to change your tile overlap settings or 'Trim Tiles' option. (Remember that vinyls shrink by varying amounts. Overlap tiles by sufficient to account for shrinkage).

## (3)

Your large sign will be automatically tiled to the largest tile size your vinyl current dimensions will allow including any overlap value

Each tile has a blue border and is sequentially numbered.



Tiles may not be automatically drawn at the most convenient places for cutting. You can drag any tile edge to best suit the job.
Try to avoid small tiles and try to reduce overlaps. Assembly of the sign will be easier and neater. Try to make empty tiles as large as possible to reduce vinyl usage.


You can restore the original automatic tiling at any time by selecting 'Auto Tile' from the cutting menu.


Once all tiles have been cut select ‘Finish' from the cutting menu to return to the Work Space.

Choose ‘Cut!’ from the cutter toolbar. The 'Cut Tile' window will open.
Tiles will appear in sequential order but you can cut tiles in any order you wish by entering the tile number into the 'Next Tile to Cut' entry box. Selected tiles will have a red border.
Set 'Pause between tiles’ to check tracking for each tile using the 'Move Cutter to:' option.
Choose 'Skip Tile' to pass over any empty tiles
Click 'Cut Tile’ to send tile data to your cutter.

The Cut Manager allows you to continue to use the program while it processes your cutting jobs in the background, otherwise the program is tied up processing cutting jobs until they are complete.

1


## Selecting the Cut Manager:

Click the 'Setup' icon on the 'Cutter' Toolbar. Tick 'Use Cut Manager' option and click 'OK'. All future cutting jobs will now be handled by the Cut Manager. To diable the Cut Manager, untick the option.

(2)Opening the Cut Manager:

If the Cut Manager is enabled, it will appear as an icon on your Windows ${ }^{\text {TM }}$ Taskbar when a cutting job is being processed. You can click this icon to open the Cut Manager window where all current cut jobs will be displayed.

## Reordering Cut Jobs

The job at the top of the job list will be cut first. If you want to change the order of a cutting job, click on the job in the list and select the 'up' or 'down' icon on the Toolbar.

CUTJOB - Blazer Cut Man...

## Cutting a Saved Cut Job

Click the 'Open File' icon on the Toolbar, select the file to cut and press the "Open' button

Saving a Cut Job Click on the job to highlight it and click the 'Save' icon on the Toolbar, give the file a name then press the 'Save' button.

## Deleting a Cut Job

Click on the job in the list and press the 'Trashcan' icon on the Toolbar


## Setting the Priority for Cut Jobs

To alter how much time Windows allocates to cutting jobs in the background select the setting on the 'Priority' menu.


You can cut an outline around work you have printed. The method you use to do this depends on
 the kind of hardware you are using. In all cases, you must create a 'Cut Mask' before you can cut work that you have printed.If you have a printer with an inbuilt cutter you should follow the steps for using a 'Cut Mask'.
. If you have a separate printer and cutter you should follow the steps for 'Cut a Print' to get correct registration of printed work in your cutter.

## Creating a 'Cut Mask' Around a Bitmap



Snap guidelines to the edges of the bitmap.


With only this rectangle selected, select 'Put to Back' on the 'Arrange' menu.


In order to prevent the cut mask outline from printing, click the white color on the ColorWhiz



Select the 'Cut Mask tool from the Toolbar or select 'Cut Mask ON/OFF' from the 'Manipulate' menu.

PAGE AA12

## Creating a ‘Cut Mask’ Around Vector and Bitmap Objects

Place guidelines around the work. to assist relocating the finished mask.



Using the duplicate only snap guidelines to any bitmaps and draw rectangles over them to create vector paths around them.


## 3

Again using the duplicate only, select the outermost vector paths of all vector objects

You may need to 'Split' the objects and delete their inner vector paths.



Total Weld all these vector objects together to create the final mask object.



Select the 'Cut Mask tool from the Toolbar or select 'Cut Mask ON/OFF' from the 'Manipulate' menu.

