WELCOME TO EZ-ENGRAVE

FOR THE RECORD

For the record, and to enable us to better assist you, please make note of your serial number, the modules you have purchased, as well as the passwords below.

Serial Number_____

Password_____

Modules_____

INCLUDED WITH EZ-ENGRAVE

This EZ-Engrave User Guide contains installation instructions, an overview of the features, and a summary of files and applications on the CD-ROM included with all s of this product. A registration card is included as part of the EZ-Engrave package. Please take the time to complete and return the registration card.

Registration includes:

- Software updates;
- Special pricing on upgrades;
- Special pricing on other Roland products.

The EZ-Engrave package includes:

- EZ-Engrave User's Manual;
- EZ-Engrave Tutorial Guide;
- Product registration card;
- EZ-Engrave CD-ROM;
- A security device;
- Font Library and Poster, Clip-art and Corporate Logo book;
- EZ-Engrave Fonts and Clip-art CD-ROM.

Whether a new user or are upgrading from a previous of EZ-Engrave, peruse the contents of this guide.

SYSTEM REQUIREMENTS

To use EZ-Engrave the following system settings are required as a minimum:

- a PC 486 with hard disk;
- 8 MB of RAM;
- Microsoft Windows ’95 or NT;
- a graphics monitor (VGA or higher);
- a mouse or tablet supported by Windows ’95 or NT;
- 50 MB of hard disk space available on the hard drive.

It is highly recommended that the system contain a math coprocessor, and be equipped with at least a 100 MB hard disk and 12 MB of RAM to operate Windows at a reasonable speed with EZ-Engrave. In addition, a video system supporting 800 by 600 screen resolution and 256 colors or greater is recommended.

SECURITY DEVICE

EZ-Engrave comes with a software protection device (or “dongle”) to prevent unauthorized use or pirating of the software. This device plugs into a standard parallel port on the back of the computer. The security device is transparent, only EZ-Engrave knows it’s there.

To avoid static discharge be sure to turn off the computer and ground yourself by touching the metal casing of the computer before plugging in the security device.

The security device or 'dongle' (also called the 'plug'), is a sealed parallel plug that allows a pass through for other parallel devices like printers or plotters. To attached the dongle:

- The security device should be placed into the LPT/printer port;
- The printer port is a 25 hole female port;
- Place the dongle, by the 25 pin male end, into the port;
- The other side of the dongle is a 25 hole female port that allows other parallel devices like plotters or printers to be installed in a daisy chain manner.

Be aware that the serial (or COM) port may be the same size as a parallel port but has the female end on the computer. This may cause confusion, as the dongle can be turned around and plugged into the COM port accidentally.

> ***Note:*** The plotter and the security device do NOT have to be plugged into the same port. Some plotters have parallel connections that can be plugged into the back of the security device. The majority of plotters, however, have serial connections and plug directly into a serial port.

If using a switch box with multiple parallel devices, place the security device on the parallel port, then hook up the rest of the cabling through the security device. Keep in mind that the length of parallel cable will determine it's reliability. Over ten feet, the stability of the signal will degrade very quickly -- combinations of switchboxes and parallel cables may exceed this limit and cause security device problems.

If a printer or plotter is installed into the back of the security device, there is normally no difference between turning the printer on before the computer. However, there are some cases where it is necessary for the printer or plotter to be turned on before the computer.

There are certain printers and plotters that can cause problems with the security device. Watch out for 'bi-directional' parallel ports and/or devices -- these ports do not behave like the older ports, and can cause problems with security device errors or by blocking the signal to the printer.

To correct these problems, access the Control Panel... Printers... (if a printer is the problem) and look for the statement 'enable/disable enhanced parallel ports' (or something similar) -- select 'unidirectional printing'. In the case of a plotter, there may be a setting on the plotter that requires disabling, but it is more likely that the ultimate solution lies in getting a second parallel port and placing the security device on it.

Error Locating Security Device Messages

The error message 'Error locating Security device xxxxxxxxxx' where xxx is a series of numbers that alerts EZ-Engrave into thinking that the security device is installed and/or the passwords are installed incorrectly . Double check that the passwords that are installed match up with the dongle number. If they do, contact technical support for further details. If not, re-enter the proper password.

The error message 'Error with last password' indicates that the password was typed into EZ-Engrave incorrectly. The most common mistakes are entering vowels (use the number 0, not the letter O), or putting spaces between passwords. If everything looks exactly as on the password sheet, contact technical support to help fix the problem.

The message 'Error Locating Security Device 1' indicates that EZ-Engrave has attempted to read the security device and has gotten an incorrect value back. This means that the device is either not present or another piece of hardware/software is interfering. If EZ-Engrave stopped working after installing new hardware/software, it is likely that the new device is attempting to use a resource that EZ-Engrave's security device requires. Remove the new hardware/software and try EZ-Engrave again -- if it works, contact the manufacturer of the new hardware/software to see what changes can be made to the new item. If nothing can be done, confirm the default settings (e.g., what port, IRQ, or memory address to use) and contact technical support. The most common hardware devices that interfere with the security device are network cards and sound cards.

A lightning strike or power surge can cause an unpredictable effect on electronics. Some users have had only certain circuit boards burn out during a lightning strike but other components fail. If the security device no longer seems to work and there has recently been a lightning strike, try to find another computer to test the software on — if it works on the other computer, then it is likely that the parallel port on the original computer has been damaged. If it does not work on the new computer, it is likely that the device is damaged and needs to be replaced.

Limited Warranty on Roland Products

Roland warrants that the disk medium upon which the EZ-Engrave product is recorded and any hardware accompanying said disk(s) shall be free from defects in materials and workmanship under normal use and service for a period of ninety (90) days from the date of delivery, as evidenced by a copy of the receipt.

Roland's entire liability and exclusive remedy as to the disk(s) or hardware shall be, at Roland's option, either (a) return of the purchase price or (b) replacement of the disk(s) or hardware which do not meet Roland's Limited Warranty and which are returned to Roland postage pre-paid with a copy of the receipt.

If failure of the disk(s) or hardware has resulted from accident, abuse or misapplication, Roland shall have no responsibility to replace the disk(s) or hardware, the replacement will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer. Other then the above limited warranty, Roland makes no other warranties whatsoever, either legal or conventional, express or implied, with respect to the licensed software and hardware. You are advised to test the licensed software thoroughly before relying on it. You assume the entire risk of using the licensed software. Because of the diversity of conditions and hardware under which the licensed software may be used, no warranty of merchantability or fitness for a particular purpose is given. Some regions do not allow the exclusion of implied warranties, so the above exclusion may not apply.

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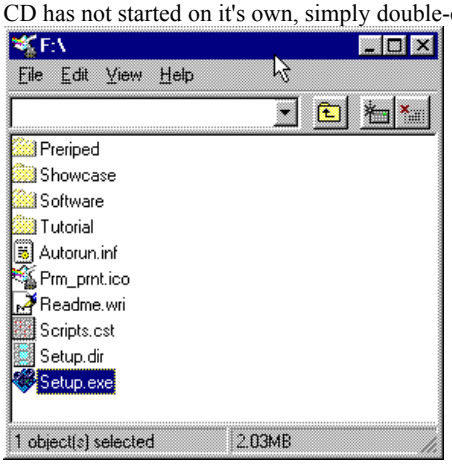
INSTALLING EZ-ENGRAVE

INSTALLING EZ-ENGRAVE - INTRODUCTION

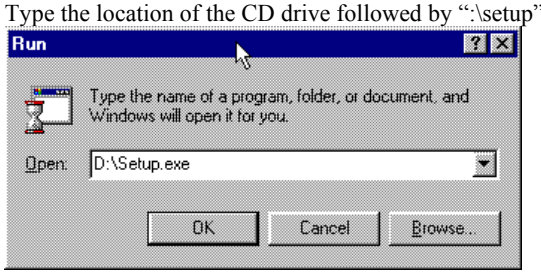
While running Windows ’95 or NT, insert the CD-ROM into the CD drive. All of the modules purchased will be activated during the installation process, unless features are deselected in the “Custom Setup”.

In most instances the CD will commence on it's own after insertion into the CD drive, as we have included a file that the system will detect when the CD is present . This file will not work if the Auto-insertion feature for the CD drive is de-activated. In those instances or if after five to ten seconds the CD has not started on it's own, simply double-click on the setup.exe icon in the CD drive,



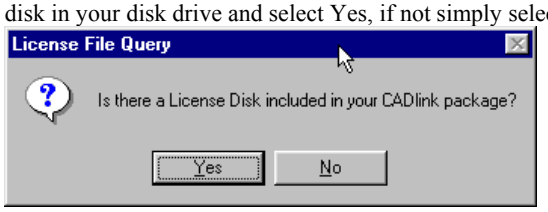
or select Start… Run… from the toolbar of the Windows desktop.

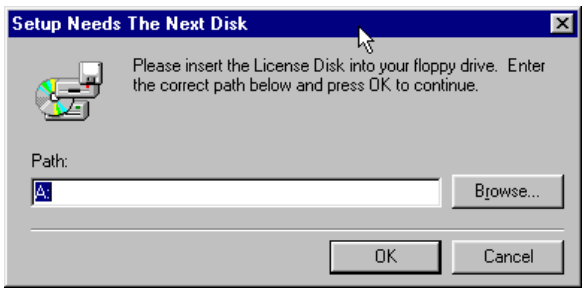
Type the location of the CD drive followed by ":\setup" in the Command Line (i.e., **D:\Setup**).



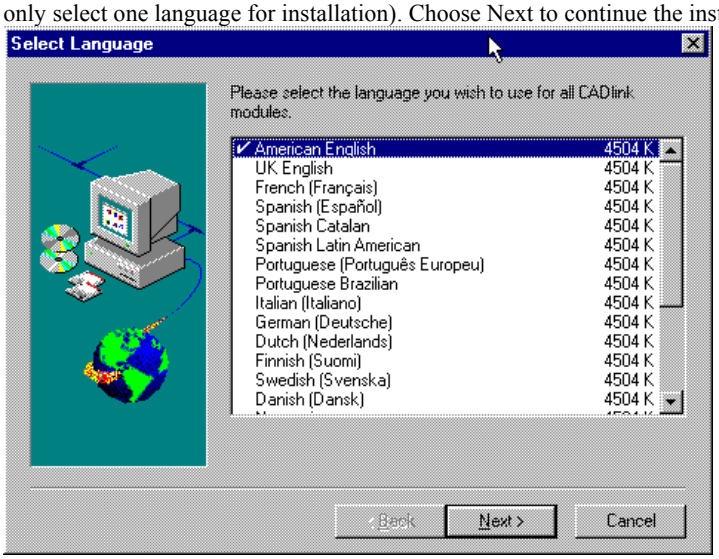
The Installation process will commence.

A dialog box opens asking if you have a license disk included in your Roland package, if so insert the disk in your disk drive and select Yes, if not simply select No. The installation will continue.

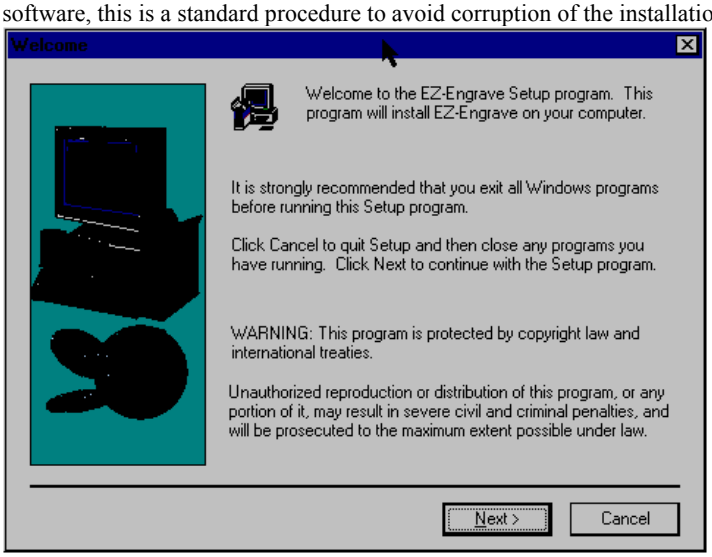




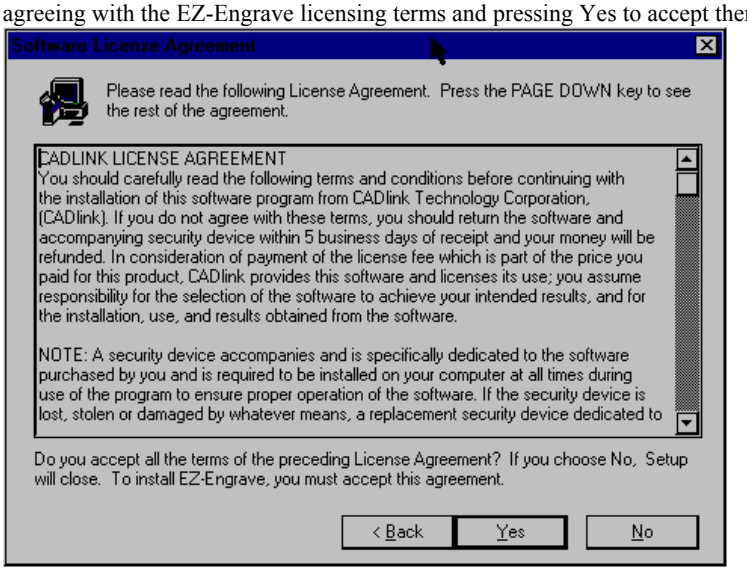
At this point there is a prompt to select the user language, choose your required language (you can only select one language for installation). Choose Next to continue the installation procedure.



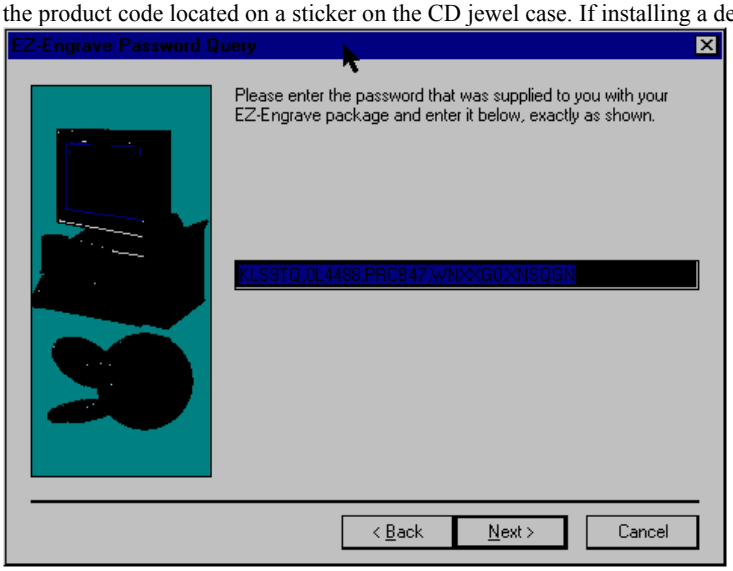
It is strongly recommended that all other applications be closed prior to installing the new EZ-Engrave software, this is a standard procedure to avoid corruption of the installation process.



The licensing agreement will appear on screen, please ensure that it is read thoroughly prior to agreeing with the EZ-Engrave licensing terms and pressing Yes to accept them.

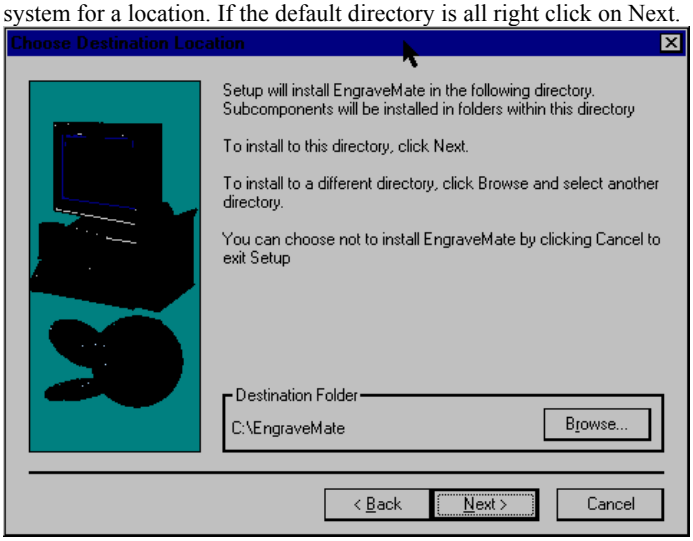


If there was no license disk included, the following screen appears requesting the Product Code. Enter the product code located on a sticker on the CD jewel case. If installing a demonstration press Next.

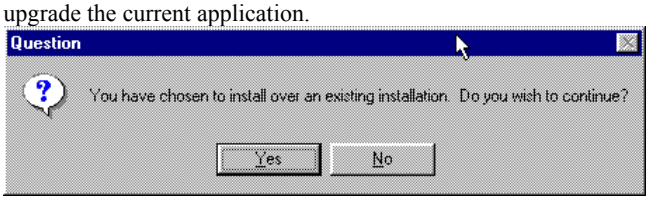


The Software setup phase of the installation procedure begins.

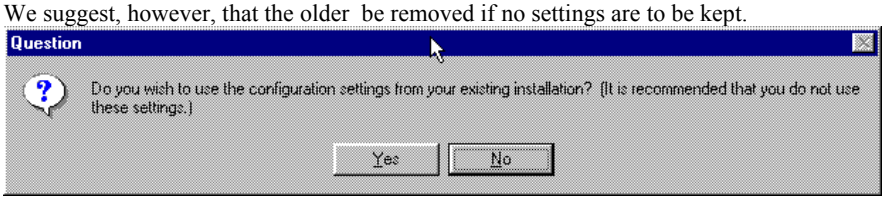
Select the Destination Location for the EZ-Engrave software. Select the Browse button to search the system for a location. If the default directory is all right click on Next.



If upgrading from the previous of EZ-Engrave this installation procedure will find and optionally upgrade the current application.

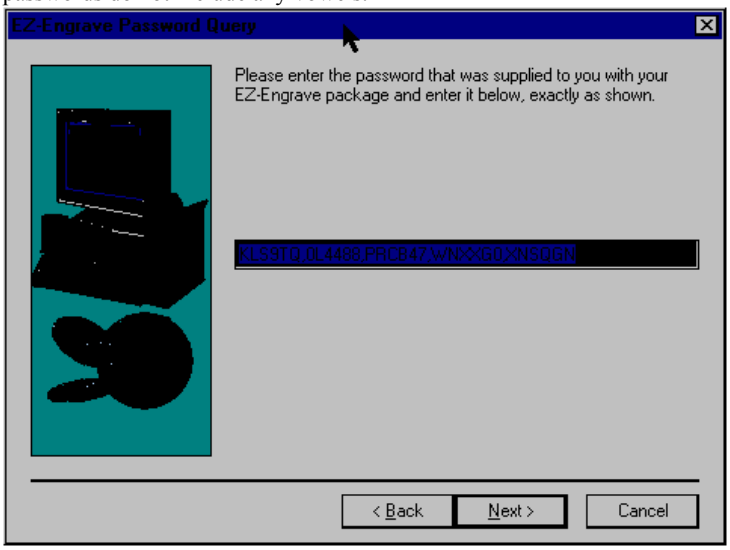


We suggest, however, that the older be removed if no settings are to be kept.



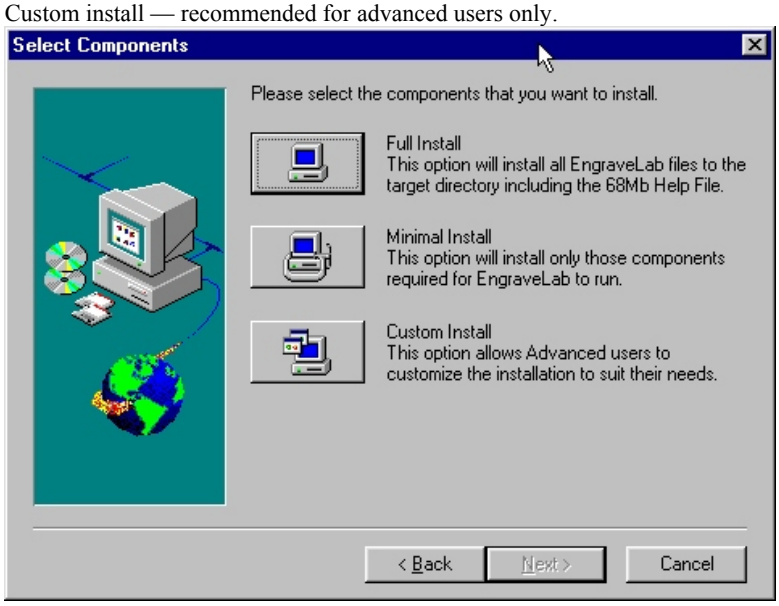
A prompt for password opens (if there was no Password disk included in the package), it is absolutely imperative that the codes be entered exactly as they appear in the documentation supplied by Roland or its authorized re-seller. Otherwise EZ-Engrave will not run properly, if at all. Note that Roland

passwords do not include any vowels.



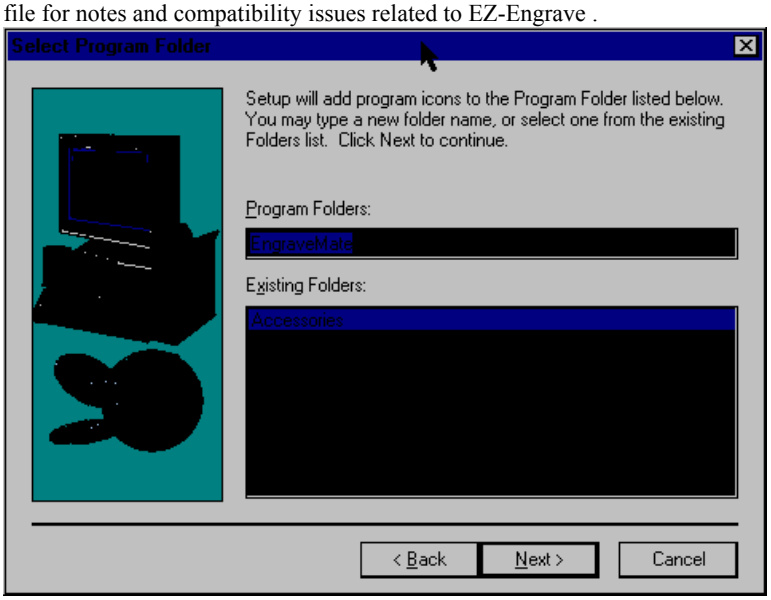
Select among the following:

- Full install — installs all purchased files and modules, including the Help file;
- Minimal install — installs the EZ-Engrave application only; and
- Custom install — recommended for advanced users only.

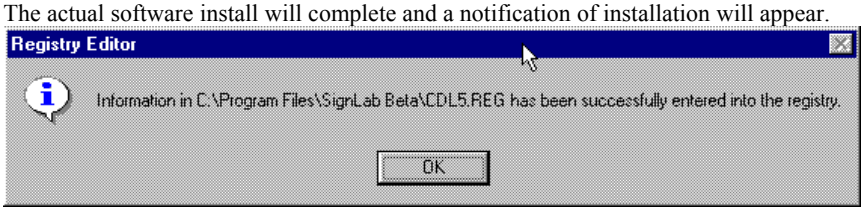


The install asks to create a new program group created called “EZ-Engrave”(the actual name of the group may change due to the modules purchased). This group contains icons for EZ-Engrave, Plot Spooler, a full featured Demo (as well as all other applications the password allows), and the Readme

file for notes and compatibility issues related to EZ-Engrave .



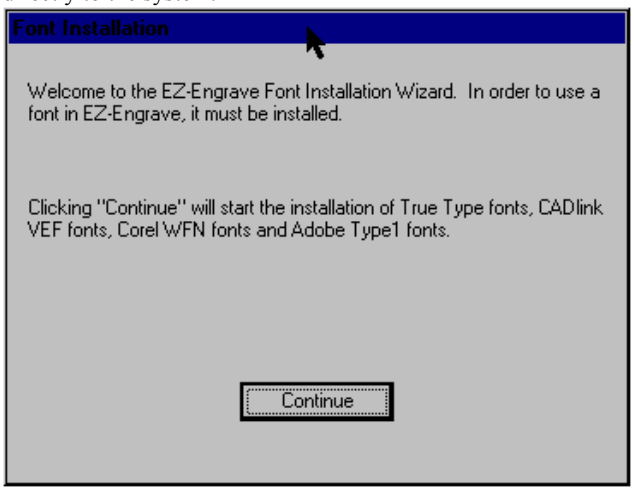
The actual software install will complete and a notification of installation will appear.



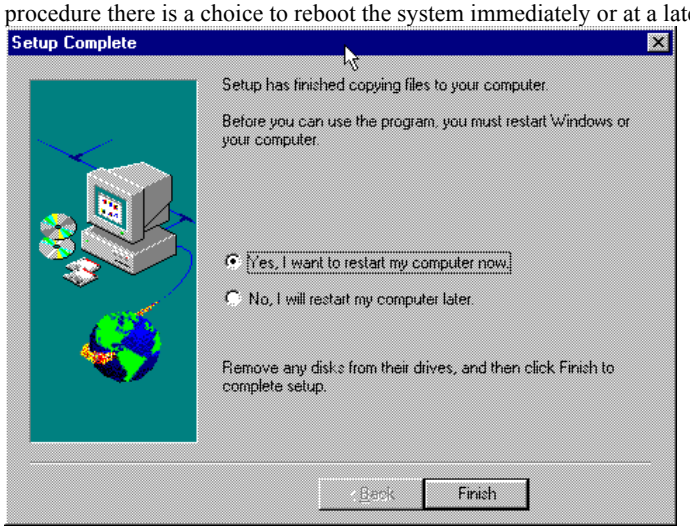
Before finishing the install there is the option to upgrade/install new drivers.

Font Installation

After the drivers installations are completed EZ-Engrave provides the opportunity to install fonts directly to the system.



To install fonts click continue. Fonts can also be installed at a future time using the Install… Fonts… option from the File menu (for more information see the File section of the EZ-Engrave Basics chapter). The installs will commence and notify upon completion. At the conclusion of the installation procedure there is a choice to reboot the system immediately or at a later time.



Windows must be restarted before EZ-Engrave will run.

> ***Note:*** If modules refuse to run, it is likely that the password has been inserted incorrectly during the install program, or the security device in not correctly attached. Under these circumstances, select Install Modules from the File menu and re-install the required password. (See the Install Modules segment of the EZ-Engrave Basics chapter for more details.)

BRING THE PLOTTER ON LINE

Plug the plotter cable into the appropriate port on the system and ensure that the connections are secure. Turn on the plotter and make sure it is on line and ready to accept data from EZ-Engrave.

Set Up Windows to Communicate with The Plotter

If the router is attached to the computer through a serial (COM) port, first configure the serial port in Windows prior to plotting for the first time. To do this, first consult the plotter manual to determine the handshaking protocol required by the plotter. The handshaking will be described as:

> Software or X-On/X-Off > Hardware > None

Also configure the port with regards to the following four variables, check the plotter manual for these setup requirements as well:

> Baud Rate > Word Length or Data Bits > Parity > Stop Bit

Windows NT Port Setup

Communications Port Setup can be accessed via the Start menu...then go to Settings..., then to Control Panel:

- Double-click on the Ports icon to bring up the Ports screen;
- Double-click on the icon representing the port through which the plotter is connected;
- Single-click on the Settings option, the Port Settings screen will appear;
- Set up the Baud and Flow Control as required by the plotter (refer to the plotter manual for these settings);
- Click on the OK button to accept these settings and the OK button in the Ports screen to return to the Control Panel;
- Close the Control Panel to return to the main Windows screen;
- Do not make any adjustments to any ports other than the one through which the plotter is connected, as this may interfere with other devices present in the system;
- Once the appropriate changes are made to the communications port, restart Windows to ensure the changes take effect.

For more information on setting up the ports from within Windows, consult the Windows documentation.

> ***Note:*** Gerber users with the Roland FastBoard should set their handshaking to 9600 baud, no parity, 8 data bits and 1 stop bit, and either "X-ON/X-OFF" or "Hardware" handshaking ("X-ON/X-OFF" preferred).

If using a Roland Super Adapter Card, the proper settings are 9600 baud, no parity, 8 data bits, and 2 stop bits, and no handshaking (i.e., "None").

Windows 95 Port Setup

Communications Port Setup can be accessed via the Start menu...then go to Settings...then to Control Panel:

- Double-click on the System icon to bring up the Hardware settings of the computer;

- Click on the Tab marked Device Manager, the hardware devices in the computer should be available;
- One of the icons will be Ports (COM and LPT), double click on this;
- all the COM and LPT ports available on the computer should be visible, double click on the port to configure;
- Click on the Tab marked Port Settings for this COM port;
- Set up the Baud and Flow Control as required by the plotter (refer to the plotter manual for these settings);
- Click on the OK button to accept these settings and the OK button in the Ports screen to return to the Control Panel;
- Close the Control Panel to return to the main Windows screen;
- Once the appropriate changes are made to the communications port, restart Windows to ensure the changes take effect;

> ***Note:*** Do not make any adjustments to any ports other than the one through which the plotter is connected, as this may interfere with other devices present in the system;

For more information on setting up the ports from within Windows, consult the Windows documentation.

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If using a Roland Super Adapter Card, the proper settings are 9600 baud, no parity, 8 data bits, and 2 stop bits, and no handshaking (i.e., "None").

Plug the plotter cable into the appropriate port on the system and ensure that the connections are secure. Turn on the plotter and make sure it is on line and ready to accept data from EZ-Engrave.

USING EZ-ENGRAVE - THE BASICS

TERMINOLOGY

There are several types terminology for functions used by EZ-Engrave that are common to most Windows applications. They should be reviewed before starting EZ-Engrave.

Click on

Reference to "click on" or "click the mouse on" in the manual entails positioning the on-screen cursor on top of the designated item and pressing and releasing the left mouse button once.

Double-click on

Reference to "double-click on" in the manual entails positioning the on-screen cursor on top of the designated item and pressing and releasing the left mouse button twice in quick succession. Windows interprets this as a single action. The Control Panel option in the File menu allows for adjusting the speed of a double-click to suit particular styles.

Right-click on

Reference to "right-click on" or "right-click the mouse on" in the manual entails positioning the on-screen cursor on top of the designated item and pressing and releasing the right mouse button once.

Drag

Reference to "drag" in the manual means to press the left mouse button, and while continuing to hold the button down, move the mouse. When the desired action is completed, release the button. "Drag" refers to the complete action, this is also referred to click-and-drag on occasion.

Sweep-Select

Sweep-select means simply dragging a box around an object or number of objects. For example:

- Place the cursor or pointer on the screen, with the mouse, at any location.
- Drag the mouse (i.e. depress the left button on the mouse and drag the mouse down or up and to the left or right, while keeping the button depressed).
- A box will begin to form on the screen as the pointer moves.
- When the box completely surrounds the intended object(s), release the mouse button.

The box formed on the screen is called a marquee.

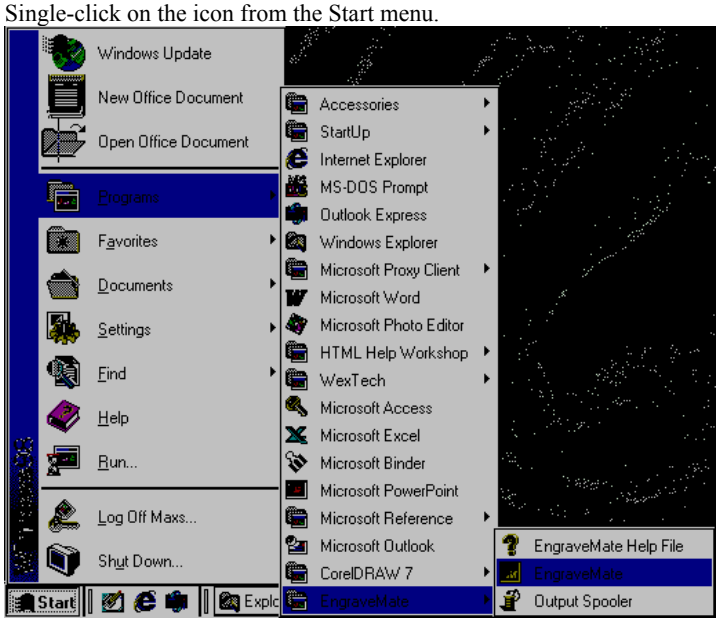
When using some commands, once the marquee has been made, it will snap back to form a smaller box that exactly defines the largest outside dimensions of any objects inside the original marquee.

This smaller box is referred to as a bounding box.

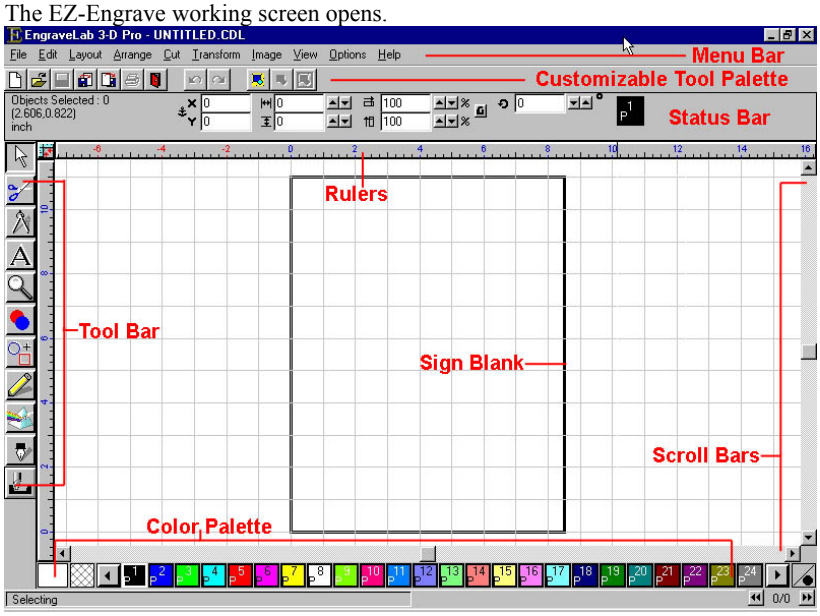
STARTING EZ-ENGRAVE - INTRODUCTION

To start EZ-Engrave first start Windows.

- Start EZ-Engrave by double-clicking on the EZ-Engrave icon in the Program group  ; or
- Single-click on the icon from the Start menu.



The EZ-Engrave working screen opens.



Title Bar

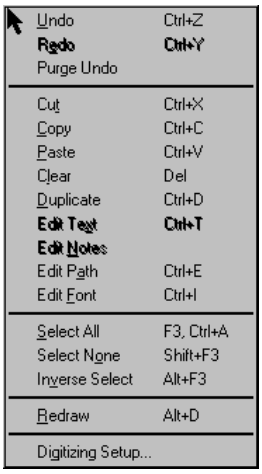
Tells the name of the current application running and the name of the open file. Move the position of the EZ-Engrave window by dragging the Title Bar to a new location.

Menu Bar

The Menu Bar allows access to a number of drop-down menus which contain tools for manipulating files. Each of these menus and their functions are explained in detail later in the manual.

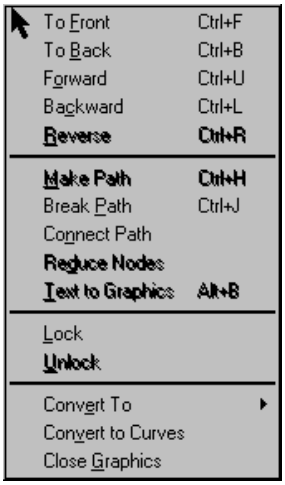
File Menu

Edit Menu

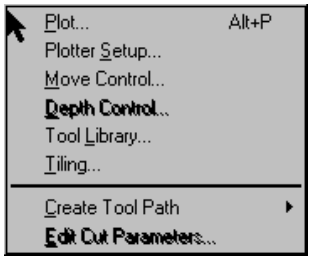


Layout Menu

Arrange Menu



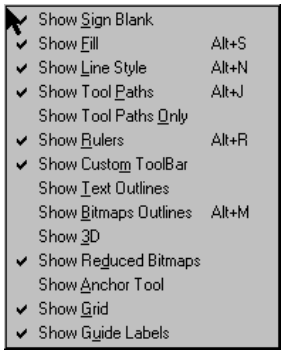
Cut Menu



Transform Menu

Image Menu

View Menu

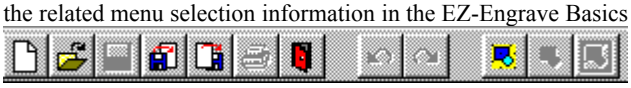


Options Menu

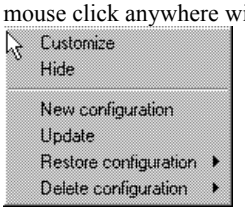
Help Menu

Customizable Toolbar

The Custom Toolbar in the second from the top row, below the Menu Bar provides the option to set up a palette of the most frequently used tools. This Custom Toolbar can be activated via the Show Custom Toolbar option in the View menu. Most of the options available through menu selection are available as icons for use in the Custom Toolbar. For more detailed information on the icons functions refer to the related menu selection information in the EZ-Engrave Basics chapter of this manual.

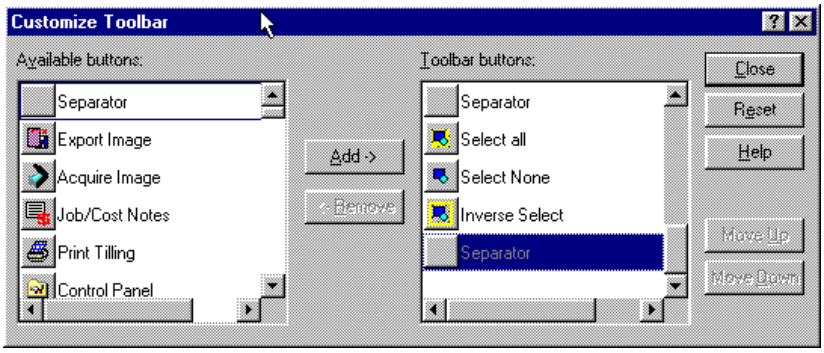


When first running EZ-Engrave the default setting is with the Show Custom Toolbar activated and the default EZ-Engrave Toolbar open. To select a different Toolbar or to edit or create new Toolbars, right mouse click anywhere within the Toolbar itself. The Toolbar pop-up menu opens:



Customize

Selecting the Customize opens the Customize Toolbar dialog box. Within this dialog box icons can be selected to be added or removed from the Current Toolbar.



Available Buttons

The List of Available buttons displays all icons currently available for quick access to various features in EZ-Engrave. Scroll through the list using the scroll bar or the down or up arrows on the keyboard, to select any icon.

Add

Once an icon is selected in the Available buttons list it can be added to the Toolbar buttons by pressing the Add button. The Toolbar on the EZ-Engrave window will refresh itself immediately to display the new icon. Any icon added to the Toolbar buttons list is no longer available from the Available buttons list.

Remove

The Remove button is only available for use if an icon is selected in the Toolbar buttons list. To remove an icon from the list select it and press Remove. Any icon that is removed from the Toolbar buttons list is now available from the Available buttons list.

Toolbar Buttons

The List of Toolbar buttons displays all icons currently included in the Custom Toolbar, for quick access to various features in EZ-Engrave. Scroll through the list using the scroll bar, or the down or up arrows on the keyboard, to select any icon for removal.

Close

When a Customizing session is complete exit and return to EZ-Engrave by pressing the Close button, as all edits to the Custom Toolbar are applied immediately the Close button does not reapply the changes.

Reset

The Reset button returns the Custom Toolbar to the Toolbar settings that were functioning upon entering the Customizing session. This does not necessarily return the Toolbar settings to the Default.

Help

Access the On-line Help document by pressing this button.

Move Up

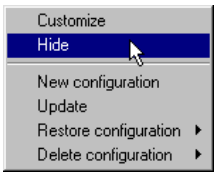
When an icon is selected in the Toolbar buttons list it's priority can be increased in the order by pressing the Move Up button. This moves the button to the left on the Toolbar.

Move Down

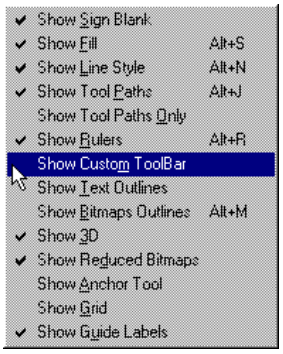
When an icon is selected in the Toolbar buttons list it's priority can be decreased in the order by pressing the Move Down button. This moves the button to the right on the Toolbar.

Hide

Selecting Hide from the pop-up menu causes EZ-Engrave to hide the Custom Toolbar, this increases the size of the editing window.



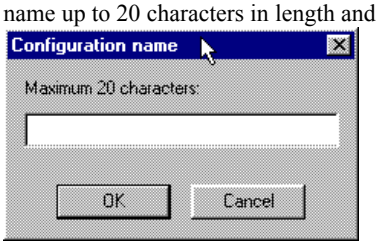
To reactivate the Custom Toolbar select Show Custom Toolbar from the View menu.



New Configuration

The customized tool palettes can be saved as Configurations. For example, if there are a number of projects that require welding features to be available, a palette can be set to contain all the various weld tools, then if a different project requires the special effects features, a palette can be set to include all the relevant special effects tools. These configurations can be called up via the Restore Configuration option.

Selecting the New Configuration option opens the Configuration Name dialog box. Enter a relevant name up to 20 characters in length and press OK.



The New Configuration will now appear in the Restore Configuration fly-out list, and can be edited to suit specific requirements. We recommend creating a new configuration prior to editing it.

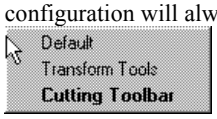
Update

The Update button saves any customizing made to a Toolbar configuration. After a New Configuration is created and edited using the Customize option, select Update to ensure that the Configuration is saved.

Restore Configuration

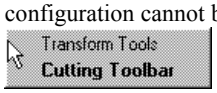
All Configuration will be available from this fly-out menu. If no configurations have been created only the Default setting is available. The default setting can be customized, however any changes to the setting cannot be saved and if Default is selected EZ-Engrave will restore the original Default settings for the Toolbar.

To access a Toolbar configuration select it from the fly-out menu. The EZ-Engrave Default configuration will always be available.



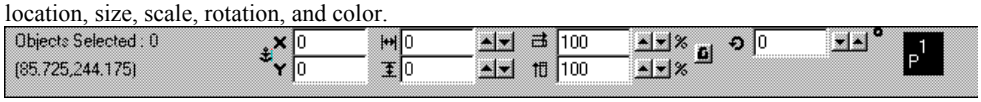
Delete Configuration

Use this option to delete the current Toolbar configuration. The EZ-Engrave Default Toolbar configuration cannot be deleted and will not be available from the fly-out menu.



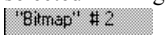
Status Bar

The Status Bar in the bottom section of the top title bar provides the area to view (and edit) object location, size, scale, rotation, and color.



Objects Selected

The first information listed in the Status Bar is the Objects Selected information, if only one object is selected EZ-Engrave will list the type of object as well as the layer upon which it exists.

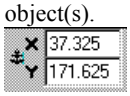


X & Y Coordinates of Mouse/Cursor

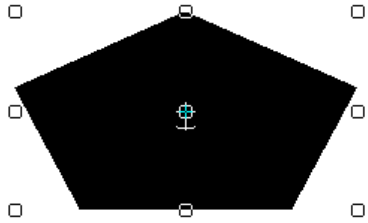
The area immediately below the Objects Selected are displays the X and Y coordinates of the cursor on screen.

Object Coordinates

The X and Y value boxes denoted by the Anchor icon display the X and Y origin for the selected object(s).



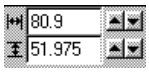
These values can be edited, however once a value is entered the Return/Enter key on the keyboard must be pressed to activate the entry. The Anchor appears on the selected object at the designated Anchor point, and can be moved by clicking and dragging on the Anchor icon.



If the Show Anchor Tool option in the View menu is not activated, the Anchor icon will not appear in front of the Object Coordinates value boxes, and the last selected node on the object becomes the Anchoring point.

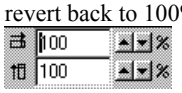
Object Width and Height

The Object Width and Height value boxes display the width and height of the selected object(s). These values can be edited, however once a value is entered the Return/Enter key on the keyboard must be pressed to activate the entry, or use the arrow cursor to increase or decrease the absolute width or height values. If more than one object is selected all objects will be sized when these values are edited.



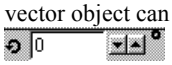
Object Scale

The Object Scale arrows adjust the scale of the selected object(s) in 5% increments. These values can be edited, however once a value is entered the Return/Enter key on the keyboard must be pressed to activate the entry. Once the scale of an object's width or height is complete the values in the scale box revert back to 100%.



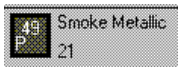
Rotation

The Rotation option rotates the selected object(s) the defined angle of rotation. Use the arrow buttons to rotate the selected object(s) in increments of 15 degrees. These values can be edited, however once a value is entered the Return/Enter key on the keyboard must be pressed to activate the entry. Only vector object can be rotated with this tool.



Vinyl Name and Code

The selected object(s) color layer and vinyl name and code are displayed in this view box. If no object is selected the currently selected color plate is displayed.



Tool Bar

The Menu Bar allows access to a number of drop-down menus which contain tools for manipulating files. Each of these menus and their functions are explained in detail later in the manual.

Select tool

Scanning/Tracing Select tools:

(Available only within Scanning/Tracing Modes)

Click Select tool..... Oval Area tool

Rectangular Area tool ..... Polygon Area tool

Freehand Area tool..... Magic Wand tool

Select By Color tool

Cut tool

Measure tools

Measure tool palette contains five tools: 

Measure tool ..... Dimension tool
Object Dimension tool..... Arrow Draw tool
Notes tool

Text tool

Text tool palette contains three tools: 

Text Compose tool..... On-Screen Text Kerning tool (WYSIWYG)
Text Auto Layout tool

Zoom tools

Zoom tool palette contains five tools: 

Zoom In tool ..... Zoom Out tool
Zoom To Selected tool..... Zoom To Sign Blank tool
Return To Previous View tool

Weld tools

Weld tool palette contains five tools: 

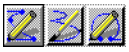
Basic/Color Weld tool ..... AND Weld tool
XOR Weld tool

Shape tools

Shape tool palette contains ten tools:

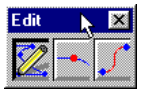
Circle/Ellipse tool..... Stars/Polygon tool
Rectangle tool..... Arrow Draw tool
Weed Border tool..... Decorative Border tool
Registration Mark tool..... Multi-Registration tool
Drill point tool

Graphic Creation tools

Creation tool palette contains three tools: 

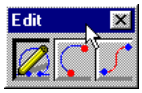
 Node Edit tool  Free Edit tool  Arc Edit tool

When the Node Edit tool is selected a palette opens containing three tools:



 Drawing tool  Node Editing tool  Segment Editing tool

When the Arc Edit tool is selected a palette opens containing three tools:

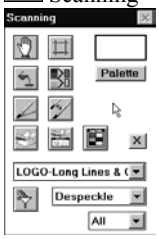


 Drawing tool  Arc/Node Editing tool  Segment Editing tool

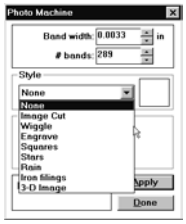
Scanning/Tracing tools

Con tool palette contains Two tools:

 Scanning



 PhotoMachine



Stroke Tool

Stroke Tool

 Line Style tool

Tool Path tools

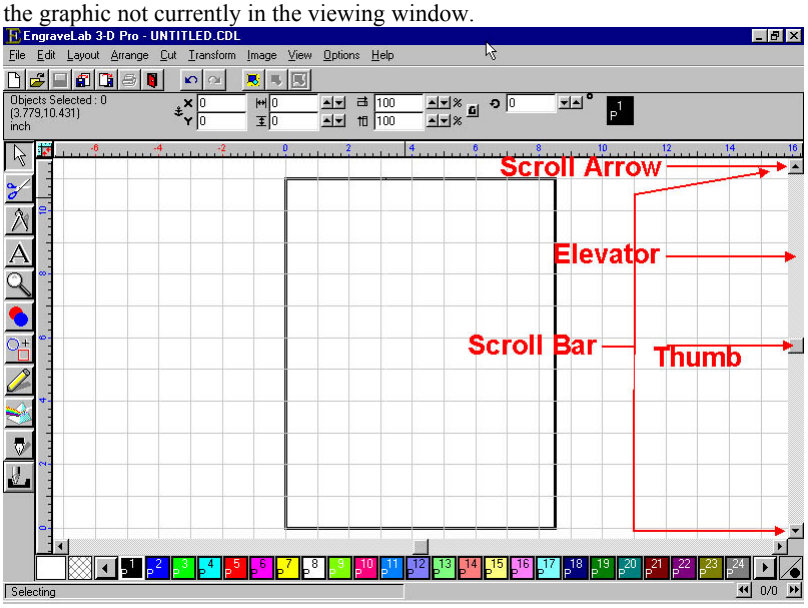
Tool Path tool palette contains six tools:

 Online tool  Male tool  Female tool

 Fill tool

Scrolling and Panning

The scroll bars along the vertical edge and along the bottom of the screen allow for viewing sections of the graphic not currently in the viewing window.



Vertical/Horizontal Scroll Bars

Scroll Bars are used to scroll the current viewing window to view another part of the image on-screen. This is very useful when using a zoomed-in view of the image.

Scroll Bar Arrows

Clicking on a scroll arrow causes the viewing window to move in the direction indicated by the arrow. This will have the appearance of moving the graphic in the opposite direction a short distance. This distance is approximately 1/10 the width or height of the view screen, depending on whether you are moving the view screen vertically or horizontally.

> ***Keyboard Shortcut:*** Press the [Control] key and the appropriate arrow key to move the view screen as a scroll arrow was pressed.

Scroll Bar Elevators

Clicking on a Scroll Elevator causes the viewing window to move in the appropriate direction a large distance. The distance moved is approximately equal to 1/3 the width or height of your view screen, depending on whether you are moving your view vertically or horizontally.

> ***Keyboard Shortcut:*** Press the [Control + Shift] keys, and the appropriate arrow key simultaneously to cause the view screen to behave as if a scroll arrow was pressed.

Scroll Bar Thumb

Dragging a scroll bar thumb within the scroll bar causes the viewing window to move in the direction of the thumb in very large movements. How far the view screen actually moves depends on how far the thumb is moved within the scroll bars. When deciding how far to drag the scroll thumb, be aware that the ends of the scroll bar represent the outer edges of the file on screen.

Editing Window

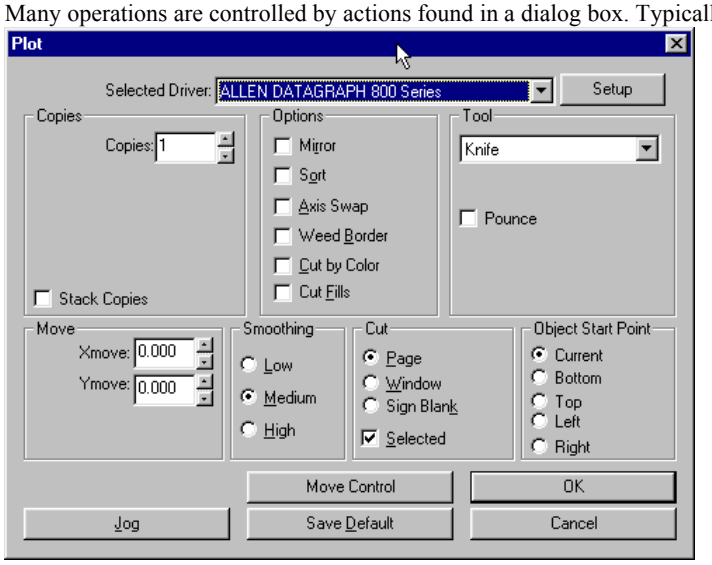
The large blank area of the screen is the Editing window. If Show Sign Blank is activated (see Layout menu), a rectangle representing the sign blank appears on the Editing Window. Any objects in the Editing Window except the Sign Blank can be cut or edited by EZ-Engrave commands.