PAGE AA13

## Creating a ‘Cut Mask’ From a ‘Bitmap Mask’

(1)
Choose a bitmap picture you wish to mask for both printing and cutting.


(2)
Using shape tools from the 'Draw' menu or the 'Polyline' tool, draw a vector object around the area you want to mask.



With only the mask object selected, choose 'Clipboard Copy' from the 'Edit' menu.

With both bitmap and mask selected, use the 'Combine'command to combine your vector and bitmap objects and deselect them. Reselect both objects and 'Group' them
(5)

Being careful not to move the grouped objects, choose 'Paste' from the 'Edit' menu to replace the mask object exactly into place.


With only this mask object selected, select 'Put to Back' on the 'Arrange' menu.

In order to prevent the cut mask outline from printing, click the white color on the ColorWhiz ${ }^{\text {TM }}$ pallette

Select the 'Cut Mask tool from the Toolbar or select 'Cut Mask ON/OFF' from the 'Manipulate' menu.

Cut masks may be grouped with other objects without affecting their printing or cutting attributes.

PAGE AA14

## Setting up a Server or Target Computer

Computers can be networked together in various configurations such as 'Peer to Peer' or 'Client - Server'. You can have vinyl cutters, printers and other peripherals connected to computers which share the network and access them from a 'Client' or 'Host' workstation on the same network.
In order to send cutting file information to a specific network cutter (the Target Cutter), the computer it is connected to (the Server or Target Computer) needs to be setup.


To setup a Server or Target computer you need to run the SignBlazer5 Installation CD on this computer and select the Network Server option.

After installation, the Target Computer will have:

- a folder called 'SignBlazer5\Cut manager\Input'
- a copy of the program "Cutman32.exe" installed
- a shortcut icon for "Cutman32" on the desktop

The Target computer does not need a Software Protection Device (or dongle) installed.

If the Target Computer is running Windows95/98 operating system, ensure that file sharing is enabled:

In 'Control Panel', open 'Network'. Click 'Configuration' tab and select 'File and Print Sharing ...' and then tick the option: 'I want to be able to give others access to my files'
In Windows 'Explorer', locate the folder 'SSignBlazer5ICut manager IInput' and click on it using Right Mouse button. Select 'Sharing ...' In 'Properties' have the folder 'Shared as ...' 'Input" and 'Full' 'Access type' selected. Do not enter a password. Click OK.

Note the target cutter's make and model and the port it is connected to. Open 'Control Panel', 'Network' and 'Identification' tab. Note the Target Computer's network name.

Client or Host Computers


5 Run the program 'Cutman32' by double clicking the desktop icon.
If a network cutter is used often, it may be useful to copy the 'Cutman32' shortcut into the Target Computer's Startup folder so that the Cut Manager program will run whenever that computer is started.

## Client or Host Computer Setup

## $\square$



A 'Client' or 'Host' computer to be used for netwok cutting is a networked computer which is host to a registered running copy of SignBlazer5. Each Client or Host workstation on a network must have its own Software Protection Device (or dongle). A Client or Host computer may or may not have a vinyl cutter attached to it
For a Client or Host computer to cut across a network, it needs to be setup.


## Learning Guide Schedule

Printing<br>Y1 The Printer Toolbar<br>Y1 Print Registration Marks<br>Y1 Selecting the Colors to Print<br>Y2 Printer Selection and Setup<br>Y3 Windows Printer Driver Setup<br>Y4 Fitting Work to the Page<br>Y5 Printing a Grid<br>Y5 Starting the Print<br>Y6 Large Format Printing<br>Y7 Color Management<br>Printer Output Options

Click the 'Print' tool icon on the Toolbar, or select 'Print' from the 'File' menu.


## Print Registration Marks

As and aid to show the boundaries of your print job, you can use registration marks at the edges of your work.

(1)
Click the tool icon on the Printer Toolbar to open the Registration Marks dialog box box.