Color Palette

The Color Palette at the bottom of the screen is used to assign a layer to selected objects. Each color depicts a different layer. For more information see the section on the Color Palette in the EZ-Engrave Basics chapter.

Dialog Boxes

Many operations are controlled by actions found in a dialog box. Typically, they appear as follows:



Radio Buttons ⊙

Radio buttons provide the choice between two or more mutually exclusive choices. Clicking on a radio button selects the associated option, and de-selects any previous related settings.

Checkbox ☒

Check boxes enable/disable a particular command option. When selected, an X or check mark appears in the checkbox.

Numeric Entries 

This feature provides for entering numeric values. These may be entered by dragging the cursor over the existing values to highlight them, and then typing in new values from the keyboard. Where they appear, use the Scroll Arrows also to change the values.

Scroll Arrows

Scroll Arrows are used to change the numeric entries using the mouse. The up arrow increases the displayed value, while the down arrow lowers the value. Clicking on an arrow changes the value one increment at a time. Holding down the mouse button on the Scroll Arrow changes the value rapidly.

Display Boxes

Display boxes are included in some dialog boxes to give a visual representation of the selected command.

OK Button

Selecting this button confirms all choices or changes made to within the dialog box and returns to the previous dialog box, window, or view.

Apply Button

Selecting this button confirms all choices or changes made to within the dialog box and applies the changes while remaining within the dialog box. Use this button specifically when testing to see results of an edit or to verify the results before exiting dialog boxes.

> ***Note:*** Wherever a dialog box is explained in the manual the OK, Apply, and Cancel buttons will not be explained any further, as the use of those features is consistent throughout the software.

Cancel Button

Selecting this button ignores all choices or changes made to within the dialog box and returns to the previous dialog box, window, or view without applying any changes made.

> ***Note:*** If the Apply button is pressed prior to the Cancel button the changes made at the point of the Apply button will be retained while any changes made after pressing Apply will be Canceled.

List Boxes

List boxes provide for selection of an item from a list. Scroll through the list using the scroll arrows and select the desired item by double-clicking on it, or click on the selection and then click on OK.

Short-Cuts

EZ-Engrave is also equipped with a number of short-cuts to some of the more common functions. These short-cuts take three forms — Hot Keys, Function Keys, and Accelerators.

Hot Keys

A Hot Key may be one or more keys pressed at the same time to replace a series of mouse and menu movements. For example, select all of the objects in a drawing by either entering the Edit menu and selecting Select-All, or by pressing the [Control+A] keys at the same time. On the screen (in the menus), this key combination appears as ^A. The [Control] key is abbreviated as ^.

File — Hot Keys

These Hot Keys enable access to the various options of the File Menu.

[Ctrl+N] New File
[Ctrl+O] Open File
[Ctrl+P] Print
[Alt+Q] File Capture
[Ctrl+S] Save File
[Ctrl+V] Save File As
[Ctrl+X] Exit

Edit — Hot Keys

These Hot Keys enable access to the various options of the Edit Menu.

[Alt+Bksp] *or* [Ctrl+Z] Undo
[Ctrl+Bksp] *or* [Ctrl+Y] Redo
[Shift+Del] *or* [Ctrl+X] Cut
[Ctrl+Ins] *or* [Ctrl+C] Copy
[Shift+Ins] *or* [Ctrl+V] Paste
[Del] Clear
[Ctrl+D] Duplicate

[Shift+Drag Center of Selected Object] Duplicate and leave original

[Ctrl+T] Edit Text
[Ctrl+E] Edit Path
[Ctrl+I] Edit Font
[Ctrl+A] *or* [F3] Select All
[Shift+F3] Select None
[Alt+F3] Select Inverse
[Alt+D] Redraw

Layout — Hot Keys

These Hot Keys enable quick access to the options in the Layout Menu.

[Alt+K] Alignment
[Ctrl+K] Align
[Ctrl+G] Group
[Alt+G] Ungroup

Alignment — Hot Keys

These Hot Keys enable quick access to the Alignment selections.

[Alt+1] Left/Vertical ....
[Alt+2] Center/Vertical
[Alt+3] Right/Vertical ..
[Alt+4] Top-Left/Horizontal
[Alt+5] Center/Horizontal
[Alt+6] Bottom-Right/Horizontal
[Alt+7] Center

Arrange — Hot Keys

These Hot Keys enable quick access to the options in the Arrange menu.

[Ctrl+F] To Front
[Ctrl+B] To Back
[Ctrl+U] Forward
[Ctrl+L] Backward
[Ctrl+R] Reverse
[Ctrl+H] Make Path
[Ctrl+J] Break Path
[Alt+B] Text to Graphics

Cut — Hot Key

This Hot Key enables quick access to the Cut menu of EZ-Engrave

[Alt+P] Plot

View — Hot Keys

These Hot Keys enable quick access to the selections in the View menu.

[Alt+S] Show Fill
[Alt+J] Show Tool Paths
[Alt+M] Show Bitmap Outlines
[Alt+N] Show Thick Lines
[Alt+R] Show Rulers

Options — Hot Keys

These Hot Keys enable quick access to the selections in the Options menu.

[Ctrl+W] Snap To Grid
[Alt+W] Use Guides

Generic — Hot Keys

These Hot Keys enable quick access to the various generic selections in EZ-Engrave.

[Arrow key] Nudges 1 pixel
[Shift+Arrow key] Nudges 5 pixels
[Tab] Toggle selection through objects
[Shift+Tab] Reverse direction toggle selection through objects
[Spacebar] Activates Select tool
[Ctrl+Select tool] Move/Draw/Edit/Select with Horizontal/Vertical constraint

EZ-Engrave Functions Keys

These function keys provide access to various functions of EZ-Engrave.

[F1] Help
[F2] Disable all but the target layer
[F3] Select All
[F4] Redraw Screen
[F5] Activate Zoom In Tool
[F6] Zoom Out
[Shift+F6] Zoom Out to Center
[F7] Zoom To Selected Object
[F8] Zoom To Sign Blank
[F9] Zoom In/Out Toggle
[F10] Select the Menu Bar
[F11] Pan to Mouse

Accelerators

Accelerators are single keystrokes that will access a function from within an open menu. For example, press the [S] key on the keyboard while in the File Menu to access the File Save command. These accelerators are menu-specific, and are indicated within the menu an underscore beneath the accelerator (e.g., Save). they are available only when a given menu is open. To open a menu without using the mouse simply press the [Alt] key combined with the underscored letter in the menu title to open the drop-down menu (e.g., [Alt+F] to open the File menu).

EZ-ENGRAVE BASICS

STANDARD FEATURES IN EZ-ENGRAVE

The EZ-Engrave Basics chapter explains all the fundamental features included with most modules and explains the regular router and engraver drivers to control the more common engraving plotters. EZ-Engrave Basics also explains all of the basic tools and menus available for EZ-Engrave. Other feature specific or advanced tools and menus which may require additional modules to become active are explained in detail in later chapters of this manual.

All add-on EZ-Engrave modules need the Foundation module to function, and in most cases these additional modules can be activated by installing their password into EZ-Engrave. Passwords are purchased from EZ-Engrave dealers, and can be installed into EZ-Engrave at any time. Through the various add on modules available, upgrade the EZ-Engrave program, with a quick phone call to a Roland Authorized Dealer, or to Roland directly.

SELECT TOOL

SELECTING OBJECTS WITH THE TOOL

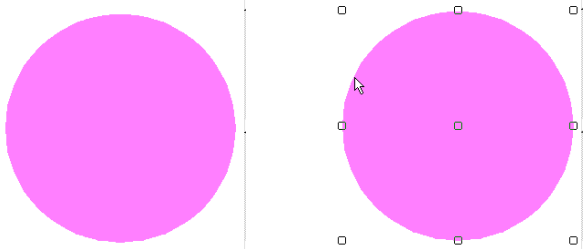
The Select tool is used to select objects that will be operated on by the commands contained in the menus. The Select tool is also used to move and re-size objects.

- Click on the Select tool button to make it active.

Selecting a Single Object

- With the Select tool active, position the Select tool on the object's outline and click.

A group of 9 nubs appear around the selected object and the Status Bar will indicate the dimensions of the selected object and the layer designation of that object.



1. Object un-selected 2. Object selected

Selecting Multiple Objects

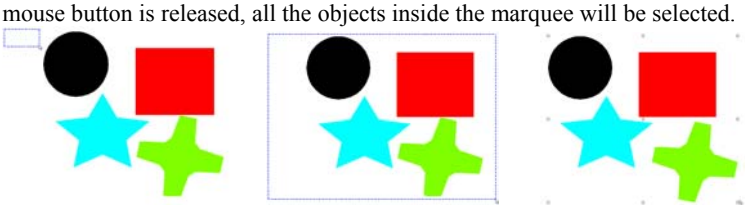
- With the Select tool active, click on several objects while pressing the [Shift] key.

A group of 9 nubs will surround the entire group of selected objects and the Status Bar will indicate the size of the group and the number of objects selected. This group of objects can be operated on as one object with the menu commands. Click on an already selected object while holding down the [Shift] key to de-select that object.

Sweep selecting objects

A sweep select is simply a quick means of selecting several objects by surrounding the objects with a marquee. To sweep select an object, place the Select tool on a blank part of the screen adjacent to the objects to be selected. Select multiple objects by sweep selecting multiple groups with the [Shift] key pressed.

- Click and drag the cursor to form a dotted rectangle that surrounds the objects. When the mouse button is released, all the objects inside the marquee will be selected.



1. Click and Drag cursor around objects. 2. Release cursor after surrounding objects 3. Surrounded objects selected

Index Select of Objects

An indexed selection of objects means scrolling through the objects of a file in the order that they were created.

- Pressing the [Tab] key with the Select tool active selects an object in the graphic, pressing the [Tab] key again selects the next object created, and so on.

Repeated pressing of the [Tab] key will cause the Select tool to index through the graphic selecting each object in turn. The Status Line indicates the size of each object as it is selected.

Reverse Index Select of Objects

- Pressing [Shift+Tab] with the Select tool active reverses the order of objects selected with the [Tab] key.

Shortcut to Activate the Select Tool

- When using another tool from the toolbox, the Select tool can be immediately activated by pressing the [Space] bar. This disables the originally active tool.

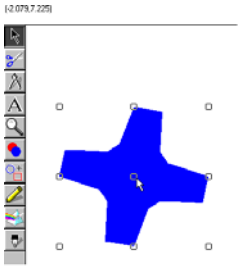
De-select Objects

- Moving the Select tool to a blank area of the screen away from any selected objects and clicking will de-select all selected objects.

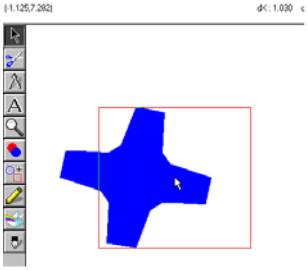
Keyboard Shortcuts:
To Select all objects: [F3] key.
To De-select all objects: [Shift+F3] keys.
To Reverse select objects: [Alt+F3] keys.

MOVING OBJECTS WITH THE SELECT TOOL

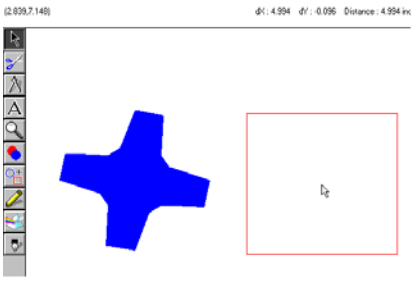
- Move the Select tool onto the outline of the selected object, when the cursor changes to a + sign click and hold the left mouse button down.
- Drag the cursor to a new location while pressing the left mouse button. As this happens, notice that the bounding box representing the overall dimensions of the selected object(s) follows the Select tool.
- When the box is in the desired location, release the mouse button and the object appears inside the box in its new location.



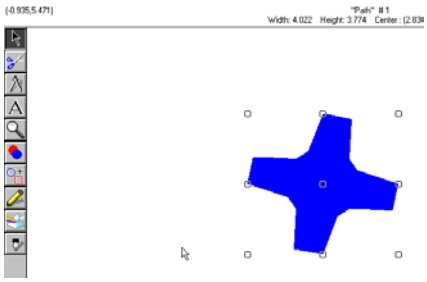
1. Select object



2. Click on the edge of the object and Drag



3. When box is in required location…



4. Release button to place object

- Pressing [Alt+Bkspc] undoes the previous action.

The Status Bar will indicate the distance moved.

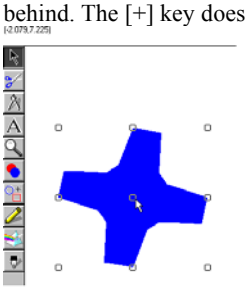
Constrained Move

- Move a selected object with the [Control] key pressed, to constrain the move in the vertical or horizontal direction.
- Pressing [Alt+Bkspc] undoes the previous action.

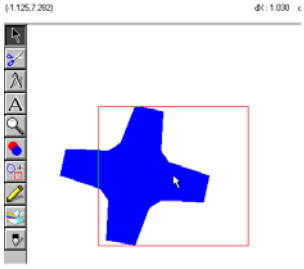
> ***Note:*** If Snap to Grid is selected in the Options dialog box, objects will move in increments equal to the Grid Size set up in the Preferences dialog box.

Leave Original

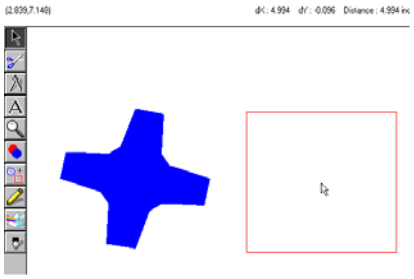
- Press the [+] key while moving the selected objects, and a copy of the original object is left behind. The [+] key does not have to be held down.



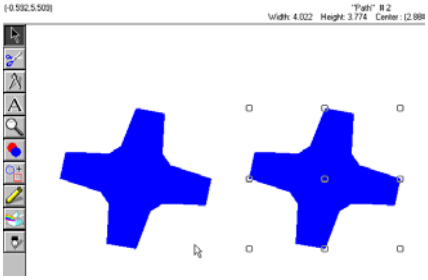
1. Select object



2. Click on nub and Drag



3. When box is in desired location…



4. Release button to place object

Nudge

It's possible to move graphics a pixel at a time on screen. This small movement is called a nudge.

- To nudge a selected object(s) up or down, left or right, press the [Arrow key] on the keyboard in the direction of the arrow.
- Pressing [Shift+Arrow key] nudges the graphic 5 pixels at a time.

RE-SIZING OBJECTS WITH THE SELECT TOOL

The Select tool can also be used to stretch and compress an object in the horizontal or vertical direction and to re-size it proportionally bigger or smaller.

To Stretch / Compress Objects

- Select the object with the Select tool. Move the Select tool pointer over one of the center nubs on either of the four sides until it changes to a bi-directional arrow ⇔, facing the directions that the stretch/compress can follow;
- Drag the nub in the required direction and a dotted bounding box will grow/shrink as the pointer is dragged;
- Release the mouse button when the bounding box is the required size, the object is re-sized.

The Status Bar will show the change in dimension.

Constrained Stretch / Compress Objects

- Pressing the [Control] key while stretching or compressing the object from the middle nubs on either of the four sides will cause the object to re-size in increments of 100% of the original.

The Status Bar indicates the new dimensions.

- Pressing [Alt+Bkspc] keys undoes the previous action.

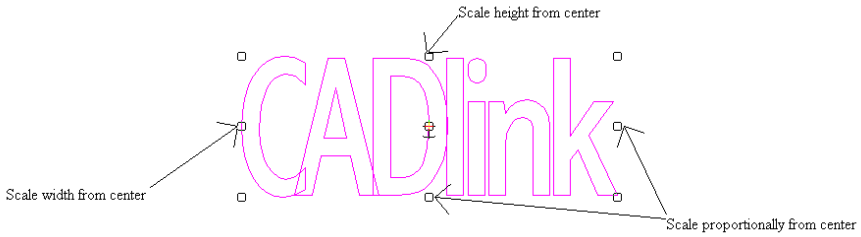
To Scale an Object

- Select the object with the Select tool. Move the pointer over one of the corner nubs until it changes to a bi-directional arrow ⇔;

- Drag the nub to the left or right and a bounding box will increase or decrease proportionally in scale;

- Release the mouse button when the bounding box is the desired size and the re-sized object will be re-drawn.

- Pressing the [Control] key while scaling the object from the corner nubs will cause the object to scale in multiples of 100%.
- Pressing the [Shift] key while dragging the nubs has the effect of scaling from the center of the selected object(s). Dragging the left side nub with the [Shift] key scales the object(s) width from the center, while dragging the top nub with the [Shift] key scales the object(s) height from the center. Dragging either the bottom or the right nub with the [Shift] key scales both the height and width proportionally from the center of the selected object(s).



The Status Bar will indicate the new dimensions.

- Pressing [Alt+Bkspc] keys undoes the previous action.

Note: If Snap to Grid is selected in the Options dialog box, objects will only be able to be re-sized in multiples of the Grid Size established in the Preferences dialog box.

Creating Mirror Images with the Select Tool

A partial reflection image of the selected object can be drawn during re-sizing by moving the selected nub toward and past the corresponding nub on the opposite side of the bounding box.

- A horizontal mirror is made by moving the right side nub to the left, past the left side nub while pressing the [Control] key to constrain the re-size to 100% of the original.

Leave Original

Press the [+] key on the numeric key-pad at any time during the re-sizing of an object, to leave a copy of the original sized object behind. The [+] key does not have to be kept pressed down.

Shortcut to the Layout Menu

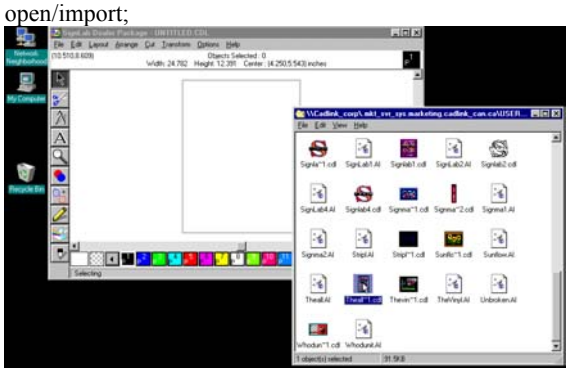
- Move the Select tool over one of the nubs;
- Click on the nub with the right mouse button and the Layout menu appears allowing access to perform one of these commands to the selected object.

Drag and Drop Using the Select Tool

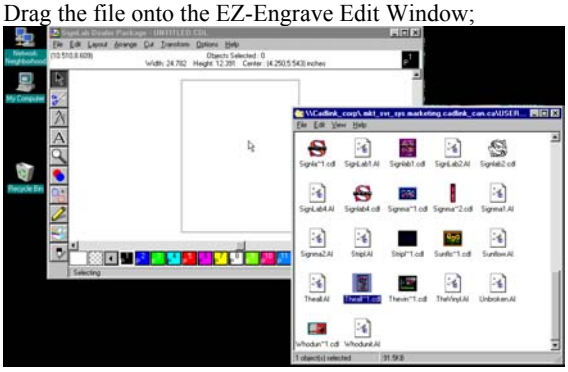
The Drag and Drop capability provides the ability to select a file or object from the File Manager or Program Group and drag the object into an open EZ-Engrave window.

The same principle of Drag and Drop can be used by dragging a file or object onto the EZ-Engrave icon in the Program Group, this opens the EZ-Engrave application with the object or file in the Sign Blank.

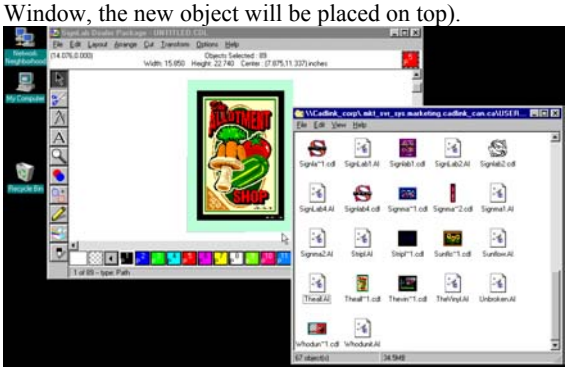
- Within Window's Program Manager or from the Window's '95 desktop click on the file to open/import;



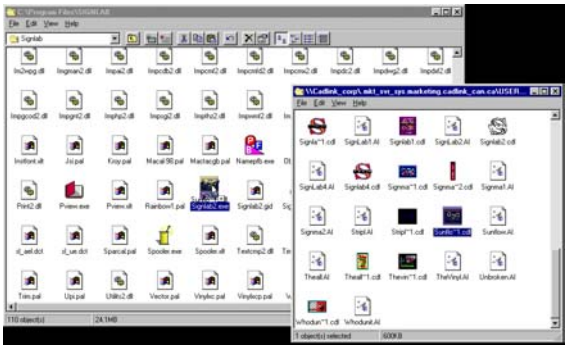
- Drag the file onto the EZ-Engrave Edit Window;



- Release the mouse button, the file will open in EZ-Engrave. The Drag and Drop functions like the Open with Merge selected (i.e., if an object is already in the EZ-Engrave Edit Window, the new object will be placed on top).



Alternatively, if EZ-Engrave is not opened, select the file to open and drag it onto the EZ-Engrave icon.



CUT TOOL

CUT TOOL

The Cut tool is a quick way to plot/rout a graphic without having to proceed through the Cut menu.

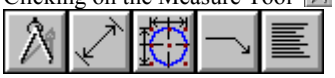
> ***Note*:** Click on the icon and the image currently in the view window will be presented on the screen with vertical and horizontal dotted lines representing 'tiling lines'.

Selection of tiles and subsequent cutting of the tiles is explained in the section describing the Set Tiles section of the Cut menu. The parameters saved previously in the Plotter Set Up option of the Cut menu will be used by default to control the cutting operation. Only one copy of the graphic can be cut from the Cut tool. If more than one copy is required, make the selection in the Plot option of the Cut menu and proceed to cut from this menu.

MEASURE TOOL

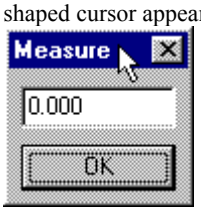
MEASURING AND DIMENSIONS

Clicking on the Measure Tool button produces a tool palette containing five tools:



MEASUREMENT TOOL

The Measure Tool permits selection of two points on a graphic, determine the distance between these two points and then force this distance to any length. Select the Measure Tool and a '+' shaped cursor appears on the screen. The following dialog box also appears:



- Select one point and press the mouse button;
- Drag the mouse to the point which represents the end of the area to be measured and release the mouse button.

The dimension between the two selected points is shown in the dialog box. To make a further change to this dimension, type in the desired dimension and accept by pressing the check mark button. The entire drawing will now change in size such that the distance between the two selected points complies with the value entered into the dimension box. The new dimensions of the entire drawing will appear in the Status Bar.

- Select the X button to close the Measure Tool if no change is to be made to the measured dimension.

The Measure Tool can be constrained to measure distances that are exactly vertical or horizontal. Simply press the [Control] key while dragging the cursor over the area to be measured.

DIMENSION TOOL

The Dimension tool provides the ability to create arrows indicating dimensions on any given plane or angle. The format of the final dimension arrows is governed by the settings set in the Dimension Setup dialog box, located under the Options menu. To use the Dimension Tool:

- Click on the Measure tool button;
- Click on the Dimension tool in the tool palette;
- Click on the start point for the measurement;
- While holding down the left mouse button, drag the on-screen cursor to the position which represents the end of the required dimension;

- Upon release of the mouse button, drag the dimensioning arrows in the direction required (i.e., the direction the arrows will lie, typically away from the object being measured);
- Click the mouse button again when satisfied with the results.

OBJECT DIMENSION TOOL 

The Object Dimension  tool is designed to generate Vertical and horizontal measurements based on a specific object or group of objects. To use this tool, first select the object(s) required to draw dimensioning information. To use the Object Dimension Tool:

- Select the object(s);
- Click on the Measure  tool button;
- Click on the Object Dimension  tool in the tool palette;
- Click on the nub on the side or top of the selected object(s) required to draw dimensioning information.

> ***Note***: The cursor has turned into a cross hair

- Drag the nub in the appropriate direction.

The dimensioning arrows will appear on screen as formatted in the Dimension Setup dialog box.

ARROW DRAW TOOL 

The Arrow Draw  tool provides the ability to draw arrows and to apply notes to objects. To use the Arrow Draw Tool:

- Click on the Measure  tool button;
- Click on the Arrow Draw  tool in the tool palette;
- Click on screen at the point to place the arrow head;
- Drag the first segment of the arrow to the point where it should end, and release the mouse button;
- Drag the second segment of the arrow to its conclusion;
- Click on the end point of the arrow.

This will produces the Edit Notes dialog box. The operation of this box is discussed in the next section, The Notes Tool.

NOTES TOOL 

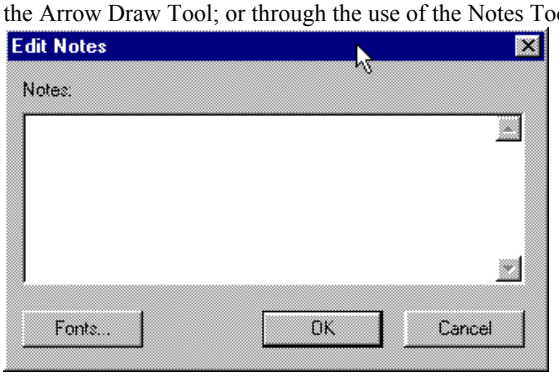
The Notes  tool provides the ability to add descriptive notes to files. To operate the Notes Tool:

- Click on the Measure  tool button;
- Click on the Notes  tool in the tool palette;
- Click on screen at the point to place the notes.

This produces the Edit Notes dialog box.

Edit Notes Dialog Box

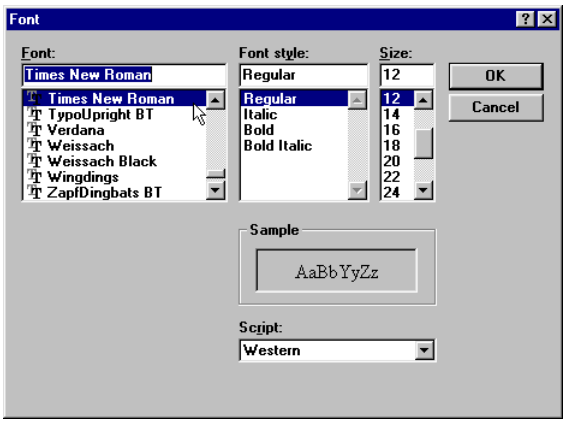
This box can be accessed from within EZ-Engrave in three different ways: by clicking on a note and selecting Edit Notes from the Edit menu (or by double-clicking in the note); by drawing an arrow with the Arrow Draw Tool; or through the use of the Notes Tool.



When this dialog box appears, begin to enter the text for the note immediately using the settings previously established for notes, or choose to change the font information for the notes.

Changing Fonts: The Font Button

Pressing the **Fonts** button produces the Font dialog box.



This is a standard Windows dialog box, choose a font, font style (i.e., regular, bold, italic, or bold-italic) and size of font for the notes. Because it is a Windows dialog box, only those fonts registered in Windows will be available (i.e., True Type and postscript).

TEXT TOOL

TEXT TOOL - INTRODUCTION

The tool is used to create text messages from software fonts supplied by EZ-Engrave and other sources, such as a True Type Font Library. Full control over kerning, scaling, line width, font, line spacing, line positioning, and slant make this tool an effortless and powerful method to produce the most complex text passages.

Activating Text Compose Modules

To activate the Text Composition module, enter the password that activates the Text Compose tool The correct password for the Text Composition module should have been received at the time the module was purchased from Roland or a EZ-Engrave re-seller.

The password can be entered into EZ-Engrave during initial installation of the software, or, if the module was purchased subsequent to the initial installation of the EZ-Engrave software, enter the new password using the Install Modules option from the File menu.

Installing the EZ-Engrave Fonts

With the initial purchase of EZ-Engrave, some fonts may have already been installed during the installation procedure. However, if the modules with fonts were purchased subsequent to the initial purchase, perform the Install Fonts procedure available from the File menu (detailed in the section titled Install Fonts in the Foundation Chapter of this manual).

Text Compose Options

With the release of EZ-Engrave 5.0 there are two distinct ways to work with Text Composition:

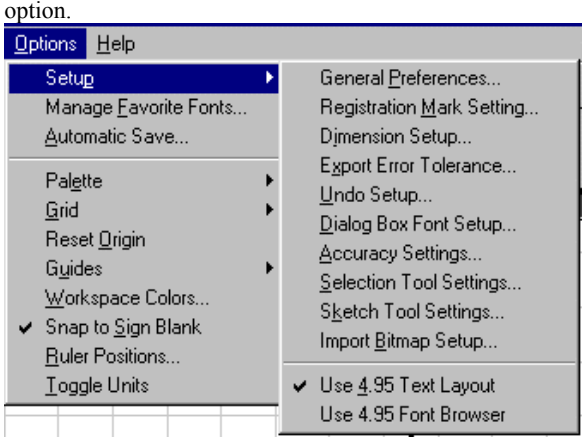
- The new on-screen text editing method, available only with versions 5.0 and newer, as described in the proceeding pages; and
- The 4.95 text composition method using the Compose / Edit Text dialog box, as described at the end of this chapter.

When using Text Compose, the default setting is the new on-screen text editing method, set with the installation of versions 5.0 or newer.

To activate the 4.95 Text Compose using the Compose / Edit Text dialog box:

- Open Setup fly-out menu available from the Options menu;

- Click on the Use 4.95 Text Layout option to activate it, a check mark appears next to the option.



- To de-activate the Use 4.95 Text Layout re-select the option from the Setup fly-out menu.

Composing Text Signage

To start composing text:

- Click on the Text Compose tool in the Toolbox.
- Click on the Text tool in the fly-out menu that appears.
- Move the cursor to the position on screen where the text message is to appear and click the mouse.

Compressing or expanding the composed text:

- Move the cursor to the position on the screen where the text message is to appear and then drag the cursor to a new location to the right.

The distance moved will determine the width of the text string. The text string will be compressed or expanded to fit within this space

When the mouse button is released the Text tool bar appears at the top of the view screen:

Keyboard Controls In Text Compose

Any text message placed on a Engraving is composed from the keyboard. When using the keyboard, the following keystrokes should be remembered as having special functions:

[BkSpc] Deletes character immediately to the left of the cursor

[Del] Deletes character immediately to the right of the cursor.

[Home] Sends cursor to first character in a text line.

[End] Sends cursor to last character in a text line.

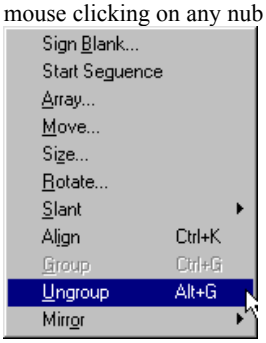
[Enter] Same as Carriage Return function on all standard word-processing applications, and indexes cursor to next line.

[Shift] Pressing [Shift] key while pressing another key accesses upper case character for the key or the top character of the two characters shown on the key pad.

[→] Pressing the arrow keys moves the cursor in the direction of the arrow whenever the cursor is inside the text view box or one of the pull-down menus.

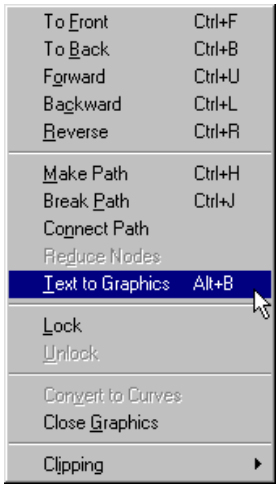
Characteristics Of EZ-Engrave Text

- Any text composed and viewed on screen in one composing session (i.e., one mouse click with the Text tool) will be designated as a paragraph of text;
- Each paragraph of text composed with the Text tool will be treated as a single entity. Each line of text may contain as many as 300 characters;
- Each paragraph of text may contain as many as 20 lines of text;
- Text can be edited after it has been transformed by any function which does not distort the shape of the characters in a paragraph, this includes Fit Text to Arc and Fit Text to Path;
- To select individual lines or characters within a paragraph, when implementing changes without affecting other lines or characters in the paragraph, first ungroup the paragraph text into individual lines of text using the Ungroup option in the Layout menu, accessible by right mouse clicking on any nub of the Text group.



- To separate the characters in a line from each other, ungroup the line. Any operation can then be performed on the individual character without affecting the other characters in the string.
- Once the paragraph or line is ungrouped, the characters become individual objects. Even when re-grouped these characters will be seen as a group of objects, and not as a paragraph. Once a paragraph is broken up, it is broken permanently.
- To transform a paragraph of text using any tool that physically changes the shape of the letters, the selected text will be converted into graphic format using the Text to Graphics option in the Arrange menu, before performing the transformation (EZ-Engrave does this automatically, when required). Once text has been converted to graphics, it cannot be

returned to a text state.



Text Entry

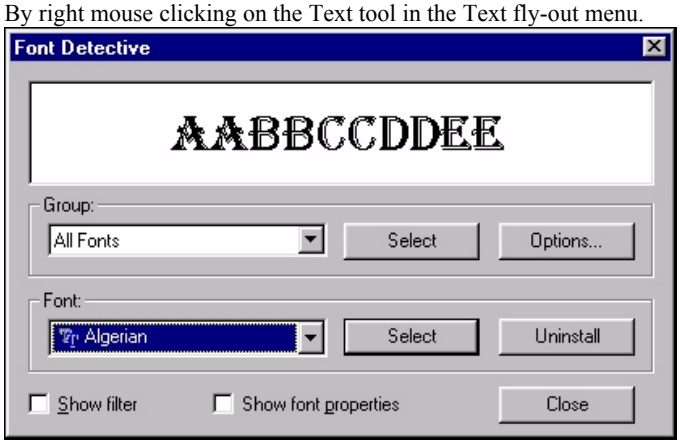
The Text Compose tools now sit directly on the view screen, and the Text is entered and edited directly on screen. Text may be entered from the keyboard, or it may be pasted from the Windows clipboard.

Text entered into a Text paragraph remains ASCII text, and can be exchanged with the Clipboard. An example of this facility is seen in the Text Compose Tutorial included with the EZ-Engrave package as a separate booklet.

FONT DETECTIVE

The Font Detective dialog box is available in three ways:

- By selecting the Font Detective button in the Text tool bar when working in Text Compose;
- By selecting the Add button in the Manage Favorite Fonts dialog box, available from the Options menu;
- By right mouse clicking on the Text tool in the Text fly-out menu.

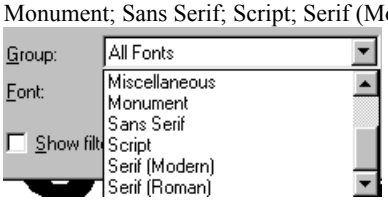


Font Display Box

This box displays a section of the font selected.

Group

This drop-down menu list displays the group of fonts selected as they are divided on the EZ-Engrave Font CD. The groups to select from are: All Fonts; East European; Fancy; Line Font; Miscellaneous; Monument; Sans Serif; Script; Serif (Modern); and Serif (Roman).



Group Options

The Group Options fly-out menu is accessed by clicking on the Options button beside the Group display box.

Add Group

Selecting the Add Group button opens the Add Group dialog box.

Group Name

Insert the name of the new group in the Group Name box.

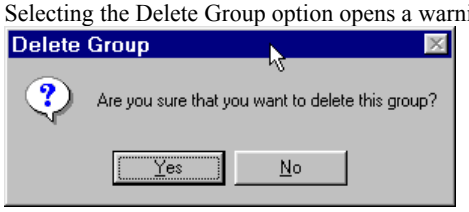
Create New Group

The Create New Group section offers three choices for adding a new group, activate one of the radio buttons to select a new group:

- which is initially empty;
- with the current filter selection;
- with the contents of, below this option is a drop-down list that includes all of the groups currently available to choose from.

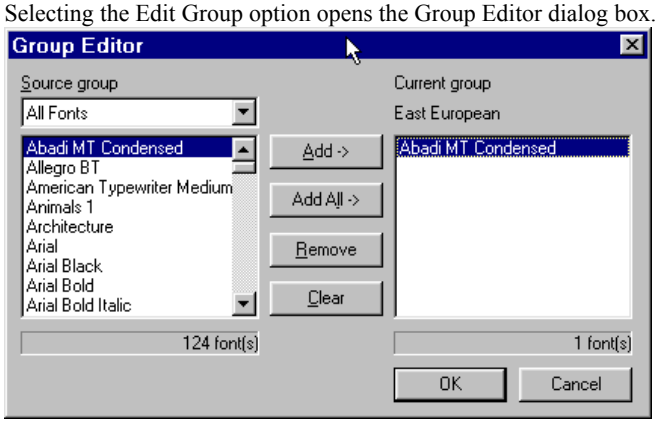
Delete Group

Selecting the Delete Group option opens a warning box prior to deleting the currently selected group.



Edit Group

Selecting the Edit Group option opens the Group Editor dialog box.



Source Group

The Source Group is a drop-down list that gives access to all groups currently available, select a group from the list by clicking on it.

Source Group Font List Box

The Source Group font list box displays all the fonts within the selected group, any of the fonts in the list box can be selected for addition into the Current Group. As in most windows applications, the fonts can be [Shift] selected to select the entire list between the first and last selected, or the fonts can be [Ctrl] selected to select multiple fonts out of sequence.

Add

Pressing the Add button will add any selected font(s) from the Source Group to the Current Group.

Add All

Pressing the Add All button will add all fonts in the Source Group into the Current Group.

Remove

The Remove button is activated only if fonts in the Current Group are selected, pressing the Remove button will delete the font from the Current Group. As in most windows applications, the fonts can be [Shift] selected to select the entire list between the first and last selected, or the fonts can be [Ctrl] selected to select multiple fonts out of sequence.

Clear

The Clear button removes all fonts from the Current Group.

Current Group

The Current Group is an information box stating the Font Group currently selected for editing.

Current Group Font List Box

The Current Group font list box lists all fonts in the Current Group, including those originally in the Group as well as those added during the editing session.

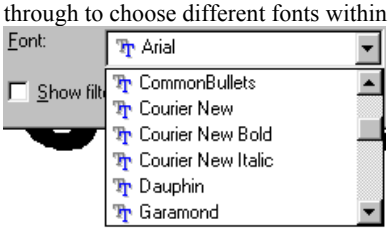
Select Group

The Select Group button will add the entire group of fonts to the source of origin as follows:

- If Font Detective is accessed from the Font Detective button in the Text Compose tool bar, the entire group of fonts is added to the font list available for the currently open file;
- If Font Detective is selected from Add button in the Manage Favorite Fonts dialog box, the entire group of fonts is added to the Favorite Font list;
- If Font Detective is selected by right mouse clicking the Text tool in the Text fly-out menu the Select Group button is not available.

Font

The Font box displays the selected font and opens into a drop-down menu list that can be scrolled through to choose different fonts within the selected Group.



Uninstall Font

The Uninstall Font option removes the currently selected font from the font list. There will be no warning notification and the font will not appear in the Group font list for any future editing sessions unless it is re-added.

> ***Note:*** If the font has already been loaded into the EZ-Engrave file it will remain available for the file.

Select Font

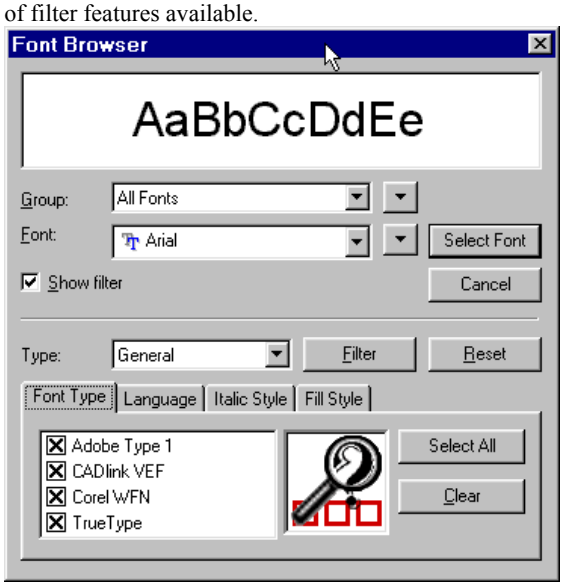
The Select Font button applies the font to the source of origin as follows:

- If Font Detective is accessed from the Font Detective button in the Text Compose tool bar, the font is added to the font list available for the currently open file;
- If Font Detective is selected from Add button in the Manage Favorite Fonts dialog box, the font is added to the Favorite Font list;

- If Font Detective is selected by right mouse clicking the Text tool in the Text fly-out menu the extended character set for the selected font is placed in the view screen.

Show Filter

Activating the Show Filter option opens the articulated Font Detective dialog box to display the full set of filter features available.



Type

Click on the down arrow to open the drop-down selection menu. Select from five different types of fonts: General; Text and Display; Hand Written; Decorative; and Pictorial.

Within each of these types there are various styles of filters to mix and match to build, edit or modify font groups, these filters are accessed through the Tabs.

Font Type

The Font Type Tab list displays the format of font selected, there are four format types available: Adobe Type 1 (PFB), Roland VEF, Corel WFN, and True Type (TTY).

Font Language

The Language Tab option displays the language of font whether Arabic, Braille, Chinese, Cyrillic, Greek, Hebrew, Latin, Japanese, or symbol.

Italic Style

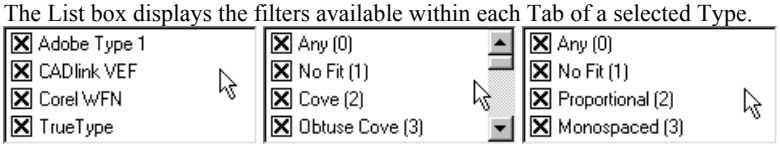
The Italic Tab option offers three styles of Italics: No Italic (no slant); Regular Italic (forward slant); and Reverse Italic (backward slant).

Fill Style

The Fill Style Tab option lists the types of fill available for the different font groups: solid font (normal); line font (routing and engraving); or bitmap font (digital printing).

List Box

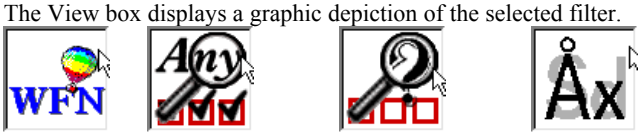
The List box displays the filters available within each Tab of a selected Type.



General - Font Type *Text and Display - Serif Style* *Hand Written - Spacing*

Viewer

The View box displays a graphic depiction of the selected filter.



Font Type - WFN *Any Filter* *No Filter* *X-Height - Constant/Standard*

Select All

The Select All button selects all filters available in the current list box.

Clear

The Clear button clears all selected filters available in the current list box.

Filter

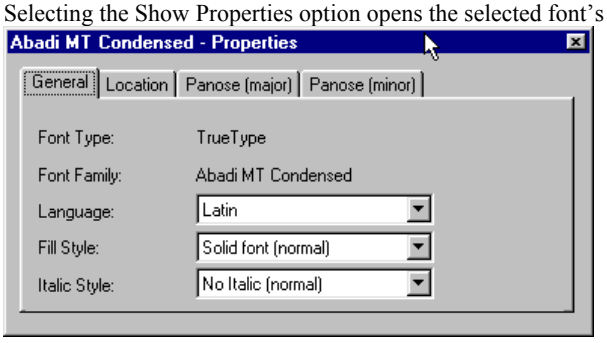
The Filter button applies the selected filter parameters to the current Group.

Reset

The Reset button resets the filter parameters to the default setting.

Show Properties

Selecting the Show Properties option opens the selected font's Properties dialog box.

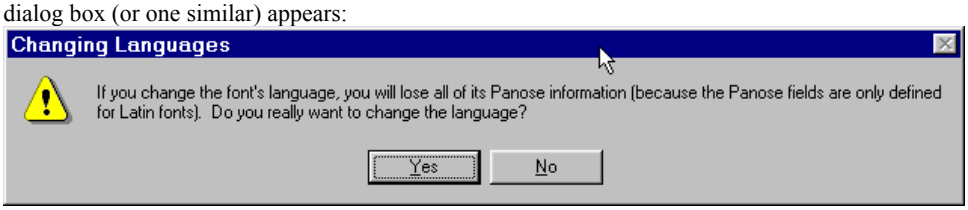


Within the Properties dialog box there are four tabs to select from:

- General
- Location
- Panose (major)
- Panose (minor)

General

The General tab provides information regarding the Font Type, Font Family, Language, Fill Style, and Italic Style. The Font Type and Font Family sections cannot be edited. Care should be taken when editing any of the other options within the font's Properties dialog box. Often if an edit is made, that can drastically effect the selected font or other fonts within the same family or type, the following dialog box (or one similar) appears:



For detailed information regarding fonts, font types, and font families, access the font web site hosted by Hewlett-Packard at http://www.fonts.com. This web site is a resource setup by Hewlett-Packard to help customers locate and download a variety of font technologies including font files and font information. There is also a manual published by Hewlett-Packard, the HP Grey Book. The Grey Book is a fountain of font knowledge and can be extremely useful for those working with fonts extensively.

Font Type

The Font Type can be one of four different varieties of font: Adobe Type 1 (PFB), Roland VEF, Corel WFN, or True Type (TTY).

Font Family

The Font Family is determined by the name of the font. For example, Arial Bold Italic font is a member of the Arial font family.

Language

No Language .....This designates fonts that are not associated with any language.

Arabic	There is currently no Panose classification system for this language.
Braille	There is currently no Panose classification system for this language.
Chinese	There is currently no Panose classification system for this language.
Cyrillic	There is currently no Panose classification system for this language.
Greek	There is currently no Panose classification system for this language.
Hebrew	There is currently no Panose classification system for this language.
Japanese	There is currently no Panose classification system for this language.
Latin	Text and Display, Handwritten, Decorative, and Pictorial. See description on following pages for more information.

Fill Style

Solid Font .....Solid fonts are fonts where all glyph contours are closed and filled.

Bitmap Font ..... A Bitmap font is one where there are areas of color rather than contours, defining the glyph shape.

Line Font ..... Line fonts are fonts where the glyph contours are open, often used in routing and engraving.

Italic Style

No Italic (normal) ..... Normal style fonts have no more than a 15º slant in either a forward or backward direction.

Regular Italic ..... Regular Italic fonts are slanted a minimum of 15º degrees forward.

Reverse Italic ..... Reverse Italic fonts are slanted a minimum of 15º degrees backward.

Location

The Location tab provides the following information:

Path

Path displays the directory structure leading to where the font resides on the system. Fonts that are installed into Windows directly will be listed as 'Resident in Windows'. Fonts resident on a CD will list the path starting with the drive name of the CD-Reader (i.e., D:\European\…).

Media Type

The Media Type defines the source media, if the fonts are resident on a CD this will read CD-ROM, if the fonts are resident on a Removable Disk the Media Type will read Removable Disk, etc…

Volume Name

The Volume Name will display the title of the specific object in the drive. For example the Roland Professional Engraving Fonts CD might read ProEngrave.

Panose (major)

Panose is a typeface matching system used to classify and/or match type styles. It was originally developed by Benjamin Bauermeister and is licensed to Hewlett-Packard Corporation.

The Panose (major) attributes are those attributes that best describe the general appearance of a font.

Family Kind

All information relayed via the Panose (major) and Panose (minor) tabs is dependent upon the Family Kind. Within the Panose (major) tab depending upon which Family Kind selected certain of the following information is available and editable:

Text and Display

The Text and Display classification is applied to fonts which are clearly derived from the Latin alphabet and which are produced primarily for legibility rather than for decorative purposes. The letterforms of Latin text and display fonts have, whether serif or sans serif, a conventional appearance.

Serif Style ..... This digit describes the appearance of the serifs used in a font design and groups them into one of fourteen general categories. Serif and sans serif faces are classified within this digit, though less description is given to the stem terminators of sans serif styles.

Weight The Weight digit classifies the appearance of a fonts' stroke thickness in relation to its height. This is expressed as a comparison of the measurements taken on the uppercase E glyph and the Upper H used before.

Proportion ..... The proportion of a font in the PANOSE Typeface Matching System is defined in greater detail than simply an indication of general glyph shape aspect ratio such as extended and condensed. It also compares the relative widths of a few standard characters that are often varied by type designers to give their typeface a certain historical or legible appearance.

Contrast The Contrast digit describes the ratio between the thickest point on the stroke of the letter O and the narrowest point on the letter O. This ratio is called the ConRat and involves two relatively straight forward measurements. This measurement should not be confused with the sixth PANOSE digit, Stroke Variation.

Handwritten

Generally speaking, handwritten fonts are those which look like script and which do not have corresponding book faces.

Tool Kind ..... Kind of implement predominately used to create character forms. Includes flat nib, pressure point, wild brush etc.

Weight The Weight digit classifies the appearance of a font's stroke thickness in relation to its height. This is expressed as a ratio taken from two measurements on the uppercase E glyph.

Spacing This digit allows monospaced and proportional fonts to be distinguished.

Aspect Ratio ..... This is the ratio between the width and the height of the face measured using the Upper O .

Decorative

Latin Decorative faces are those that are designed more for impact than readability. Usually Decorative faces are used singly or in small groups, for special purposes. Small cap fonts are also included in this group because they have become unusual enough to be considered special purpose fonts.

Class The class is the general look and feel of the face. Faces should be classed with as low a digit as is reasonable.

Weight The Weight digit classifies the appearance of a fonts' stroke thickness in relation to its height. This is expressed as a ratio taken from two measurements on the uppercase E glyph.

Aspect This is the ratio between the width and the height of the face.

Contrast The Contrast digit describes the ratio between the thickest point on the letter O and the narrowest point on the letter O.

Pictorial

Latin Pictorial is where all the nonalphabetic fonts reside. These are fonts that can be loaded like normal text fonts, but do not contain readable characters. Dingbats and specialized symbol fonts are two examples.

Kind The kind classification determines the general nature of the symbol set. For example a Montage classification would mean that there are a wide variety of themes described within the character set.

Weight The Weight digit is required by the PANOSE engine, but is not meaningful for symbol faces, so it is always set to 1.

Spacing This digit allows monospaced and proportional symbols to be distinguished.

Aspect Ratio and Contrast ..... The Aspect Ratio & Composite digits is required by the PANOSE engine, but are not meaningful for symbol faces, so they are combined into this digit and always set to 1.

Panose (minor)

The Panose (minor) attributes are those attributes that best describe the more specific details of the appearance of a font.

Within the Panose (minor) tab depending upon which Family Kind is selected certain of the following information is available and editable:

Text Written and Display

Stroke Variation..... Stroke variation classifies how the thick and thin segments of the uppercase O transition. Both the angle of the transition and the speed of the transition are measured. Note: If the Contrast is No Contrast, then there cannot be a Stroke Variation.

Arm Style..... The Arm Style category classifies two attributes of a glyph design: special treatment of diagonal stems and termination of open rounded letterforms. Most font designs will classify as Straight Arms/Wedge or Straight Arms/Single Serif. The uppercase A and C are used extensively for this classification.

Letterform..... Most sophisticated typeface designs alter the roundness of the character shapes in order to give the font a distinctive appearance or balance of white-space. This roundness is classified in the Letterform category. In addition to the glyph roundness, the predominant skewing of the character forms is also recorded and used to isolate oblique characters. The uppercase O is used to determine this classification.

Midline The ninth category in the PANOSE classification system analyzes two traits, the placement of the midline across the uppercase characters and the treatment of diagonal stem apexes. The midline classification falls into one of four sub-categories: Standard, High, Constant, and Low. The apex treatment has only three variants: Trimmed, Pointed, and Serifed.