2
To select the registration marks that will be used when printing, either click on a box (or boxes) in the corners of the square, or press the 'All' or 'None' button. Then press 'OK' to save these settings.

## Selecting the Colors to Print

If you click the 'PRINT!' tool icon on the Printing Toolbar, all colors in your work will be automatically used in the print job. However, if you need to print only some of the colors, or print the colors separately; you can make changes by choosing the 'Color' tool icon on the Printer toolbar. This opens the Color Selection dialog box.

Colors will be printed in the order that they appear in this window.

To print a number of colors on the one sheet select 'Output All'. Alternately, to print each color on a separate sheet in sequence, tick the 'Output Separate' option.
'Colors Used' list shows all the colors used in your drawing. Use the buttons in the centre to transfer colors to the 'Colors to Output' window for printing.


To print in color, you need a color printer (which you have set for color printing); otherwise colors will be represented by shades of grey.


You can transfer all the colors used to the 'Colors to Output' window by pressing the Add All button. You may clear the list by pressing Remove All.

You may insert a color into the 'Colors to Output' list. First click the place in the list you want to insert a color. The new color will be inserted directly above the place you have selected. Click the 'Color Used' you want inserted. Press 'Insert ->>'.

Clicking on a 'Color Used' and then pressing 'Add ->>', or double clicking a color, places that color onto the bottom of the 'Colors to Output' list.
Clicking a 'Color to Output' and then pressing '<<- Remove', or double clicking on a color deletes the color from the list.

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## Learning Guide

Printing-2 Printer Selection and Setup

Click the 'Print' tool icon on the Toolbar, or select 'Print' from the 'File' menu. Then click the 'Setup' tool icon to open the 'Setup" dialog box.

Before you can print, you must select the printer you wish to use from the drop down list. You may select from a range of Large Format printers or select "Windows Printer Driver" to use a printer already installed under the Windows operating system

If you want to print arrayed copies of an item on the same page, enter the number of copies into the entry box and tick the layout arrangement you want. Tick "across" to build columns and "along" to build rows and enter the spacing you you want between each item into the spacing entry boxes.

Tick 'Use Tile Printing' if your work is larger than the page you are printing, and you want the printing to be arranged into sections called tiles.

## Tile to Object Extents:

All of your work will be tiled, even if your work is larger than the page size.

Tile to Work Space Extents:
Only those parts of your work which fall inside the Workspace will be tiled if they are larger than the page size.

## Tile Overlap

You can enter an amount to overlap tiles, or enter zero to butt join them.

Press "Printer Configure" to select options for the selected printer.
If you have selected 'Windows Printer Driver', the Windows Print Setup dialog box will appear. See Windows Printer Driver Setup.
But if you have selected a large format printer, the Large Format Printing dialog box


Tick the 'Color Separations' option to have items of the same screen color printed in black on separate sheets. This is useful for preparing screen printing positives.

Select the output Port which the selected printer is connected to. You may select Parallel Ports LPT1 to 4 or Communications Ports COM1 to 4 provided that the port hardware is present and you use the correct communication cable type.

15
To access the 'Windows Printer Driver' port setting, press the 'Printer Configure' button, and then press the 'Options' button.

You can make fine adjustment to the placement of printed work on the page by entering a value to specify the size of the Right Margin.

Tick the box to include items drawn with the 'Draw Dimensions' tool in your print.

## Click on the 'OK' button to

 save your new settings.
## Learning Guide

## Printing - 3 Windows Printer Driver Setup



Click the 'Setup' tool icon on the Printer Toolbar. Select 'Windows Printer Driver' in the 'Printer' drop down list.. Then press the 'Printer Configure' button. The Print Setup dialog box opens.


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## Printing-4 Fitting Your Work to the Page

## Using 'Rotate' 1 $\xrightarrow[\text { Print }]{\substack{\text { Nict } \\ \text { Pr }}}$ Select <br> 

After selecting the 'Print' function, your work will be seen inside a representation of the page currently selected in your printer setup.
You may find that the shape of the page area would fit your work better if it was rotated at right angles. You can change the orientation in 'Setup' or simply ...


Click the 'Rotate' tool icon to change the page outline between 'portrait' and 'landscape' settings.


You may also grab any corner node of the page outline and resize it, or move the outline, to better fit your work, or any part of it, into the page area.

## Using 'Fit' <br> $x_{\text {Fif }}$

Clicking the 'Fit' tool icon opens the 'Fit Page To' dialog box allowing you to choose different Work Space areas to be fitted to the page for printing.

Choosing 'Selected Objects' places only the currently selected


PAGE Y4

## Printing-5 Printing a Grid

This program allows you to print a grid with selectable horizontal and vertical spacings onto paper or clear film with a laser printer for use with projectors.


Click the 'Grid' tool icon on the Printer Toolbar.

The 'Print Grid' dialog box opens.
2
Enable the grid by ticking the 'Print Grid' box.

Tick this box to have the Work Space border printed as well.


Enter the horizontal ( X ) and vertical ( Y ) grid spacing you want to print into the entry boxes. Click 'OK'. The grid appears on the Work Space and will be printed with your work.

Printing a grid over the printout of a sign, can
prove a useful guide for placing the various
 pieces of cut vinyl into their correct places, during production of a sign.

Starting the Print


Once you have completed your printer setup, simply click the 'PRINT!' tool icon on the Printer Toolbar.

The 'Printing' window opens, and shows the printer being used, and the progress of the print. To stop printing at any time, click the 'Cancel' button.


When you have completed printing, you can return to normal operations by clicking the 'Finish' tool icon on the Printer Toolbar.

## Learning Guide

## Printing-6 Large Format Printing

Large Format Printing requires that bitmaps, often created from small area scanned images, are reproduced on a much larger scale. Simply changing a bitmap to a larger scale will increase the size of each pixel proportionately until individual pixels become visible and the image will look jagged and 'blocky'. Increasing the scale of a bitmap but retaining a resolution suitable for its intended viewing distance requires a 'Raster Image Processor' or 'RIP'.
To print your work using the RIP:


OR select the Large Format Printer tool on the Toolbar


Press the 'Setup' tool icon on the Printer Toolbar. Ensure that your large format printer is selected in the 'Printer' drop down list. Press the 'Printer Configure' button, the Large Format Printing dialog box will appear, and the 'General' page becomes visible.

You can save all your settings for large format printing using this box. Once you have completed your desired settings, type a name into this box that identifies this group of selections. Press the 'Save' button.
To use a previously saved setup, click on the down arrow to the left of the box, and select an item from the list.

To delete a setup, select the setup from the drop down list, then press the 'Delete' key.

Type a value into the 'Width' and 'Length' boxes to represent the size of the media that you are printing on.

Click on either 'Top to Bottom' or 'Bottom to Top', to set the direction of printing on the output media.


With the program running on your computer, press the F1 key or select "Search" from the "Help" menu In the Help - Search window, type "cal ... " in the top entry box and then select "calibration" from the index listing.

## Learning Guide

## Printing-7 Color Management

Getting the best out of your printer and scanner can be assisted by selecting Color Correction Profiles from the Color Management system. Each piece of equipment, printer or scanner, has its own particular engineering and method of translating color and data. You can remove minor color distortions by setting an appropriate Color Correction profile for each piece of equipment.


If your printer has a color profile included with its installation package, you can also find it in the drop down list in the 'Printer Setup' window. Select the Color Correction profile that best suits the printer you are using.


Printer Output Options

## Printing Color Bars and File Data



Your proofing printouts can be enhanced to carry CMYK ink color bars down the page edge and print the document reference data.

Click the 'Regist' tool from the Printer Toolbar.


To print color reference bars along an edge, tick 'Left' or 'Right' in the 'Color Bars' option panel in the 'Registration Marks' window.