X-Height Two different traits are represented in the X-height digit: the treatment of uppercase glyphs with diacritical marks (such as Ã) and the relative size of the lowercase characters. The classification of these traits are simple and straightforward. Note: If a face does not have lowercase glyphs, it is a Decorative.

Handwritten

Contrast The Contrast digit describes the ratio between the thickest point on the letter O and the narrowest point on the letter O.

Topology The topology classification is a two step process. First the cursive face is separated into Roman, Cursive, and Blackletter based on the letterforms and then the connections between the letters are classified.

Form The form digit tries to measure the general look of the face. It combines two measures, the slope of the verticals and the wrap of the tails of connecting strokes, such as the curving stroke in the Upper D.

Finials The Finials classification examines the ends of strokes, such as the right bottom of the lower a, and the appearance of the ascenders of the lower case characters, as in the letter l.

X-Ascent The X-ascent classification describes the height of the lowercase characters relative to the uppercase characters.

Decorative

Serif Variant ..... The most sophisticated digit in the PANOSE classification system is the Serif Style digit. This digit describes the appearance of the serifs used in a font design and groups them into one of fourteen general categories.

Treatment ..... This digit describes the treatment of the total letters. For the sake of this digit it is assumed that the character actually consists of two parts, the outline and the fill within the outline.

Lining Lining refers to how the outlines of the characters are handled.

Topology This digit attempts to encapsulate unusual characteristics inherent in the topology of the font. Sometimes faces have more than one of these characteristics and the classifier must make a judgment call. Remember that the reason for PANOSE numbers is to make distinctions, so choose what seems to best characterize the unique features of the font.

Range of Characters ..... This digit quantifies the range of characters available in the decorative font.

Pictorial

Aspect ratio of character 94..... The Aspect Ratio is taken to be the height of character 94 divided by the black width. Character 94 was chosen to be in the Lower ASCII range and thus usually used.

Aspect ratio of character 119..... The Aspect Ratio is taken to be the height of character 119 divided by the black width. Character 119 was chosen to be in the Lower ASCII range and thus usually used.

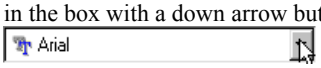
Aspect ratio of character 157..... The Aspect Ratio is taken to be the height of character 157 divided by the black width. Character 157 was chosen because it lies in the printer control area of the standard ASCII table and is thus often not used.

Aspect ratio of character 163..... The Aspect Ratio is taken to be the height of character 163 divided by the black width. Character 163 was chosen to be in the Upper ASCII (8-bit ASCII) range and thus will likely be used only in an extended symbol set.

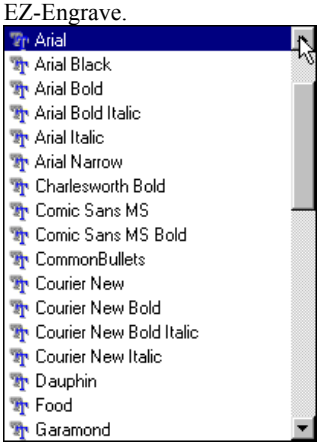
Aspect ratio of character 211..... The Aspect Ratio is taken to be the height of character 211 divided by the black width. Character 211 was chosen to be in the Upper ASCII (8-bit ASCII) range and thus will likely be used only in an extended symbol set.

FONT LIST

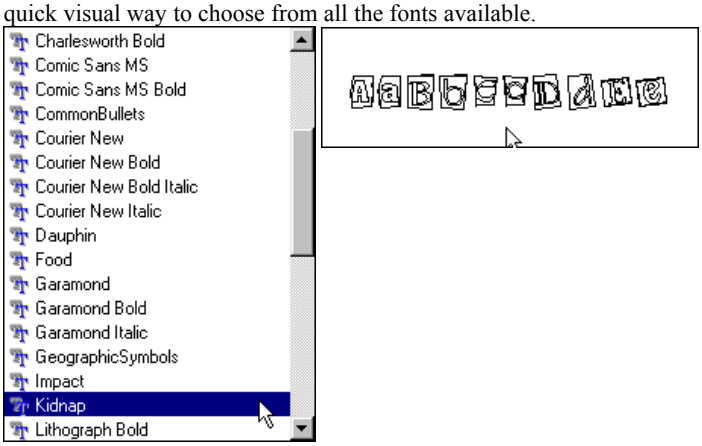
To the right of the Font Detective button is the Font List. When unselected the current font is displayed in the box with a down arrow button.



By pressing the down arrow access is provided to the complete list of fonts registered and installed in EZ-Engrave.



Scrolling down the list with either the mouse or with the down arrow key on the keyboard opens a fly-out display window showing a reduced character set of the selected font. This handy feature provides a quick visual way to choose from all the fonts available.



DEFINING TEXT ATTRIBUTES

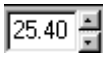
Before beginning to enter text from the keyboard, set the character and line attributes required by the present job, or generate the required text, and then sweep select all characters for formatting as necessary. EZ-Engrave's Text Compose offers very precise control over the text being generated.

CHARACTER SECTION

The Character section of the Text Compose tool bar allows for specification of the individual letter characteristics of the text being created.

Font Height

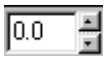
The Font Height edit box is used to specify the letter height of the text being entered, in the current unit of measurement. By convention, nominal height for a font is defined by the height of the upper case H. Every font has height information embedded in its code, EZ-Engrave reads this code and assume it to be correct. The only exception occurs when the font height is specified as 0 (zero). Under these circumstances, EZ-Engrave measures the letter height of the upper-case H and uses this measurement as the letter height.



To edit the Character Height either use the scroll bars to increase/decrease the Height value, or highlight the Height value and type in the required Height. Changes in height of characters will be applied to only the selected text and future text entered into the Text Entry box.

Font Slant Degree

The Font Slant option, when edited from the keyboard, allows the text to be tilted to the left or right as desired.



The Slant is measured in degrees. Entering a positive value applies a forward slant (top toward the right) while a negative value applies a backward slant (top toward the left).

Slant of +15 degrees

Slant of -15 degrees

Auto Kern Button

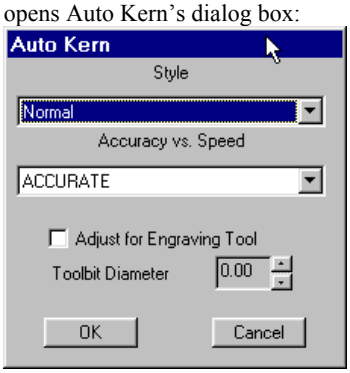
Selecting the type of kerning required does not apply the Auto Kern function to the text unless Auto Kern is activated. To invoke Auto Kern, click on the Auto Kern button, the button will have an indented look when activated.

To de-activate Auto Kern, click on the check box again, the button will appear as normal and unselected.

Auto Kern

EZ-Engrave's Professional Text Compose has a special kerning routine that replaces the kerning information contained within a given font. The Auto Kern feature measures each pair of characters and then spaces them by balancing the white space between the characters. This usually results in text that

is more pleasing to the eye. Auto Kern is accessed by right mouse clicking the Auto Kern button, this opens Auto Kern's dialog box:



Styles

There are five different Auto Kern styles available from this option:

Normal

The Normal style of kerning balances the amount of white space while maintaining a normal character spacing.

Wide

The Wide style of kerning places extra white space between characters. The additional space is roughly equal to the 120% of the normal spacing.

Narrow

The Narrow style draws characters closer together by reducing the amount of white space between them. The white space placed by this style is roughly equal to 80% of the normal spacing.

Touching

The Touching kerning style sets the spacing between letters such that they actually make contact with one another, but do not overlap.

Overlap

The Overlap kerning style causes adjacent letters to overlap by approximately 5% of the normal kerning space.

Accuracy Vs. Speed

Auto Kern works by measuring the distance between any two adjacent letters at several different points along the height of the letters. The accuracy of the spacing of letter pairs depends strongly on the number of points measured between them (points are a form of measurement). However, as the number of points measured increases, so does the amount of time required to calculate the proper spacing. EZ-Engrave offers the ability to draw a balance between the speed of Auto Kern, and its accuracy.

Fast

The Fast option measures only a limited number of points along the height of the letter pairs. This option typically provides quite acceptable results, and is very quick in calculating the space between letter pairs.

Accurate

The Accurate option measures a much larger number of points along the height of the letter pairs than the Fast option. As a result, this option is somewhat slower to calculate the appropriate spacing than the Fast setting, but provides more accurate results.

Adjust For Engraving Tool Check Box

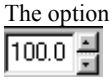
The Adjust For Engraving Tool check box when activated provides the option to set the Toolbit Diameter.

Toolbit Diameter

When using a router or engraver, the Toolbit diameter can be set in this value box, EZ-Engrave will then allow for the diameter of the Toolbit when performing Auto Kern on any text. This feature ensures that text is kerned in appropriate way so that text kerned to a Wide setting and routing with a large bit still has a large pair kerning space, as opposed to overlapping. Either type in a value or use the scroll arrows to the right of the box.

Kerning

The option allows for changing the kerning of text.



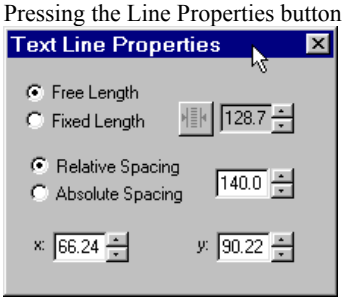
The changes made to the Kerning entry box are measured as a percentage of the natural kerning of the font. A setting of 100% is equal to the normal kerning. Lower values will draw letters closer together, while values greater than 100% will space the characters further apart.

Kerning of 115%
Kerning of 90%

LINE FORMAT SECTION

Line Properties Button

Pressing the Line Properties button opens the Text Line Properties dialog box:



Within the Text Line Properties Line Length can be adjusted as either Free Length or Fixed Length.

Free Length

Free Length allows the line to run to its natural length based on the height, width, and kerning of the fonts in the line of text. Selecting the Free Length option adjusts the length of the lines based on the standard font settings.

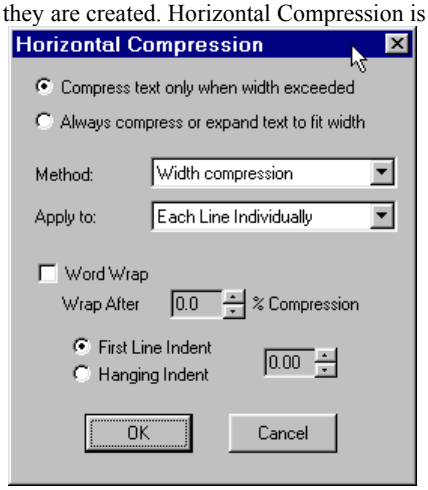
Fixed Length

Fixed Length sets the line length as specified by an absolute value, in the unit of measurement pre-determined in the General Preferences dialog box. Because the method for line width alteration must be specified, this option must be used in conjunction with the Compression option.

Selecting the Fixed Length option activates the Horizontal Compression button and value box 128.7.

Horizontal Compression

The Professional Text Compose module includes the option to control the length of lines of text as they are created. Horizontal Compression is the feature that controls this.



When using a compression type, specify a line length for the Compression function to operate. This length is specified under the Length option by activating the Fixed Length value in the Unit edit box.

There actually two very different options for controlling Line Length, Compression, and Compression/Expansion.

Choose Compression by activating the *Compress text only when width exceeded radio button*. Choose Compression/Expansion by activating the *Always compress or expand text to fit width.*

Compression Vs. Compression/Expansion

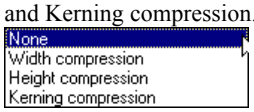
Compression allows for specification of a maximum length for a line of text. If the line of text does not reach that length, it will not be altered. If the line of text reaches that threshold length, EZ-Engrave will act upon it to restrict it from becoming longer.

Conversely, Compression/Expansion allows for specification of the absolute length to which a given line of text is to be drawn. If the line of text is naturally shorter than the specified length, it will be expanded, while being naturally longer than the specified length will cause the text to be compressed.

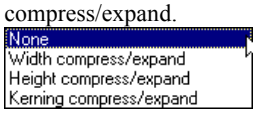
Put in simpler terms, specifying a Compression sets a Maximum length for a line of text, while a Compression/Expansion sets an Absolute length.

Method

The options available for Method of compression are: None; Width compression; Height compression; and Kerning compression.

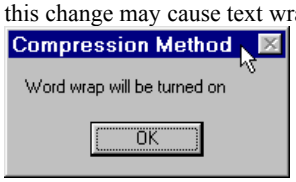


The options available for Method of Compression/Expansion are basically the same but apply also to the expansion, and are: None; Width compress/expand; Height compress/expand; Kerning compress/expand.



None

Click on this option and no restrictions will be applied to line length. Any text line will run freely according to the natural height, kerning, and width of the characters used in the text line. A Width value cannot be selected, when None is the selected Compression option. A warning to the effect that this change may cause text wrapping may appear.



Width Compression

Width Compression constrains a line of text to the specified maximum length by reducing the width of the characters in the line of text. This option will also reduce the character kerning proportionately, but will have no effect on character height. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Height Compression

Height Compression constrains a line of text to the specified maximum length by reducing the height of the font in the line of text. This option will also reduce the character width and kerning proportionately. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Kerning Compression

Kerning Compression constrains a line of text to the specified maximum length by reducing the kerning between characters in the line of text. This option will have no effect on either character height or width. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Width Compression-Expansion

Width Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the width of the characters as necessary. Character Kerning will also be scaled proportionately, but character Height will not be affected. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

Height Compression-Expansion

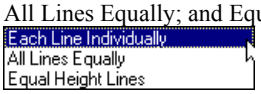
Height Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the height of the characters as necessary. Character Width and Height will also be scaled proportionately. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

Kerning Compression-Expansion

Kerning Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the space between the characters as necessary. Character Width and Height will not be affected. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

Apply To (Line Link and Direction)

The Apply to options determine how the lines in a multi-line paragraph of text are linked and the final direction for the compression effect. There are three options to choose from: Each Line Individually; All Lines Equally; and Equal Height Lines.



Each Line Individually

This option allows for treatment of each line in the paragraph independently when applying a compression or compression-expansion. The effect of this type of link is that each line of text may

have very different height, width, or kerning characteristics.

All Lines Equally

Applying compression or compression-expansion to All Lines Equally causes all lines to be compressed or expanded equally such that the longest line in the paragraph will exactly match the length (or maximum length) specified for the compression. The effect of this type of link is that all lines in a given paragraph will maintain exactly the same kerning and character width characteristics, regardless of the height of each of the individual lines.

Equal Height Lines

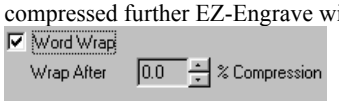
Applying this type of line link causes all lines in which the characters are the same height to be compressed or expanded such that the longest line of text will exactly match the length (or maximum length) specified for the compression. The effect of this type of line link is that all lines of text with equal height will maintain the same character width and kerning information, but will not necessarily have the same characteristics as those line of text with different character heights.

A Note About Line links And Character Height

For the purposes of linking lines for Compression, the height of the characters in a given line of text is defined by the height of the first character in that line. This becomes important when using the Equal Height Lines link. If a given line of text contains a mix of character sizes, the entire line will be compressed or expanded as if it were composed solely of characters of the same height as the first character in the line.

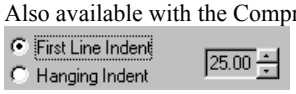
Word Wrap

The Word Wrap feature can be activated by clicking in the check box. When activated a Wrap After a set percentage of Compression can be edited to suit the requirements of the text layout. Therefore if a line of text exceeds a set line Length or Compression/Expansion value and cannot reasonably be compressed further EZ-Engrave will Wrap the text to the proceeding line.



Text Indent

Also available with the Compression/Expansion is an automatic Text Indent feature.



Text can be set to have a First Line Indent or a Hanging Indent, simply activate the appropriate radio button and set the required Indent value in the value box by using the scroll arrow or by highlighting

the current value and typing from the keyboard.

Line Spacing

This option allows for setting the vertical spacing between lines of text. Specifically, this option allows for specification of the distance between the baseline of the current line of text and the baseline of the line of text directly above it. The Line Spacing can be edited within the Line Properties dialog box or directly from the Text tool bar.

This distance can be edited from the keyboard or by using the scroll arrows, and can be set in one of two ways from the Line Properties dialog box:

Relative Spacing

Select the Relative Spacing radio button for specifying the line spacing as a percentage of the font height in the current line, this will adjust the Line Spacing value box in the Text tool bar to read as a percentage value as well. A setting of 150% is usually a reasonable default. Enter the required value in the Line Spacing value box.

Absolute Spacing

Select the Absolute Spacing radio button for specifying the line spacing as an absolute value for font height in the current line, this will adjust the Line Spacing value box in the Text tool bar to read as an absolute value as well. Unit Spacing allows for specifying the line spacing in the current unit of measurement, pre-determined in the General Preferences dialog box.

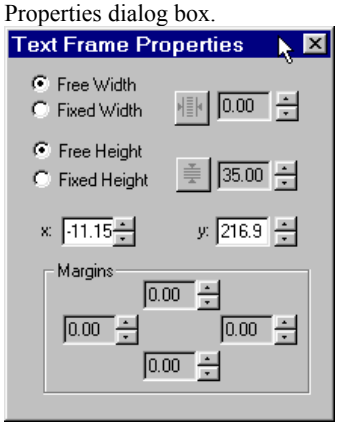
X Position, Y Position

These options allow for setting the starting point for the baseline of any line of text at a specific position relative to the lower left corner of the Sign Blank. For example, an X Position of 1.00 and a Y Position of 1.00 will position the line of text so that its baseline begins 1 unit above and 1 unit to the right of the lower left corner of the Sign Blank. The position is set relative to the lower left of the sign blank in the current unit of measurement, pre-determined in the General Preferences dialog box.

Note: When the Text Compose is first opened, the position of the cursor on screen where the mouse was clicked will determine the default values in the X Position and Y Position boxes for that editing session. These values will reflect the position of the cursor relative to the lower left corner of the sign blank.

FRAME PROPERTIES

Pressing the Frame Properties button while in Text Composition mode opens the Text Frame Properties dialog box.



The purpose of framing text is to contain any text entered into the paragraph within a defined area of specified width and height. This is a great feature for controlling placement of text when there is a limited area for the text.

Within the dialog box are controls for adjusting the width, as well as controls for the Height Compression, X and Y placement values, and Margin controls.

Free Width & Fixed Width

Explained in the Line Compression section earlier in this chapter *(pp.19)*.

Free Height

Free Height allows the paragraph to run to its natural height based on the height, width, and kerning of the fonts in the lines of text. Selecting the Free Height option adjusts the length and height of the lines based on the standard font settings.

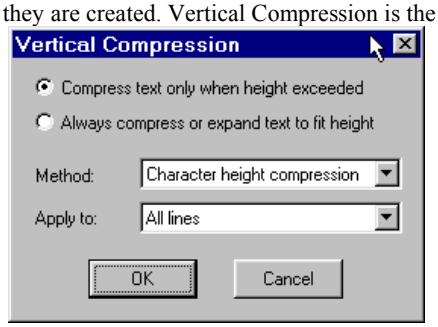
Fixed Height

Fixed Height sets the height of the paragraph as specified by an absolute value, in the unit of measurement pre-determined in the General Preferences dialog box. Because the method for line height alteration must be specified, this option must be used in conjunction with the Vertical Compression option.

Selecting the Fixed Height option activates the Vertical Compression button and value box 128.7.

Vertical Compression

The Professional Text Compose module includes the option to control the height of lines of text as they are created. Vertical Compression is the feature that controls this.



When using a compression type, specify a line height for the Compression function to operate. This height is specified under the Height option by activating the Fixed Height value in the Unit edit box.

There actually two very different options for controlling Line Height, Compression, and Compression/Expansion (as explained in the Horizontal Compression section).

Choose Compression by activating the *Compress text only when height exceeded* radio button. Choose Compression/Expansion by activating the *Always compress or expand text to fit width* radio button.

Compression Vs. Compression/Expansion

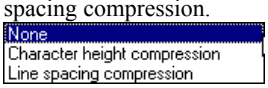
Compression allows for specification of a maximum height for a line(s) of text. If the line(s) of text does not reach that height, it will not be altered. If the line(s) of text reaches that threshold length, EZ-Engrave will act upon it to restrict it from becoming higher.

Conversely, Compression/Expansion allows for specification of the absolute height to which a given line or paragraph of text is to be drawn. If the line of text is naturally shorter than the specified height, it will be expanded, while being naturally longer than the specified height will cause the text to be compressed.

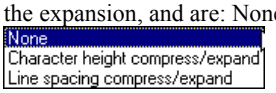
Put in simpler terms, specifying a Compression sets a Maximum height for a line of text or paragraph, while a Compression/Expansion sets an Absolute height.

Method

The options available for Method of compression are: None; Character height compression; and Line spacing compression.



The options available for Method of Compression/Expansion are basically the same but apply also to the expansion, and are: None; Character height compress/expand; and Line spacing compress/expand.



None

Click on this option and no restrictions will be applied to line height. Any text line will run freely according to the natural height, kerning, and width of the characters used in the text line. A Height value cannot be selected, when None is the selected Compression option.

Character Height Compression

Character Height Compression constrains the lines of text to the specified maximum height by reducing the height of the font in the lines of text. This option will also reduce the character width and kerning proportionately. Because this is a simple compression type, it will only have an effect on the height of lines if they exceed the value designated in the Units edit box. Otherwise, the lines of text will be allowed to run freely according to the other parameters set in Text Compose.

Line Spacing Compression

Line Spacing Compression constrains the lines of text to the specified maximum height by reducing the spacing between lines in the paragraph of text. This option will have no effect on either character height or width. Because this is a simple compression type, it will only have an effect on the height of the lines if they exceed the value designated in the Units edit box. Otherwise, the lines of text will be allowed to run freely according to the other parameters set in Text Compose.

Character Height Compression-Expansion

Character Height Compression/Expansion forces the lines of text to an absolute height by increasing or decreasing the height of the characters as necessary. Character Width and Kerning will also be scaled proportionately. Any line of text composed with this option selected will be forced to the height specified in the Units edit box.

Line Spacing Compression-Expansion

Line Spacing Compression/Expansion forces the lines of text to an absolute height by increasing or decreasing the space between the lines as necessary. Character Width and Height will not be affected. Any line of text composed with this option selected will be forced to the height specified in the Units edit box.

Apply To

The Vertical Compression options can only be applied to All Lines.

A Note About Character Height

For the purposes of linking lines for Compression, the height of the characters in a given line of text is defined by the height of the first character in that line. This becomes important when using the Equal Height Lines link. If a given line of text contains a mix of character sizes, the entire line will be compressed or expanded as if it were composed solely of characters of the same height as the first character in the line.

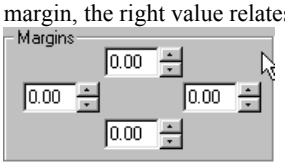
X Position, Y Position

These options allow for setting the starting point for the baseline of any line of text at a specific position relative to the lower left corner of the Sign Blank. For example, an X Position of 1.00 and a Y Position of 1.00 will position the line of text so that its baseline begins 1 unit above and 1 unit to the right of the lower left corner of the Sign Blank. The position is set relative to the lower left of the sign blank in the current unit of measurement, pre-determined in the General Preferences dialog box.

Margins

The Margins option places the text within the paragraph s set distance away from the frame edge. The layout of the Margins value boxes relates to the Margin affected (i.e., the top value relates to the top

margin, the right value relates to the right margin, etc…).



Use the scroll arrows to set the values, or highlight the current value and type in from the keyboard. The margins can only be set as positive or zero values.

TEXT ORIENTATION

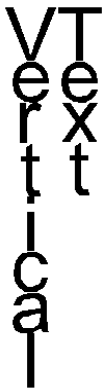
The Text Orientation section controls the direction that type can be entered and displayed there are three choices available in this parameter.

Horizontal Text 

Horizontal Text displays the text paragraph in order from left to right along a horizontal, top line to bottom line.

Vertical Text 

Vertical Text displays the text paragraph in order from top to bottom along a vertical line, left line to right line.



JUSTIFICATION

Justification is the control that specifies the vertical point to which text will be aligned when generated. There are four options available in this parameter.

Left Justify

Selecting the Left option causes the first characters of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run from a point on the left to the right, such that the left side of the paragraph is straight and linear, while the right side of the text is ragged.

Center Justify

Selecting the Center option causes the center of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run to the left and right from its center, such that both the left and right sides of the paragraph are ragged.

Right Justify

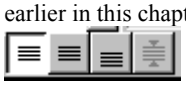
Selecting the Right option causes the last character of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run to a point on the right from the left, such that the right side of the paragraph is straight and linear, while the left side is ragged.

Horizontal Compression

The Horizontal Compression button opens the Horizontal Compression dialog box, explained earlier in this chapter *(pp.19)*.

LINE PLACEMENT/SPACING

The Line Placement/Spacing options work in conjunction with the Line Spacing feature explained earlier in this chapter *(pp.23)*.



There are four choices for controlling Line Placement.

Top Spacing

The Top Spacing option, also the default setting, places the Y placement value at the top of the Text Paragraph.

Center Spacing

The Center Spacing option places the Y placement value at the center of the Text Paragraph.

Bottom Spacing

The Bottom Spacing option places the Y placement value at the bottom of the Text Paragraph.

Vertical Compression

The Vertical Compression option is only activated if the Vertical Text Orientation option is selected. The Vertical Compression then functions in the same manner as the Horizontal Compression *(pp.25)*.

CASE CONTROL 

The series of Case Control buttons will reformat any selected text as follows:

 Upper Case ..... This button converts all selected text to upper case characters.

 Lower Case ..... This button converts all selected text to lower case characters.

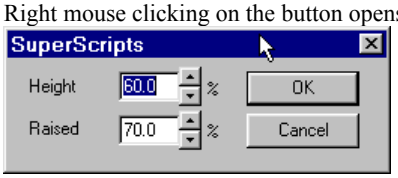
 Proper Name Case. This button causes characters that appear at the beginning of every selected word to be converted to upper case, while making all other selected characters lower case.