To have the file data printed choose a page location from the 'Print Data' option panel in the 'Registration Marks' window.

Daneing Classes

starting soom!

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## Learning Guide Schedule

## Technical Notes:

i Program Installation
ii System Requirements \&
Recommendations
iii Producing Artwork in Other
Programs
iv Notes For Users of CoreIDRAW! 4
v Importing Graphics Files from Macintosh and PC Programs
vi Using Photoshop Plugins
vii Hot Key (Shortcut) Summary

## Installing the Program

Before commencing the installation it will help if you:

- Know the brands of your vinyl cutter and printer and which ports they are connected to. (If unsure you could check the settings in other programs
 on your system - or you can make temporary selections during installation and change them later)
- Make sure you have sufficient free disk space to install the program files, fonts, and the clipart files (approx 200 MB)
- Page vi gives details of additional space required for ‘Sample’ files if you want to install them.

Insert the CD ROM from your package into your CD ROM drive tray.
The installation program will now automatically start.

- Click on the various information icons on the install program to learn important information, before continuing.

Follow the on-screen instructions. The program will now be installed onto your hard disk. (If you should experience any difficulties installing the program, please contact your Dealer)
Remove the software lock or 'dongle' from your package, being careful not to touch its plug pins (static discharge can cause them to fail). Insert it into any parallel output port on your computer, securing it in place with its screws.

The dongle is a software protection device which must be present for the program to run.

## Starting the Program

Double click the program 'shotcut icon' on your desktop or -
Click the Windows ${ }^{\text {TM }}$ 'Start' button and then click 'Programs' from the popup menu.
Locate and open the program group on the popup listing and click the program icon.
With a copy of the program running, you can start other copies of the program.

## Installation Notes and System Requirements

## Minimum System Configuration:

486 Processor
32 MB RAM
CD ROM
Windows 98 Operating System
Optimum System Configuration:
Pentium II Processor
64 MB RAM
CD ROM
Windows 98/ME/2000/NT Operating System
A Modem and Internet Access is required for accessing the Blazer Web Site and using the
 Program's E-Mail capabilities

## Large File Handling Requirements:

In order to successfully handle large files $>100 \mathrm{MB}$ as may be encountered with Large Format printing files, RAM of 128 MB up to 256 MB is recommended.

## Installation of Sample Files

In order to improve productivity as quickly as possible, many 'sample files' are included with your installation CD. The 'Sample Files' section takes up 350MB on your CD and need not be installed or copied to your hard disk unless you want to. These files can be opened and viewed as needed directly from your installation CD disc. If you have room and wish to install these files, you must choose "Custom Installation" and tick the "Sample Files" box.

## Learning Guide

## Producing Artwork in Other Programs

If you wish to create text or graphics in a a Computer Aided Drawing (CAD) program such as 'CoreIDRAW!', save the file as an 'EPS' file.

There are a few important instructions to follow before saving your work to


Make sure all your work (text and graphics) has a solid color fill and no outline.

Make sure that all text has been changed into individual graphics. In CorelDRAW! 3, use 'Convert to Curves' followed by 'Break Apart' in the 'Arrange' menu. Other CAD programs have similar commands.

Make sure to select 'Encapsulated PostScript' as the export file type.

You can give any name ( like FRED or 123 )
to an 'EPS' file, and then use the same file over and over again. This will save you having to regularly delete many unwanted files.
'Postscript' is a computer language originally invented by Adobe Systems Inc. for sending instructions to printers.

Postscript instructions can be placed into a computer file, which usually has a name ending in '.EPS' short for 'Encapsulated PostScript'


Many programs now use this 'EPS' format as a good way of exchanging graphical files. For example, artwork from a program like 'CoreIDRAW!' can be saved as an 'EPS' file, and then be imported into the program.

## Learning Guide

## Producing Artwork in Other Programs

## Notes For Users of CoreIDRAW! 4

(1)Differences exist between the 'EPS' Export Filters of some updates to CoreIDRAW! Version 4. To be sure that you can export CoreIDRAW! 4 files correctly into the program, you need to be using CoreIDRAW! 4, Version B, Patch 3 or later.


If you are exporting text using fonts in 'ATM' (Adobe Type Manager) format, you must convert the text to graphics before export. Select 'Convert to Curves' from the 'Arrange' menu.

Your text should have solid color fill and no outline.


There is more than one 'EPS' export format available in the export 'Files of Type' listing. Choose 'Encapsulated PostScript *.EPS' to correctly export your files for use in the program.

For optimum results set 'Header Resolution' to 75 dpi .

## Notes iv

## Importing Files From IBM PC and Macintosh Programs

## Importing Graphics Files from IBM PC Programs such as CoreIDRAW and Adobe Illustrator and from 'Mac' programs such as Freehand and Adobe Illustrator :

The Apple Macintosh computer saves information on disk in its own distinct format. When saving files from a 'Mac' they must be saved onto an 'IBM' formatted disk, using the 'IBM PC' option. Do NOT compress Mac files before exporting them.

Bitmaps can be imported directly using 'File', 'Import'. All supported file types are listed at the top of the Import window.

Successful importation of Vector Files requires holding to a few rules when exporting from the host program.
Convert all editable text to 'Curves' or 'Paths'
Separate out any bitmaps and export them using bitmap formats such as 'TIF', 'JPG' etc
3) Remove all 'group’ structures and 'Split' or 'Break Apart' all objects into individual polygons.

Look for any object that has been 'stroked' - that is has had thickness added to vector outlines. Although 'stroking' is printable in the host program it is not exportable and will not cut or print after importing the file.
Where possible convert 'stroking' into vector paths - in Illustrator use 'Object' menu ... 'Paths' ... 'Outline Path'. If stroked objects have been exported unconverted you will need to use the 'Online' tool to recreate the line thickening.


5 Choose to export files as 'Adobe Illustrator' (*.AI) format Type 3 or higher for preference. Failing this select 'EPS' format but not 'Postscript Interpreted'. Swith off any 'Binary' options.
Having Imported a file, use 'Split' before deleting any unwanted objects such as guidelines (Illustrator guides are combined with the first letter of text lines).

Depending on the host program, imported files may lose their color or come in layered requiring viewing in 'Wireframe' to have all components become visible. Combining appropriate components and selecting their correct color fills will restore the original file.

## Using Plugins

During the Installation process, your system is checked for programs which accept "plugins" and these are installed where possible. If you have a copy of Adobe Photoshop version 3.51 or later, plugins are automatically installed.
Plugins are program elements which permit direct interaction between two programs - Photoshop plugins allow bitmap graphics on the SignBlazer5 screen to be passed directly onto the Photoshop screen where all Photoshop filters and functions can be used before passing the graphic back to the SignBlazer5 screen.


1 Select a bitmap on the screen

(7)The edited image is returned to the SignBlazer5 screen.



Notes vi

## SignBlazer HOT KEY SUMMARY

Key . . .Command

| A | Align |
| :---: | :---: |
| C | Combine |
| D | Distort |
| + | Duplicate (overlay) |
| E | Expand |
| (G) | Group |
| I | Inline/Outline |
| 0 | Online |
| P | Punch |
| R | ConveRt to Curves |
| 5 | Shadow |
| T | SpliT Polygons |
| U | Ungroup |
| W | Total Weld |
| Z | SiZe |
| Y | ArraY |
| SPACE | Select |
| Delitit | Clear |
| [ese | Exit Function |

Function Keys...

Keys... Command


## Drop -Down Menus . . .

 alt $\begin{aligned} & \text { + underlined letter } \\ & \text { in Menu Bar name. }\end{aligned}$
## Drop-Down Menu Items .

Type underlined letter in menu item.
Popup Tool
Palette
Palette ...



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