CHARACTER PLACEMENT CONTROL 

The series of Character Placement Control buttons will reformat any selected text as follows:

 Superscript ..... This button converts all selected text to Superscript characters.

Right mouse clicking on the button opens the Superscript Properties dialog box.



Height Value

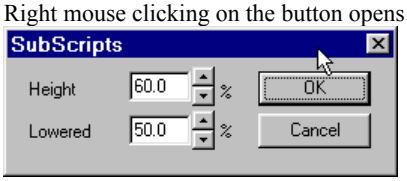
The Height value can be edited as a percentage value of the basic character setting.

Raised Value

The Raised value can be edited as a percentage of the basic character height and will raise any Superscript characters the given percentage value above the baseline of the text.

 Subscript ..... This button converts all selected text to Subscript characters.

Right mouse clicking on the button opens the Subscript Properties dialog box.



Height Value

The Height value can be edited as a percentage value of the basic character setting.

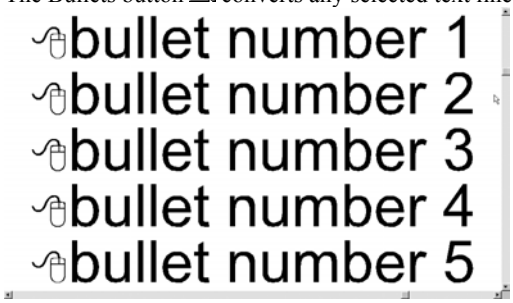
Lowered Value

The Lowered value can be edited as a percentage of the basic character height and will lower any Subscript characters the given percentage value below the baseline of the text.

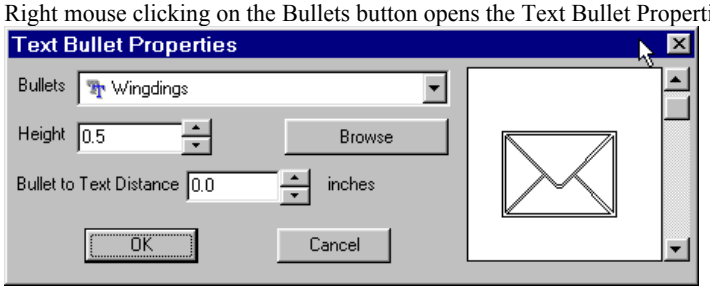
Unscript ..... This button causes all selected characters that appear as Superscript or Subscript to be converted back to standard character placement.

BULLETS

The Bullets button converts any selected text line to a bulleted format.



Right mouse clicking on the Bullets button opens the Text Bullet Properties dialog box.



Bullets Font

The Bullets Font list displays all fonts available for use as bullets. Press the down arrow to open the drop-down menu list and select a font by clicking on it.

Bullet Character Box

The Bullet Character display box displays the currently selected character for use as the bullet, use the up or down arrows on the scroll bar to view the complete character set available for use as bullets, simply click to select the appropriate character.

Browse Button

Use the Browse button if a font is not readily available to open the Font Detective feature explained earlier in this chapter *(pp.4)*.

Height

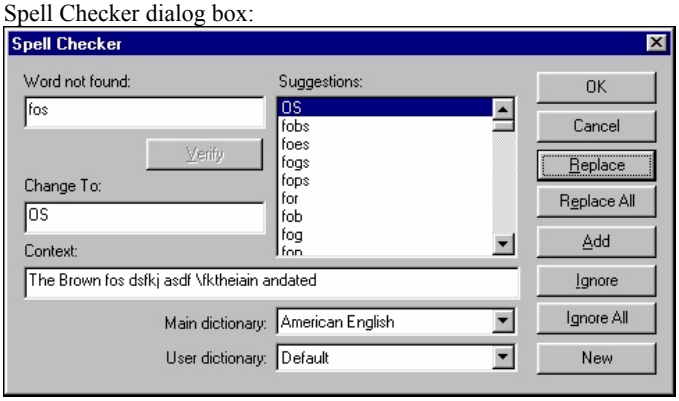
Set the height of the Bullet character to an absolute value based on the unit of measurement set in the General Preferences dialog box.

Bullet to Text Distance

Set the Bullet to Text Distance to an absolute value based on the unit of measurement set in the General Preferences dialog box. The unit of measurement currently in use is displayed next to the value box.

SPELL CHECK

EZ-Engrave's Professional Text Compose module is equipped with a Spell Check feature. To operate Spell Check, sweep-select the text to check and click on the Spell Check button. This opens the Spell Checker dialog box:



Word Not Found

The Word Not Found box displays the word that appears to be incorrectly spelled, the suggested replacement word (if any) in the Change To box.

Suggestions

In addition, a list of suggested replacement words will appear in the Suggestions box.

Change To

Where no suggestions are available, enter the appropriate word into the Change To box manually. Simply sweep-select the box, and enter the word as it should appear in the document.

Verify

To compare the spelling of a replacement word against the dictionary, press the Verify button. This causes the spell checker to look up the word in the dictionary.

Context

The context box shows the context of the word being used in a sample sentence, if the word is unknown no context will be shown.

Replace / Replace All

Once satisfied with the replacement word, either press Replace, or Replace All, by pressing the appropriate button. Replace changes only the current selection of the word, Replace All changes all occurrences of the word in the selected paragraph.

Add

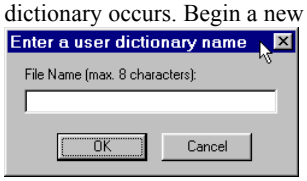
Where a word is perfectly legitimate, and should be added it to the personal dictionary, do so by clicking on the Add button. This causes the spell checker to add the word to the personal dictionary, and accept it, both currently and in the future, as a valid spelling.

Ignore / Ignore All

If the word is to be left as it appears (i.e., no changes) select the Ignore button for this instance of the word, or the Ignore All button for other instances in the current paragraph.

New

The New button provides the option of opening a new User dictionary, a prompt for a name for the dictionary occurs. Begin a new dictionary at any time by selecting New from the list.



Main

The spell checker uses two different dictionaries at any one time: the default dictionary which is supplied with Professional Text Compose, and a user-defined dictionary.

There can be as many personal dictionaries as required, each with a unique name, but only one can be accessed at a time, in addition to the Main library supplied with EZ-Engrave. Select a Main dictionary to work from. EZ-Engrave provides an entire library of different language dictionaries, including: American English; Danish; Dutch; Finnish; French; German; Italian; Portuguese (Brazilian); Spanish; Swedish; and UK English.

Any words added to the dictionary are included in the personal or user-defined dictionary, while the default dictionary remains constant.

User

To select a dictionary, click on the User list box, and select the name of the required dictionary from the list. Where no user dictionary exists, a prompt for a name for the dictionary occurs. Begin a new dictionary at any time by selecting New from the list.

The ability to support multiple dictionaries can be particularly important when more than language is used. For example, in the southern United States, it is not uncommon to require both English and Spanish on some signs, while in Canada, English and French are often used together in signage. In these cases, develop a dictionary for the second language by adding new words to the dictionary as they occur in files.

Braille

The Braille button is used to operate the Braille module. If the Braille module has not been purchased from Roland or one of its re-sellers, this option will not be available, and will be grayed out. Please consult the chapter in this manual entitled The Braille Module for details on the operation of this feature.

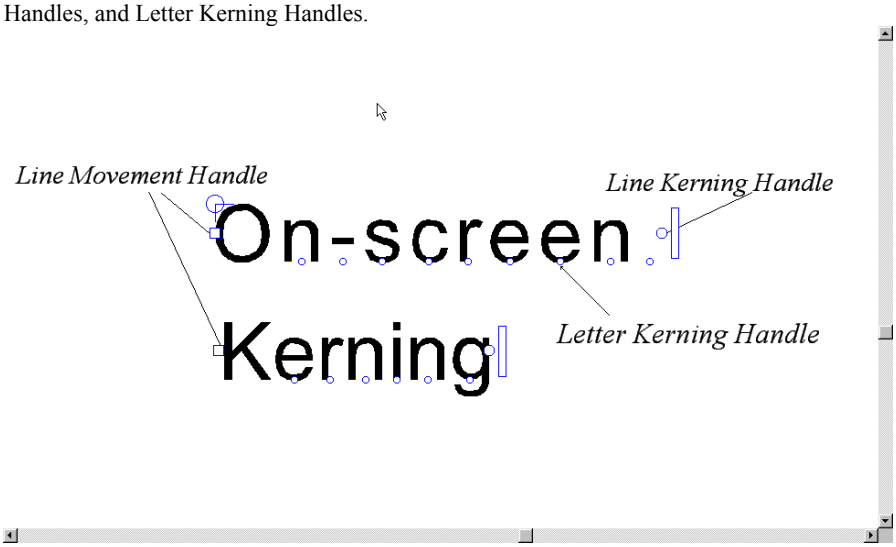
ON-SCREEN KERNING TOOL

The On-screen Kerning tool, previously referred to as the Interactive Text tool in earlier versions of EZ-Engrave, is available from the Text fly-out menu of the tool bar is also available from the Text Compose tool bar when Text Compose is activated.

This feature allows for making interactive adjustments to the text on screen. Specifically, adjust inter-line spacing, line kerning, individual letter pair kerning, and alignment skew of existing text through the use of this tool. Access this tool by any of three methods:

- Select an existing paragraph of text, click on the Text tool in the tool bar, from the fly-out menu, click on the On-screen Kerning tool;
- Double-click on an existing paragraph of text and from the Text tool bar activate the On-screen Kerning by pressing the button;
- Double-click on an existing paragraph of text while holding down the Control key to immediately activate the On-screen Kerning.

A series of control handles appear on the selected text: Line Movement Handles, Line Kerning Handles, and Letter Kerning Handles.



Each line of text in a given paragraph may be adjusted individually using the control handles. Click on a handle, a cross-hair will appear within the handle indicating that it is currently selected. All handles, once selected, may be moved using the arrow keys on the keyboard as follows:

- Pressing an arrow key will move the text in the appropriate direction by one pixel;
- Pressing and holding the Shift key while moving the handle with the arrow key causes the handle to move five pixels at a time.

Line Movement Handles

These handles appear at each side of the text. In addition, one large Line Movement Handle will appear at the focal point of the text's justification (i.e., left-justified text will have an additional handle on the left side of the line of text, right-justified, on the right, and center-justified at the center of the text). These handles, which appear as a small square nub, may be used to move any line of text from its current position independently from any other text in the paragraph, and without changing the appearance of the text.

Line Movement And The Control Key

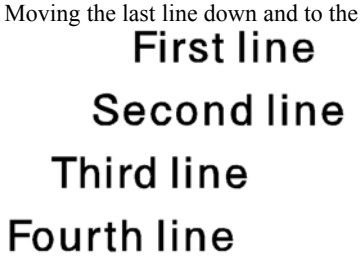
By pressing and holding the CTRL key, constrain Line movements to 90° increments from the baseline of the text. For example, if text is rotated 30° from horizontal, holding the Control key while operating a Line Movement Handle will constrain the movement to 30°, 120°, 210°, or 300° from horizontal.

Line Movement Handles And The Shift Key

The Line Movement Handles may also be used to re-align lines of text to present a more artistic or striking appearance. Specifically, generate a new vertical axis for the alignment of several lines of text by moving any single line (other than the first line of text) while holding down the Shift key. For example, moving the last line of text in a series of four while pressing the Shift key will cause all lines of text in the paragraph to re-align themselves such that they take up positions that are evenly spaced both vertical and horizontally between the first and last lines. In other words... given this text:

First line
Second line
Third line
Fourth line

Moving the last line down and to the left produces these results:



Note that each line of text has re-aligned itself to the axis created between the first and last lines of text, and that each line of text is evenly spaced relative to each other line.

Line Kerning Handles

The Line Kerning Handles allow for adjustment of the kerning in any given line of text independently of other lines in the paragraph. These rectangular handles will always appear on the side of the text opposite the focal point of the text's justification (i.e., on the right for left-justified text, on the left side for right-justified text, and on both sides for center-justified text) as a larger circular handle. There are two modes for this tool: inter-character mode, and inter-word mode.

Inter-Character Mode

By dragging the Line Kerning handle, the kerning of all characters, including the space between words, will be adjusted to fit between the Line Kerning handle and the focal point of the line. This allows for adjustment of the length of a given line of text by changing the kerning, or adjustment of the kerning of the text by extending or shrinking the line length.

Inter-Word Mode

To adjust the length of a line of text without affecting the kerning of the letter pairs in the text, press and hold the Control key while dragging the Line Kerning handle. This causes the inter-word spacing to expand or contract without affecting the space between letter-pairs in the line of text.

Character Kerning Handles

Each character in a given line of text, including space characters, has an associated Character Kerning handle, that appears directly below the character in the form of a small round nub. These handles are useful in adjusting letter-pair kerning without changing the kerning characteristics of the other letter pairs in the line of text.

When moving any Character Kerning handle, both the selected character and all characters that are away from the focal point of the line of text will be moved. For example, given a left-justified line of text, any adjustments made using the Character Kerning handles will cause all of the characters to the right of the selected character to move with the selected character.

To move a selected character independently from all other characters in the line of text, simply press and hold the CTRL key while moving the character. This allows for changes to be made without affecting the position of the others letters in the line of text.

TEXT AUTO LAYOUT 

Create an effective pleasing layout, quickly and easily with the Auto Layout feature of EZ-Engrave.

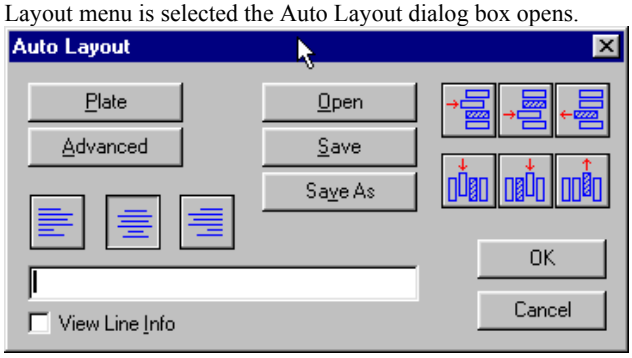
Auto Layout supports manual setup of a plate as well the development of plates based on the relationships between the elements included in the layout.

The Text Auto-Layout tool  available from the Text fly-out menu in the tool bar is also available from the Layout menu as the Auto-Layout option.

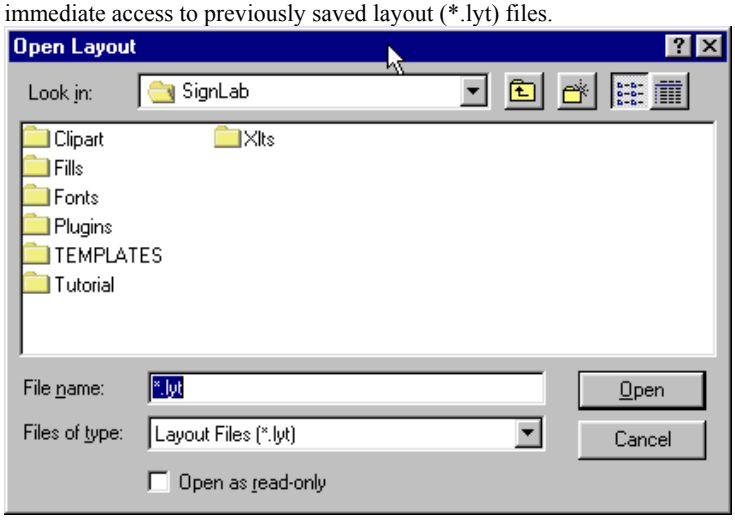
> ***Note:*** When working with the Auto Layout feature, the Undo function is temporarily disable. As a result, be careful about using the delete function available in Auto Layout.

Auto Layout operates by placing various cells in a pattern of lines. Text and/or graphics can be placed within each cell. Each layout (pattern) contains at least one line with one cell, however each layout can contain many lines with each line containing a different number of cells, as many as required for a particular pattern. The cells are represented in EZ-Engrave by a blue box. Within each cell there is a representation of a default text alignment, that appears in red. The Cell height represents the height of the text or graphic to be placed within the cell (note that letter height is defined as the nominal height of the upper case 'M' in any given typeface).

When either the Auto Layout button in the Text fly-out menu or the Auto Layout option from the Layout menu is selected the Auto Layout dialog box opens.



The Auto Layout feature provides the ability to create layouts and save them for later use in other projects. When Auto Layout is first accessed, the Open Layout dialog box is also opened, to provide immediate access to previously saved layout (*.lyt) files.



The Open Layout dialog box behaves in the same manner as the EZ-Engrave Open dialog box for files, however there are fewer options to choose from. The only new feature in the Open Layout dialog box is the Open as read-only option, which when selected opens the *.lyt file as a read only file. This ensures protection of the *.lyt file, as the new file must be saved under a new name.

Plate

Selecting the Plate button opens the Plate Dimensions dialog box, to set the size of the plate (width by height) and the number of lines to be included within the plate.

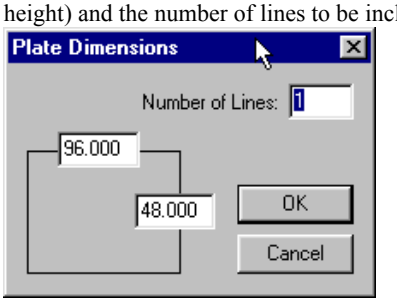


Plate Dimensions

The Plate is the rectangle upon which the layout is created. It is typically sized to match the substrate (i.e., badge, plaque, or other finished product) for final output.

The default plate size is equal to the size of the selected object when Auto Layout is accessed. If no objects are selected (or more than one object is selected), the plate size is defaulted to the size of the Sign Blank.

Number of Lines

A Line is a series of boxes (or Cells) that runs from left to right across the layout, and into which text or graphics are inserted.

Set the size parameters first, then set the number of lines of text these values can be edited later if required.

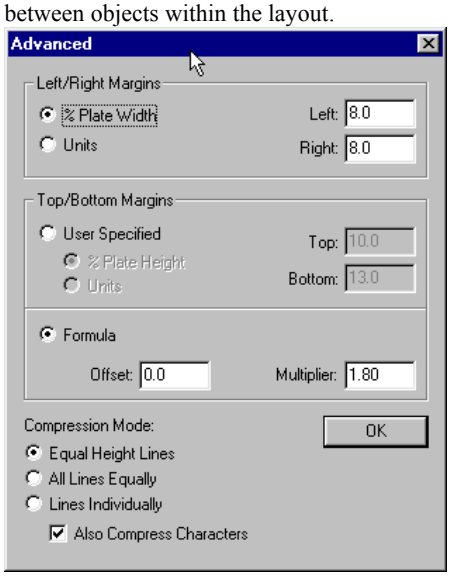
OK

Pressing OK accepts the data and returns to the Auto Layout dialog box.

Advanced

The Advanced button opens the Advanced dialog box providing access to more advanced features in the setup of the Auto Layout tools, including the ability to develop layouts using specific relationships

between objects within the layout.



Margins

There are four margins in any layout: top, bottom, left, and right. These margins represent the distance between the nearest edge of a cell (or cells) and the edge of the plate. The margins for each layout are indicated in each of the four corners by crop marks, these crop marks appear green on-screen.

Left / Right Margins

The left and right margins can be specified as a percentage of the plate width, or as an absolute value by selecting the appropriate radio button. The values for the margins can then be set in the entry boxes on the right.

Top / Bottom Margins

The top and bottom margins can be specified by the user or by a mathematical formula, simply select the appropriate radio button: User Specified, or Formula.

User Specified

Specify the top and bottom margins manually as a percentage value of the height of the plate, or as an absolute unit value by selecting the appropriate radio button. The values for the margins can then be set in the entry boxes on the right.

Formula

Selecting the Formula option, causes EZ-Engrave to calculate the top and bottom margins automatically based on the Offset value and Multiplier value entered combined with the number, size, and spacing of the lines included in the plate.

> ***Note:*** Inter-line spacing is the distance between the bottom of any given line and the top of the line directly below it

Offset

The Offset setting specifies the difference in height between the upper and lower margins as a percentage value of the entire plate height. A positive value causes the bottom margin to be larger than the top margin, while a negative value has the reverse effect.

Multiplier

The Multiplier setting governs the ratio of inter-line spacing with the top and bottom margins. Specifically, this number represents the top and bottom margin size as a multiple of the average inter-line space.

For example, if the inter-line spaces average 1 inch in size, and the multiplier is 2, then the average size of the top and bottom margins is 4 inches.

Compression Mode

Where necessary, text is compressed to fit into the cells defined in the layout. Cells can have the compression mode set independently of other cells or as a group. The method used for linking the lines in a layout determines the final effect of the compression style applied. There are three compression modes to choose from: Lines individually; All Lines Equally; and Equal Height Lines.

Lines Individually

The Lines Individually option provides the ability to treat each line in a paragraph independently when applying a compression. The effect of this compression mode is that each line of text may have very different height, width, and kerning characteristics.

All Lines Equally

Applying compression to All Lines Equally causes EZ-Engrave to find the cell that requires the most compression, and then compress all others to the same extent. The effect of the compression mode is that all cells in a layout display the same width and kerning characteristics, regardless of the height of the text in each line.

Equal Height Line

EZ-Engrave treats all the cells with text of the same height as a group for the purposes of compressing text when the Equal Height Lines compression mode is selected. EZ-Engrave finds all the cells of the same height and then selects the cell that requires the most compression. EZ-Engrave then applies this compression value to all cells of the same height. The effect of this type of compression mode is that all lines of text with equal height display the same width and kerning values, but not the same width and kerning values as those lines of text with different height values.

Also Compress Characters

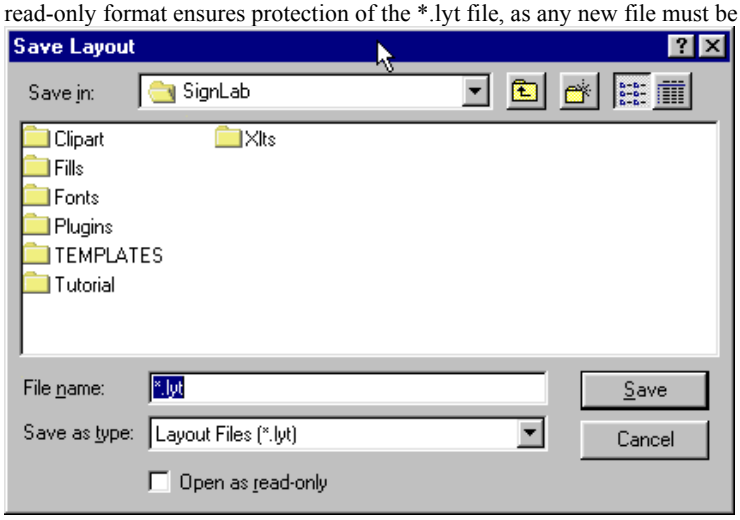
All text entered into a line or cell will be compressed by EZ-Engrave to fit within the boundaries of the cell. When this option is de-activated only the kerning (space between characters) is affected. When this option is activated the character width itself will also be compressed along with the kerning.

Open, Save, Save As

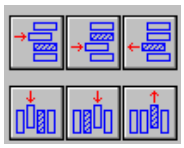
The auto Layout feature provides the ability to create layouts in EZ-Engrave and save them for later use with other projects. The Open, Save ,and Save As buttons allow for the creation, modification, and use of layout files, in the *.lyt file format.

The Open Layout and Save Layout dialog boxes behave in the same manner as the EZ-Engrave Open and Save dialog boxes, however there are fewer options to choose from. The only new feature is the

Open as read-only option, which when selected opens and/or saves the *.lyt file as a read only file. The read-only format ensures protection of the *.lyt file, as any new file must be saved under a new name.



Line and Cell Controls



Insert Line Before Selected 

The Insert Line Before button inserts a line of cells above the currently selected line. The new line will be identical to the currently selected line, except that the cells will not contain any text.

Insert Line After Selected 

The Insert Line After button inserts a line of cells below the currently selected line. The new line will be identical to the currently selected line, except that the cells will not contain any text.

Delete Selected Line 

The Delete Selected Line button removes the currently selected line of cells. Deleting a line also deletes the contents of the cells within the line, including a text.

> ***Note:*** The Undo feature is not available in Auto Layout, as such be careful when deleting lines, as critical layout information can be deleted along with the corresponding lines.

Insert Cell Before Selected 

The Insert Cell Before button inserts a cells to the left of the currently selected cell. The new cell will be identical to the currently selected cell, except that it will not contain any text.

Insert Cell After Selected 

The Insert Cell After button inserts a cells to the right of the currently selected cell. The new cell will be identical to the currently selected cell, except that it will not contain any text.

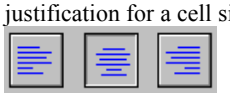
Delete Selected Cell 

The Delete Selected Cell button removes the currently selected cell. Deleting a cell also deletes the contents of the cell, including a text.

> ***Note:*** The Undo feature is not available in Auto Layout, as such be careful when deleting cells, as critical layout information can be deleted along with the corresponding cells.

Text Justification Controls

When developing text layouts in Auto Layout, there are three justification options for the text alignment: Left, Center, and Right. The justification of the text can be defined cell by cell. To set the justification for a cell simply select the cell and press the appropriate justification button.



Left Justify 

Left justify the text in the cell by pressing this button.

Center Justify 

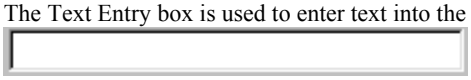
Center justify the text in the cell by pressing this button.

Right Justify 

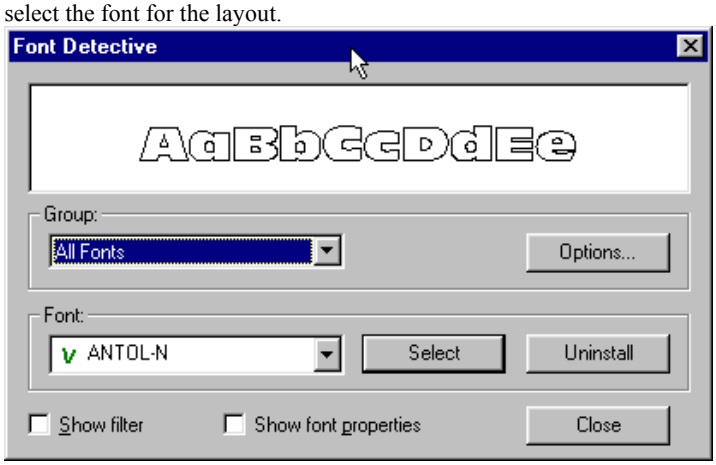
Right justify the text in the cell by pressing this button.

Text Entry Box

The Text Entry box is used to enter text into the selected cell.



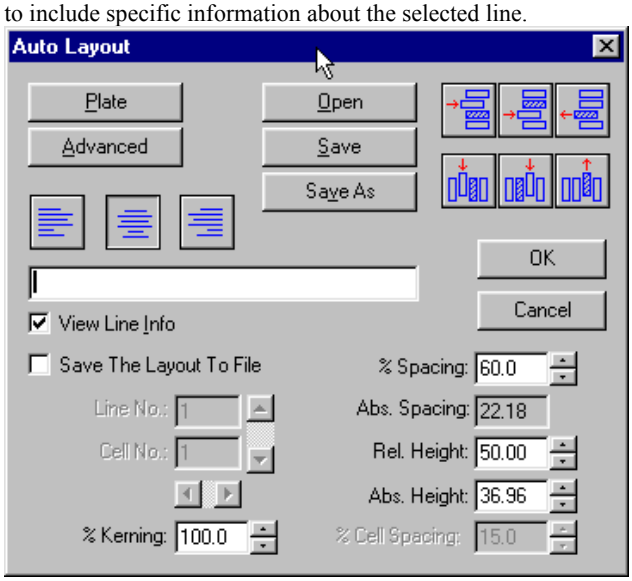
Once text has been entered and the OK button is pressed the Font Detective opens to provide access to select the font for the layout.



For more information on the Font Detective see page 3-4 of this chapter.

View Line Info

Activating the View line Info, by placing and x in the checkbox, extends the Auto Layout dialog box to include specific information about the selected line.



Save The Layout To File

This pair of entry boxes provides the ability to navigate between the cells and lines of the layout. Either enter the appropriate number in the entry field or use the scroll arrows to scroll through the cells. Cell numbers are in ascending order from left to right, top to bottom.

Line and Cell Number

This pair of entry boxes provides the ability to navigate between the cells and lines of the layout. Either enter the appropriate number in the entry field or use the scroll arrows to scroll through the cells. Cell numbers are in ascending order from left to right, top to bottom.

% and Absolute Spacing

The percent and absolute spacing represent the distance from the top of the selected cell to the bottom of the cell immediately above. The distance can be specified as either a percentage or absolute value.

Relative Height

This box provides the ability to set the height of the selected line based on the size of the other lines in the layout. For example, setting the line to 100% causes another line with a Relative Height of 50% to be half the height of the 100% line, while another line set at 150% will be one and a half times the height of the selected 100% line. Editing the Relative Height effects the Absolute Height value.

Absolute Height

This box provides the ability to set the height of the line as an absolute value. Editing the Absolute Height effects the Relative Height value.

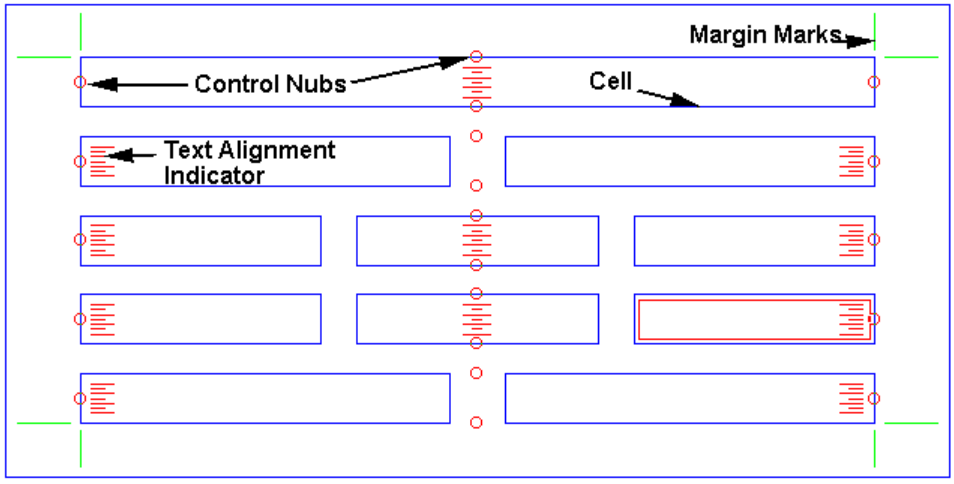
% Cell Spacing

This setting is used to define the spacing between the cells in the selected line. Specifically, the space between the cells is defined as a percentage of the width of the cells.

Main View Controls with Auto Layout

There are several controls available in the main view screen. These controls operate differently depending on whether you have selected User Defined or Formula in the Advanced layout dialog box. The difference between these two modes is that the Formula mode always recalculates the margins, cell sizes, and interline spacing such that they meet the specifications in the Advanced layout dialog box, while the User Specified mode maintains the settings for margins and spacing.

Various parts of the Auto Layout template as seen on the main view screen.



- The plate outline is blue;
- The four margin marks (crop marks) are green;
- The control nubs are red, with each line having four: right, left, top, and bottom;
- The text alignment indicators are red, with each cell containing one indicator;
- The cell outlines are blue, with the selected cell denoted by a red frame within the outline.

Keyboard Control Options within Auto Layout

There are also several control options, for adding, cells and lines as well as navigating from cell to cell, available when in the Auto Layout dialog box:

- Pressing [Enter] after entering text in box adds an identical line of cells below the selected cell;
- Pressing [Shift+Enter] ads an identical cell to the selected line, and resizes the cells to fit the line;
- Pressing [Tab] shifts the focus into the next adjacent cell in the layout (moving from left to right, top to bottom);
- Pressing [Shift+Tab] shifts the focus to the previous adjacent cell in the layout (moving from right to left, bottom to top);
- Pressing the [Up or Down Arrow] on the keyboard move the focus to the cell before (UP), or after (Down) the currently selected cell.

Mouse Control Options within Auto Layout

Adding cells or lines and deleting cells in the layout can also be achieved using the mouse on the main view screen. The height attributes of lines and width attributes of cells and margin sizes can also be controlled using the mouse on the main view screen.

Adding a cell or line

To add a cell or line of cells combine a right mouse click with a keyboard command, as follows:

- Click on the top control nub while holding [Shift] to place a new line of cells above the selected nub, the new line will be identical to the line directly beneath it, including cell and text attributes;
- Click on the bottom nub while holding [Shift] to place a new line of cells below the selected nub, the new line will be identical to the line directly above it, including cell and text attributes; and/or
- Click on any cell while holding [Shift} to place a new identical cell to the right of the selected cell, all cells in the line will be resized to fit within the plate.

Deleting a cell

To delete a cell combine a right mouse click with a keyboard command as follows:

- Click on any cell while holding [Control] to delete the selected cell, the remaining cells in the line will be resized to fit within the plate. In the case of a line that contains a single cell being deleted, all remaining lines will be resized to fit within the plate.

Changing Margin Sizes

To change the margin sizes combine a right mouse click with a keyboard command as follows:

- Drag the top nub of the top line, or the bottom nub of the bottom line to adjust the top and bottom margins of the layout (if Formula mode is selected the will have no effect);

Changing Line Attributes

To change the attributes of a line of cells combine a right mouse click with a keyboard command as follows:

- Drag the top or bottom nub of any line (other than the top-most or bottom-most nubs) to change the height of the selected line and it's inter-line spacing. If Formula mode is selected this will also cause changes to all of the other lines, so the layout maintains the specified requirements in the Advanced Layout dialog box;
- Drag any side nub to change the selected margin size for the selected line, shrinking the cell widths within the line to fit the new line size. The cell spacing maintains the setting specified in the % Cell Spacing;
- Drag any side nub while holding [Control] to change both margin sizes for the selected line, for example if the right margin is already set to twice the size of the left margin this ratio will be maintained while both margin sizes are either increased or decreased. This feature restricts the size of the line to respect the ratio of the margin sizes while maintaining the minimum margin setting defined in the Advanced Layout dialog box;
- Drag any side nub while holding [Shift] to reset the selected line to be centered in the layout while resizing the margins, all cells are resized to fit within the new line width;
- Drag any side nub while holding [Shift+Control] to move the selected line of cells laterally within the constraints of margin width settings in the Advanced Layout dialog box (if the line measures the full margin width it cannot be moved).

EDITING TEXT

Once entered into the Text Paragraph box, text can be edited. To do so, double-click the paragraph box, sweep-select the text to edit, and make the changes required. To add to a text paragraph, insert the cursor where the new text is to be added, set any options as required, and enter the text.

Editing Text Displayed on the View Screen

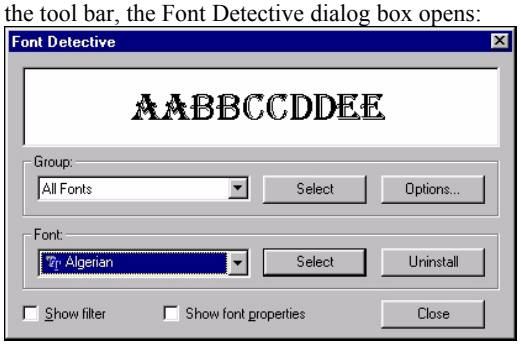
To edit text displayed on the view screen, first select the text and open Text Compose with the selected text as the target paragraph:

- Click on any character of the paragraph of text to edit with the Text tool;
- Select the Edit Text option from the Edit menu; alternatively
- Double-click on any part of the paragraph of text.

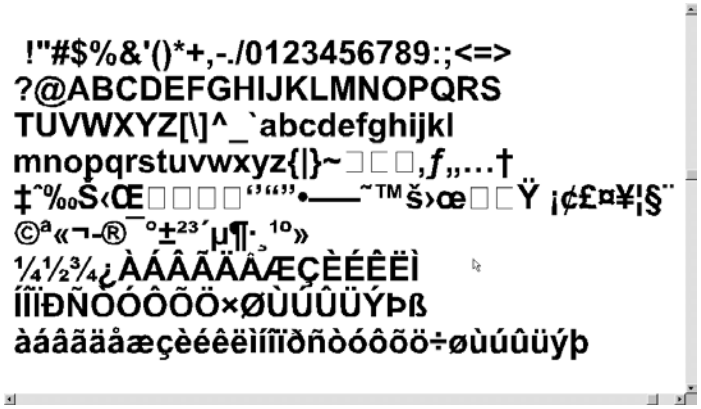
The Text Compose tool bar will appear at the top of the view screen with the selected text paragraph ready for editing.

VIEW EXTENDED CHARACTER SETS

EZ-Engrave has the added functionality of printing the entire extended character set for a given font onto the view screen. Right mouse click on the Text Compose tool from the Text fly-out menu in the tool bar, the Font Detective dialog box opens:



Select the font of choice and press the Select Font button, the selected font will be placed in the view screen.



COMPOSING TEXT SIGNAGE USING 4.95 METHOD

To start composing text:

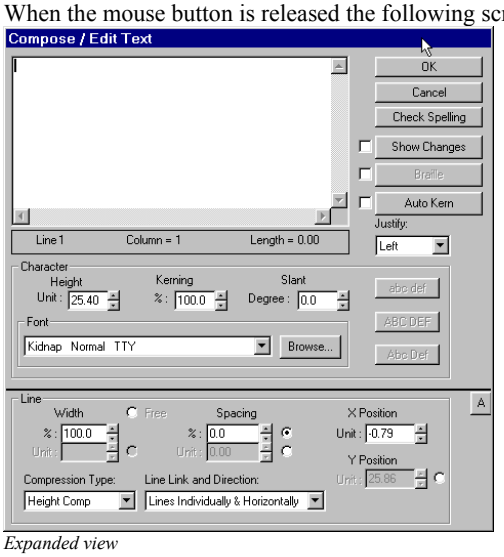
- Click on the Text Compose tool in the Toolbox.
- Click on the Text tool in the fly-out menu that appears.
- Move the cursor to the position on screen where the text message is to appear and click the mouse.

Compressing or expanding the composed text:

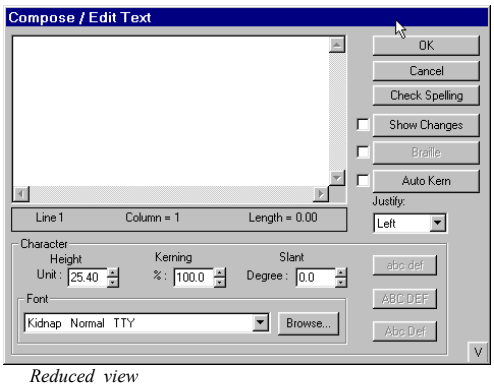
- Move the cursor to the position on the screen where the text message is to appear and then drag the cursor to a new location to the right.

The distance moved will determine the width of the text string. The text string will be compressed or expanded to fit within this space

When the mouse button is released the following screen appears:



Expanded view



Reduced view

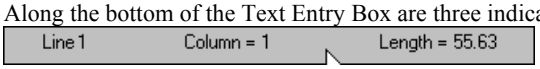
This dialog box is articulated and can be expanded to display all of the available options in Text Compose (shown), or it can be contracted to conserve space on screen. When the dialog box is expanded to full size, pressing the A button reduces it to a smaller size. When operating in the smaller mode, pressing the V button returns the dialog box to full size.

Text Entry Box

The Text Compose dialog box contains a text entry box where text messages from the keyboard are entered. Text may be entered from the keyboard, or it may be pasted from the Windows clipboard.

Text entered into the Text Entry Box remains ASCII text, and can be exchanged with the Clipboard. An example of this facility is seen in the Text Compose Tutorial included with the EZ-Engrave package as a separate booklet.

Along the bottom of the Text Entry Box are three indicators: Line; Column; and Length.



Line Indicator

Line indicates the line number on which the cursor is positioned at any time. The first line is number one, the second line is number two, etc...

Column Indicator

Column indicates the sequential number of the current character at which the cursor is positioned. The first character in a line is character number one, the second character in a line is number two, etc...

Length Indicator

Length indicates the length of the current line on which the cursor is positioned. The length is indicated in the unit of measurement as selected in the General Preferences dialog box.

Defining Text Attributes

Before beginning to enter text from the keyboard, set the character and line attributes required by the present job, or choose to generate the required text, and then sweep select all characters for formatting as necessary. EZ-Engrave's Text Compose offers very precise control over the text being generated.

Justify

Justification is the control that specifies the vertical point to which text will be aligned when generated. There are four options available in this parameter.

Left

Selecting the Left option causes the first characters of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run from a point on the left to the right, such that the left side of the paragraph is straight and linear, while the right side of the text is ragged.

Right

Selecting the Right option causes the last character of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run to a point on the right from the left, such that the right side of the paragraph is straight and linear, while the left side is ragged.

Center

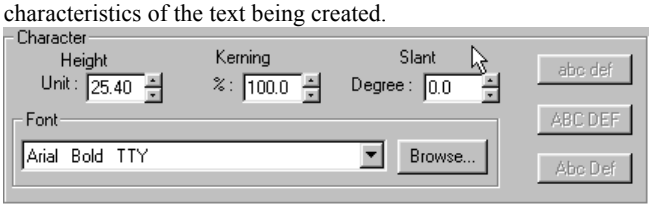
Selecting the Center option causes the center of each line of text to be lined up vertically with the point selected by the Text tool on the view screen. This option causes each line of text to run to the left and right from its center, such that both the left and right sides of the paragraph are ragged.

None

The None option performs in the same manner as the Left option.

Character Section

The Character section of the Text Compose dialog box allows for specification of the individual letter characteristics of the text being created.



Height

This edit box is used to specify the letter height of the text being entered, in the current unit of measurement. By convention, nominal height for a font is defined by the height of the upper case H. Every font has height information embedded in its code, EZ-Engrave reads this code and assume it to be correct. The only exception occurs when the font height is specified as 0 (zero). Under these circumstances, EZ-Engrave measures the letter height of the upper-case H and uses this measurement as the letter height.

To edit the Character Height either use the scroll bars to increase/decrease the Height value, or highlight the Height value and type in the required Height. Changes in height of characters will be applied to only the selected text and future text entered into the Text Entry box.

Kerning

This option allows for changing the kerning of text. The changes made to the Kerning entry box are measured as a percentage of the natural kerning of the font. A setting of 100% is equal to the normal kerning. Lower values will draw letters closer together, while values greater than 100% will space the characters further apart.

Kerning of 115%
Kerning of 90%

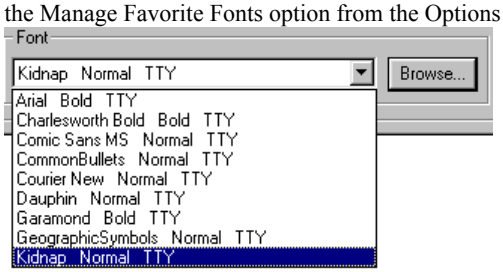
Slant

This option, when edited from the keyboard, allows the text to be tilted to the left or right as desired. The Slant is measured in degrees. Entering a positive value applies a forward slant (top toward the right) while a negative value applies a backward slant (top toward the left).

Slant of +15 degrees
Slant of -15 degrees

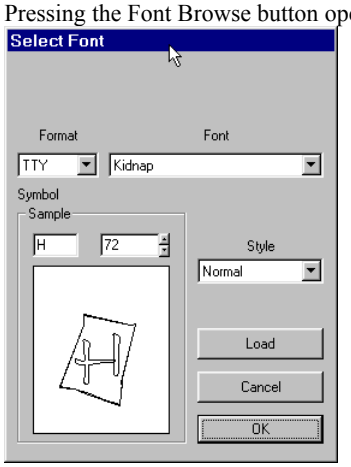
Font

This scroll box allows for the selection of a font from the active fonts list. The active font list includes all of the fonts registered within the currently open file, and any font designated as a Favorite Font in the Manage Favorite Fonts option from the Options menu.



Font Browse Button

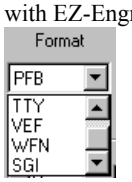
Pressing the Font Browse button opens the Select Font dialog box:



The Select Font dialog box is used to navigate through the system to select fonts compatible with EZ-Engrave from any drive or directory. To select a font, click on the scroll arrow and scroll through the list, clicking on the name of the font required.

Format

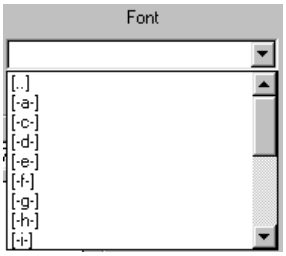
This drop down list displays the format of font selected, there are five format types available for use with EZ-Engrave: PFB, TTY, VEF, WFN, and SGI.



Font

This box displays the selected font, use the scroll arrows to scroll through the directory, at the bottom of the list the drive directories and double dots (for accessing the previous level in the directory

structure are available.



Font Language

This option displays the language of font whether Arabic, Braille, Chinese, Cyrillic, Greek, Hebrew, Latin, Japanese, or symbol.

Sample (ANSI code)

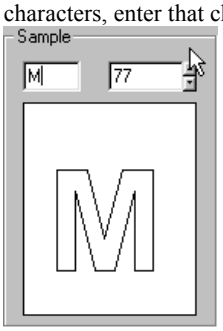
Because computers understand numeric information only, each character in a typeface has a numeric value assigned to it. This numeric value, known as an ANSI code, is used by the computer in place of the 256 character shapes contained in standard typefaces.

The ANSI code and Character boxes allow for scrolling through a font by either the ANSI code or the characters.

ANSI code is particularly useful as it allows for selection of characters that may not appear on the keyboard. For example the extended character sets which include special characters such as the Ç commonly used in French. To use ANSI characters insert the code for the character while depressing the Alt key ([Alt+0199] equals Ç).

Character Display

The Character display box shows the selected character as it appears in the selected font. To view other characters, enter that character into the character box (or the ANSI code in the ASNI code box).



Style

Most fonts contain a single typestyle (i.e., bold, italic, etc…). However, some fonts are supplied with different typestyles embedded into the one font file. For example, some of the WFN fonts supplied with earlier versions of CorelDRAW!™. Fonts with several styles associated within a single file will have options displaying the available styles in the Style drop-down menu.

Once a font has been selected, all of the text generated will appear in that font until another is selected.

Load

The Load button behaves in a similar fashion to the Apply button in other dialog boxes, it will install the font to the file without closing the Select Font dialog box, allowing for further fonts to be loaded.

> ***Note:*** For more information about selecting fonts see Manage Favorite Fonts in the Options Menu section of this chapter.

ANSI Characters

Because the computer understands only numeric information, each character in a typeface will have a numeric value assigned to it. This numeric value, known as an ANSI code, is used by the computer in place of the 256 character shapes contained in most standard typefaces.

ANSI codes are particularly useful, because they allow for selection of characters that may not appear on the keyboard. For example, if the sign being created requires a special character, such as the 'Ç' commonly used in French, insert the ANSI code [Alt+0199] into the text, and the required character appears in place.

Entering Extended ANSI Characters Into Text Compose

There are two methods by which an ANSI character can be entered into the EZ-Engrave Text Compose dialog box once the ANSI code is found:

- Position the cursor where the character is to be placed in the Text Entry box, press and hold the [Alt+0xxx] (zero) where xxx equals the ANSI code, or
- Cut and Paste the character from the Character display box in the Select Font dialog box into the Text Entry box where the character is required.

Case Control

The series of Case Control buttons will reformat any selected text as follows:

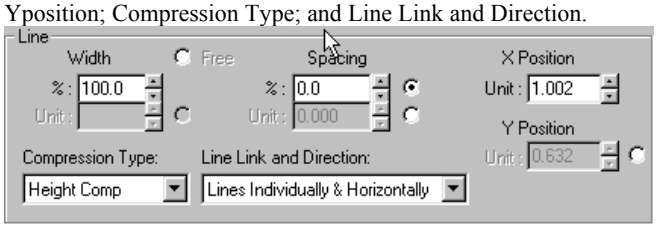
abc def This button converts all selected text to lower case characters.

ABC DEF This button converts all selected text to upper case characters.

Abc Def This button causes characters which appear at the beginning of every selected word to be converted to upper case, while making all other selected characters lower case.

Line Format Section

The Line Format section is available from the bottom area when the articulated Text Compose dialog box is in the expanded state. The options within the Line Format area are: Width; Spacing; XPosition; Yposition; Compression Type; and Line Link and Direction.



Width

The Width entry box is used to control the width of any line of text. Specify the line length in one of three ways:

- Free Width allows the line to run to its natural length based on the height, width, and kerning of the fonts in the line of text.
- Percentage (%) Width sets the width of the line to a specified percentage of the natural width of the line. This option must be used in conjunction with the Compression option discussed earlier in this chapter in order to have an effect.
- Unit Width sets the line length as specified by an absolute value, in the unit of measurement pre-determined in the General Preferences dialog box. Because the method for line width alteration must be specified, this option must be used in conjunction with the Compression option discussed earlier in this chapter.

Line Spacing

This option allows for setting the vertical spacing between lines of text. Specifically, this option allows for specification of the distance between the baseline of the current line of text and the baseline of the line of text directly above it. This distance can be edited from the keyboard or by using the scroll arrows, and can be set in one of two ways:

- Percentage (%) Spacing allows for specifying the line spacing as a percentage of the font height in the current line. A setting of 150% is usually a reasonable default.
- Unit Spacing allows for specifying the line spacing in the current unit of measurement, pre-determined in the General Preferences dialog box.

X Position, Y Position

These options allow for setting the starting point for the baseline of any line of text at a specific position relative to the lower left corner of the Sign Blank. For example, an X Position of 1.00 and a Y Position of 1.00 will position the line of text so that its baseline begins 1 unit above and 1 unit to the right of the lower left corner of the Sign Blank. The position is set relative to the lower left of the sign blank in the current unit of measurement, pre-determined in the General Preferences dialog box.

Note: When the Text Compose dialog box is first opened, the position of the cursor on screen where the mouse was clicked will determine the default values in the X Position and Y Position boxes for that editing session. These values will reflect the position of the cursor relative to the lower left corner of the sign blank.

Compression

The Professional Text Compose module includes the option to control the length of lines of text as they are created. Compression Type is the feature that controls this.

When using a compression type, specify a line width for the Compression function to operate. This length is specified under the Width option by entering a value in the Unit edit box.

There actually two very different types of control, Compression, and Compression/Expansion.

Compression Vs. Compression/Expansion

Compression allows for specification of a maximum length for a line of text. If the line of text does not reach that length, it will not be altered. If the line of text reaches that threshold length, EZ-Engrave will act upon it to restrict it from becoming longer.

Conversely, Compression/Expansion allows for specification of the absolute length to which a given line of text is to be drawn. If the line of text is naturally shorter than the specified length, it will be expanded, while being naturally longer than the specified length will cause the text to be compressed.

Put in simpler terms, specifying a Compression sets a Maximum length for a line of text, while a Compression/Expansion sets an Absolute length.

Height Compression

Height Compression constrains a line of text to the specified maximum length by reducing the height of the font in the line of text. This option will also reduce the character width and kerning proportionately. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Kerning Compression

Kerning Compression constrains a line of text to the specified maximum length by reducing the kerning between characters in the line of text. This option will have no effect on either character height or width. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Character Width Compression

Width Compression constrains a line of text to the specified maximum length by reducing the width of the characters in the line of text. This option will also reduce the character kerning proportionately, but will have no effect on character height. Because this is a simple compression type, it will only have an effect on the length of a line if it exceeds the value designated in the Units edit box. Otherwise, the line of text will be allowed to run freely according to the other parameters set in the Text Compose dialog box.

Height Compression-Expansion

Height Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the height of the characters as necessary. Character Width and Height will also be scaled proportionately. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

Kerning Compression-Expansion

Kerning Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the space between the characters as necessary. Character Width and Height will not be affected. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

Width Compression-Expansion

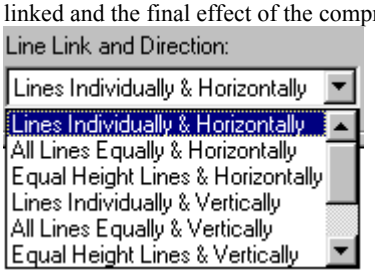
Width Compression/Expansion forces the line of text to an absolute length by increasing or decreasing the width of the characters as necessary. Character Kerning will also be scaled proportionately, but character Height will not be affected. Any line of text composed with this option selected will be forced to the width specified in the Units edit box.

None

Click on this option and no restrictions will be applied to line length. Any text line will run freely according to the natural height, kerning, and width of the characters used in the text line. A Width value cannot be selected, when None is the selected Compression option.

Line Link and Direction

The Line Link and Direction options determine how the lines in a multi-line paragraph of text are linked and the final effect of the compression. There are six options from which to choose:



Lines Individually & Horizontally

This option allows for treatment of each line in the paragraph independently when applying a compression or compression-expansion. The effect of this type of link is that each line of text may have very different height, width, or kerning characteristics.

Lines Horizontally

All Lines Equally & Horizontally

Applying compression or compression-expansion to All Lines Equally & Horizontally causes all lines to be compressed or expanded equally such that the longest line in the paragraph will exactly match the length (or maximum length) specified for the compression. The effect of this type of link is that all lines in a given paragraph will maintain exactly the same kerning and character width characteristics, regardless of the height of each of the individual lines.

Equal Height Lines & Horizontally

Applying this type of line link causes all lines in which the characters are the same height to be compressed or expanded such that the longest line of text will exactly match the length (or maximum length) specified for the compression. The effect of this type of line link is that all lines of text with equal height will maintain the same character width and kerning information, but will not necessarily have the same characteristics as those line of text with different character heights.

A Note About Line links And Character Height

For the purposes of linking lines for Compression, the height of the characters in a given line of text is defined by the height of the first character in that line. This becomes important when using the Equal Height Lines link. If a given line of text contains a mix of character sizes, the entire line will be compressed or expanded as if it were composed solely of characters of the same height as the first character in the line.

Lines Individually & Vertically

This option allows for treatment of each line of vertical text in the paragraph independently when applying a compression or compression-expansion. The effect of this type of link is that each vertical line of text may have very different height, width, or kerning characteristics.

All Lines Equally & Vertically

Applying compression or compression-expansion to All Lines Equally & Vertically causes all vertical lines to be compressed or expanded equally such that the longest line in the paragraph will exactly match the length (or maximum length) specified for the compression. The effect of this type of link is that all lines in a given paragraph will maintain exactly the same kerning and character width characteristics, regardless of the height of each of the individual lines.

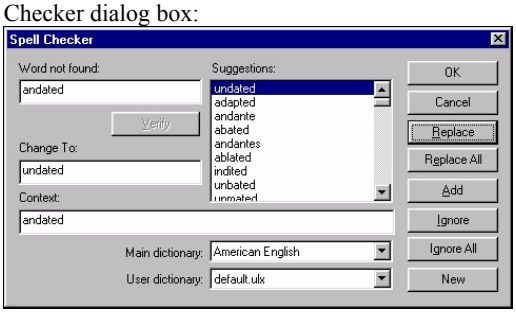
Equal Height Lines & Vertically

Applying this type of line link causes all lines in which the characters are the same height to be compressed or expanded such that the longest line of text will exactly match the length (or maximum length) specified for the compression. The effect of this type of line link is that all lines of text with equal height will maintain the same character width and kerning information, but will not necessarily have the same characteristics as those line of text with different character heights.

Check Spelling

Spell Checker

EZ-Engrave's Professional Text Compose module is equipped with a Spell Checker. To operate this feature, sweep-select the text to check and click on the Check Spelling button. This opens the Spell Checker dialog box:



Word Not Found

The Word Not Found box displays the word that appears to be incorrectly spelled, the suggested replacement word (if any) in the Change To box.

Suggestions

In addition, a list of suggested replacement words will appear in the Suggestions box.

Change To

Where no suggestions are available, enter the appropriate word into the Change To box manually. Simply sweep-select the box, and enter the word as it should appear in the document.

Verify

To compare the spelling of a replacement word against the dictionary, press the Verify button. This causes the spell checker to look up the word in the dictionary.

Replace / Replace All

Once satisfied with the replacement word, either press Replace, or Replace All, by pressing the appropriate button. Replace changes only the current selection of the word, Replace All changes all occurrences of the word in the selected paragraph.

Ignore / Ignore All

If the word is to be left as it appears (i.e., no changes) select the Ignore button for this instance of the word, or the Ignore All button for other instances in the current paragraph.

Add

Where a word is perfectly legitimate, and should be added it to the personal dictionary, do so by clicking on the Add button. This causes the spell checker to add the word to the personal dictionary, and accept it, both currently and in the future, as a valid spelling.

Context

The context box shows the context of the word being used in a sample sentence, if the word is unknown no context will be shown.

Main

The spell checker uses two different dictionaries at any one time: the default dictionary which is supplied with Professional Text Compose, and a user-defined dictionary. Any words added to the dictionary are included in the personal or user-defined dictionary, while the default dictionary remains constant.

There can be as many personal dictionaries as required, each with a unique name, but only one can be accessed at a time, in addition to the Main library supplied with EZ-Engrave. Select a Main dictionary to work from.

User

To select a dictionary, click on the User list box, and select the name of the required dictionary from the list. Where no user dictionary exists, a prompt for a name for the dictionary occurs. Begin a new dictionary at any time by selecting New from the list.

The ability to support multiple dictionaries can be particularly important when more than language is used. For example, in the southern United States, it is not uncommon to require both English and Spanish on some signs, while in Canada, English and French are often used together in signage. In these cases, develop a dictionary for the second language by adding new words to the dictionary as they occur in files.

Show Changes

The Show Changes button will display in the view screen any changes made to the text. To display changes, move the Compose / Edit Text dialog box away from the area where the text appears and press the Show Changes button.

The Show Changes check box causes EZ-Engrave to update the text on screen automatically when certain events occur. These events include:

- Turning on Show Changes;
- Cutting text from the Text Entry box;
- Changing the Height of selected characters;
- Changing the Kerning of selected text;
- Changing the Slant of selected text;
- Setting a new Line Width;
- Setting a new Line Spacing;
- Setting a new X- or Y-Position;
- Pressing the Enter (Return) key;
- Changing the Font of selected text.

Braille

The Braille button and checkbox controls are used to operate the Braille module. If the Braille module has not been purchased from Roland or one of its re-sellers, this option will not be available, and will

be grayed out. Please consult the chapter in this manual entitled The Braille Module for details on the operation of this feature.

Auto Kern

EZ-Engrave's Professional Text Compose has a special kerning routine that replaces the kerning information contained within a given font. The Auto Kern feature measures each pair of characters and then spaces them by balancing the white space between the characters. This usually results in text that is more pleasing to the eye. Auto Kern is accessed by pressing the Auto Kern button, this opens the Auto Kern dialog box:

Styles

There are five different Auto Kern styles available from this option:

Normal

The Normal style of kerning balances the amount of white space while maintaining a normal character spacing.

Wide

The Wide style of kerning places extra white space between characters. The additional space is roughly equal to the 120% of the normal spacing.

Narrow

The Narrow style draws characters closer together by reducing the amount of white space between them. The white space placed by this style is roughly equal to 80% of the normal spacing.

Touching

The Touching kerning style sets the spacing between letters such that they actually make contact with one another, but do not overlap.

Overlap

The Overlap kerning style causes adjacent letters to overlap by approximately 5% of the normal kerning space.

Accuracy Vs. Speed

Auto Kern works by measuring the distance between any two adjacent letters at several different points along the height of the letters. The accuracy of the spacing of letter pairs depends strongly on the

number of points measured between them (points are a form of measurement). However, as the number of points measured increases, so does the amount of time required to calculate the proper spacing. EZ-Engrave offers the ability to draw a balance between the speed of Auto Kern, and its accuracy.

Fast

The Fast option measures only a limited number of points along the height of the letter pairs. This option typically provides quite acceptable results, and is very quick in calculating the space between letter pairs.

Accurate

The Accurate option measures a much larger number of points along the height of the letter pairs than the Fast option. As a result, this option is somewhat slower to calculate the appropriate spacing than the Fast setting, but provides more accurate results.

Adjust For Engraving Tool Check Box

The Adjust For Engraving Tool check box when activated provides the option to set the Toolbit Diameter.

Toolbit Diameter

When using a router or engraver, the Toolbit diameter can be set in this value box, EZ-Engrave will then allow for the diameter of the Toolbit when performing Auto Kern on any text. This feature ensures that text is kerned in appropriate way so that text kerned to a Wide setting and routing with a large bit still has a large pair kerning space, as opposed to overlapping. Either type in a value or use the scroll arrows to the right of the box.

Auto Kern Check Box

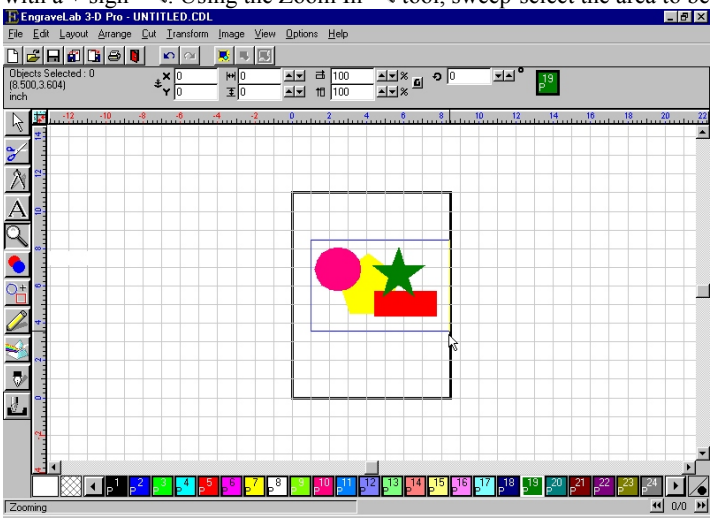
Selecting the type of kerning required does not apply the Auto Kern function to the text unless Auto-Kern is activated. To invoke Auto Kern, click on the Auto Kern check box. To de-activate Auto Kern, click on the check box again.

ZOOM TOOL

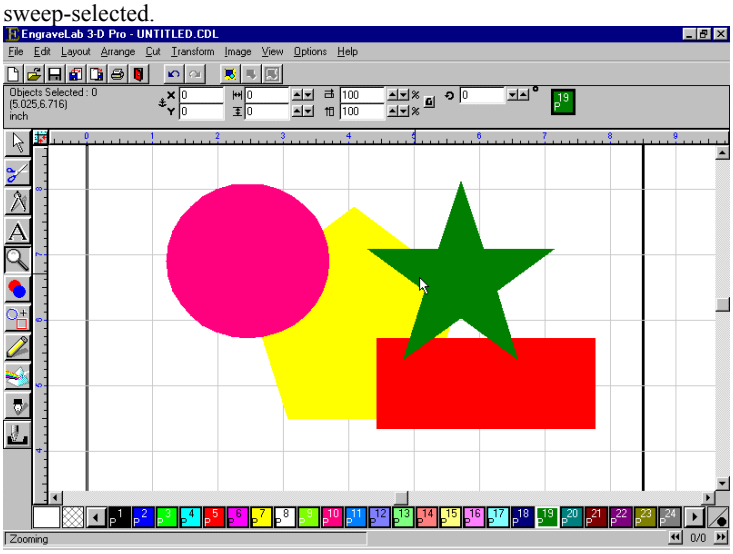
ZOOM IN TOOL

The Zoom In tool provides the ability to zoom into a selected area of the graphic and magnify it.

- Select the Zoom In tool icon from the zoom menu and the cursor changes to a magnifier with a + sign . Using the Zoom In tool, sweep-select the area to be magnified;



- Upon release of the mouse button, the screen will redraw to show only that area that has been sweep-selected.



The Zoom In tool remains active until another tool is selected from the toolbox. This allows for continued zooming-in, without having to re-select the tool.

Keyboard Shortcut:
Pressing [F5] selects the Zoom In tool.
Note: The Zoom In tool is used to define a "window" around a selected portion of the graphic.

ZOOM OUT TOOL

A drawing can be made smaller on the screen by successively clicking on the Zoom Out icon on the Zoom menu bar. The Zoom Out tool may also be invoked while using the Zoom In tool, by clicking the right mouse button instead of the left.

***Keyboard Shortcut*:**
Pressing [F6] activates the tool.

ZOOM TO SELECTED OBJECT TOOL

Selecting the Zoom to Selected tool causes the viewing window to fit the selected objects exactly into the boundary of the screen. If no objects are selected then all objects will be fit to the screen.

Keyboard Shortcut:
Pressing [F7] activates the tool.

ZOOM TO SIGN BLANK TOOL

Selecting the Zoom to Sign Blank tool causes the viewing window to fit any selected Sign Blank designated in the Layout menu.

Keyboard Shortcut:
Pressing [F8] activates the Zoom to Sign Blank tool.

RETURN TO PREVIOUS VIEW TOOL

Selecting the Return to Previous View tool, when zoomed in or zoomed out on an object will automatically change the screen view to any previous zoomed view. This tool is extremely useful to toggle back and forth between views when working at extreme detail.

***Keyboard Shortcut*:**
Pressing [F9] activates the Return to Previous View tool.

WELD TOOL

The Weld tool is used to delete overlapping sections between two distinct objects or overlapping sections of the same object and convert these into one fused or welded object.

This tool is useful when working, for example, with script fonts that have a "lead-in" and "lead-out" on each character that overlaps the adjacent letter. If adjacent (and overlapping) letters are not welded prior to actually cutting them on the plotter, the letters will be cut such that they overcut each other. The Weld tool removes those overlapping cuts to make script lettering flow together as a single object. The Weld tool is also useful to eliminate overlaps between two objects created during Outlining of text messages and other objects. There are two levels of Weld available in EZ-Engrave.

> ***Note:*** All items that are welded become Poly-arcs. These Poly-arcs can be edited using the Arc Edit tool found with the Graphic Creation tools explained in detail later in the Chapter.

BASIC WELD

The Basic Weld tool is used to delete overlapping sections between two different objects in the same color layer, or overlapping sections of the same object, and convert these into one fused or welded object. The Basic Weld tool can be found in the main toolbox and is represented by the icon. This tool is useful when working, for example, with script fonts which have a "lead-in" and "lead-out" on each character that overlaps the adjacent letter. Without welding the overlaps, the letters will rout with overlapped routing lines. The Basic Weld tool removes those overlaps to make script lettering flow together as a single object.

To weld two overlapping sections together:

- Select the two objects or two groups of objects that are to be welded with the Select tool.
- Click on the Basic Weld icon in the toolbox.

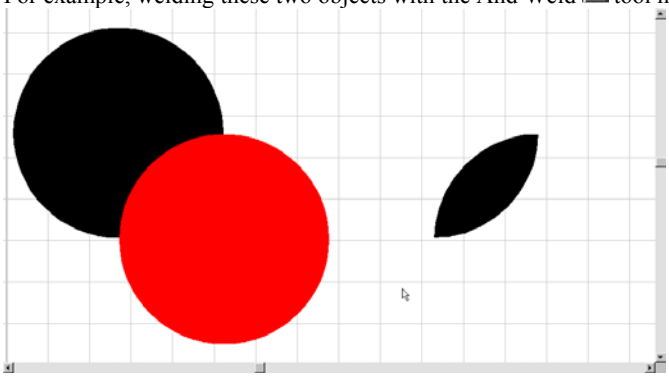
The objects will be welded together into a single object.

> ***Note:*** For both Basic and Advanced welding, to weld text select the overall text string to be welded. Text will automatically be converted into graphics before welding.

And Weld

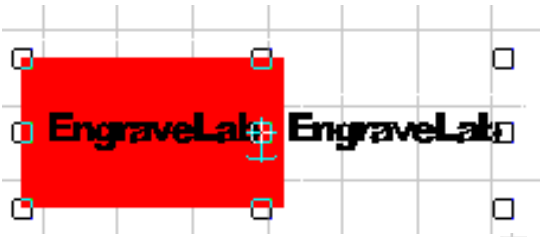
This And Weld tool is represented by the And Weld icon in the Welds fly-out toolbox. The And Weld welds two overlapping objects leaving the area which was occupied by both (the area occupied by this AND this -- hence the name, the And Weld). It is a 'what you don't see is what you get' weld, because the resulting objects will be rendered in the color of the hidden object.

For example, welding these two objects with the And Weld tool has the following results:



Note: that the resulting object is defined by the area where the two circles overlap, and is the same color as the object that was partially hidden.

The And Weld tool is used for graphical effects such as fancy clipping as follows:

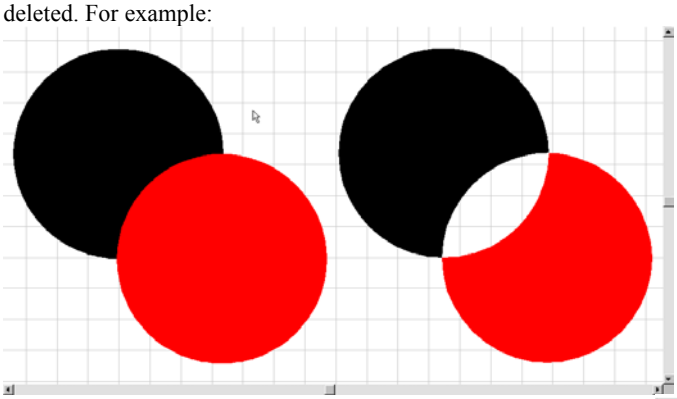


EZ-Engrave is laid over a different color Apply the And Weld for this result.

Note: Only two overlapping objects or group of objects can be welded at the same time. If there are three or more objects that overlap at the same location these must be organized into two groups before they can be welded.

Or Weld

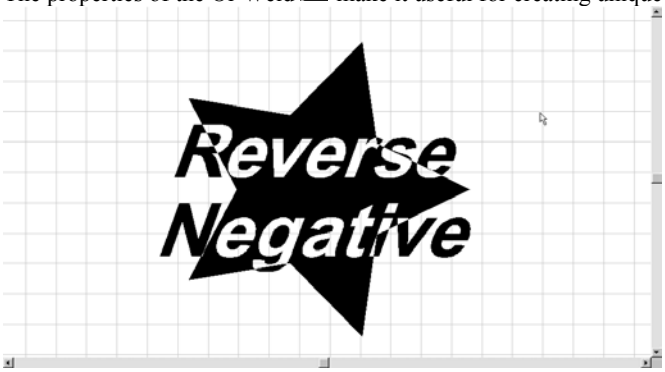
Welding with the Or Weld tool will cause all areas where the selected objects overlap to be deleted. For example:



Two overlapping objects.

The objects welded using the Or Weld

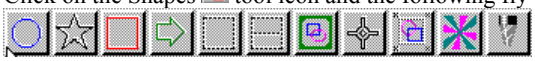
The properties of the Or Weld make it useful for creating unique special effects like this:



Note: Only two overlapping objects or groups of objects can be welded at the same time. If there are three or more objects that overlap at the same location, they must be organized into two groups before they can be welded.

SHAPES TOOL

- Click on the Shapes tool icon and the following fly-out tool bar appears:



> ***Note:*** For all shapes that can be drawn the following rules apply.
> Pressing the [Shift] key while dragging will cause the shape to grow from the center.
> Pressing the [Ctrl] key while dragging will force the shape to be perfectly circular.
> Pressing the [Ctrl+Shift] keys while dragging will cause the perfect circle to grow from the middle.

CIRCLES/ELLIPSES

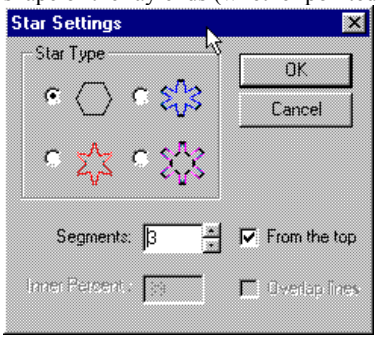
- Select the Circle icon from the Shapes fly-out menu. This permits drawing circles and ellipses on the screen;
- Drag the pointer on the screen and a circle/ellipse appears to grow behind the moving pointer.

STARS AND POLYGONS

EZ-Engrave supports the automatic construction of polygons, star bursts, seals, and gear shapes.

Selecting Shapes for the Stars/Polygons Tool

- From the Shape tool right mouse select the Stars/Polygon tool to open the Star Settings dialog box;
- Select a shape, the number of points to be included in the shape, the core diameter, and the shape of the ray ends (whether pointed or square);



- Press OK to save the settings, these settings will now be applied to the Stars/Polygons tool.

Drawing a Star or Polygon

- Select the Stars/Polygons tool from the Shapes fly-out menu;
- Drag the pointer on the screen and a Star/Polygon appears to grow behind the moving pointer.

RECTANGLES

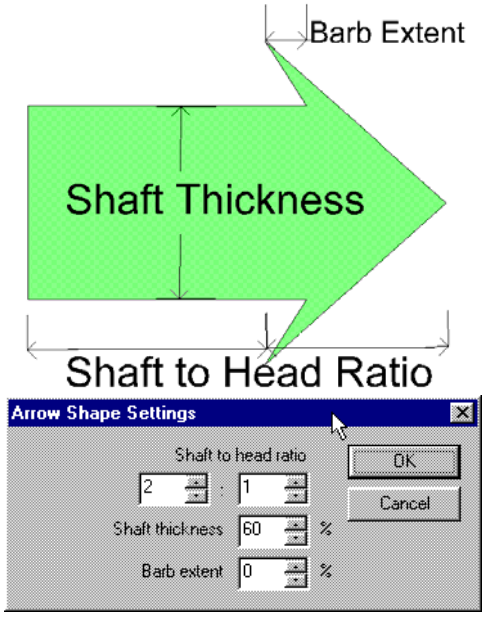
- Select the icon from the Shapes fly-out menu. This permits drawing rectangles on the screen;
- Drag the pointer on the screen and a rectangle appears to grow behind the moving pointer.

ARROWS

EZ-Engrave supports the automatic construction of Arrows.

Selecting Shapes for the Arrow Tool

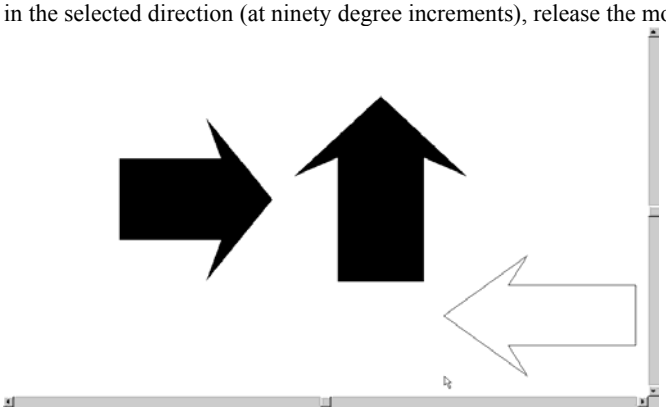
- From the Shape tool right mouse select the Arrow tool to open the Arrow Shape Settings dialog box;
- Select a Shaft to head ratio, the Shaft thickness, and the Barb extent, (see diagram below);



- Press OK to save the settings, these settings will now be applied to the Arrow tool.

Drawing an Arrow

- Select the Arrow tool from the Shapes fly-out menu;
- Drag the pointer on the screen and a Arrow appears to grow behind the moving pointer;
- As the cursor is rotated clock-wise or counter-clockwise the arrow-head follows and points in the selected direction (at ninety degree increments), release the mouse to create Arrow.

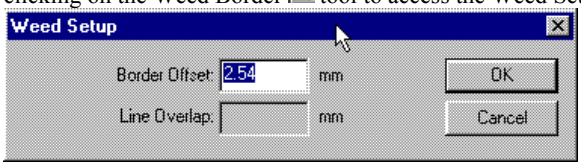


WEED BORDERS

- Select the Weed Border icon from the fly-out menu.

This automatically surrounds any selected object(s)with a Weed Border.

The Offset of the Weed Border from the edge of the graphic is user-definable in the General Preferences dialog box available from the EZ-Engrave Setup in the Options menu., or by right mouse clicking on the Weed Border tool to access the Weed Setup dialog box.



Border Offset

The Border Offset places the Weed Border the designated distance away from the outside edge of the selected object(s).

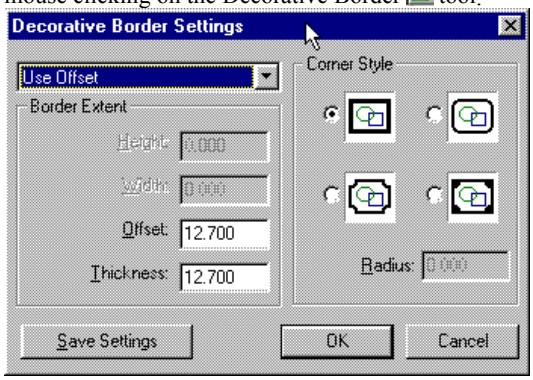
DECORATIVE BORDERS

EZ-Engrave provides the ability to apply a pre-defined frame or Decorative Border to selected elements of artwork.

- Select the Decorative Borders icon from the fly-out menu.

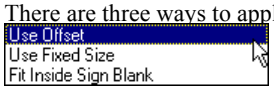
This will apply a decorative border to the outside of the selected object(s). If no object is selected the Decorative Border is applied to the Sign Blank.

The settings for the decorative border are set in the Decorative Border dialog box available by right mouse clicking on the Decorative Border tool.



Border Size

There are three ways to apply the size of the Decorative Border to artwork:



Use Offset

Use Offset applies the border with the Offset and Thickness values defined in the Border Extent box.

Use Fixed Size

Use Fixed Size applies the border with the Width, Height, and Thickness values defined in the Border Extent box. The border is centered on the objects selected on screen.

Fit Inside Sign Blank

Fit Inside Sign Blank applies the border with the Offset and Thickness values defined in the Border Extent box and forces the border to an outside dimension that fits along the edges of the Sign Blank.

Border Extent

The Border Extent section of the Decorative Border Setting is used to define the size of the Decorative Border.

Height and Width

The Height and Width boxes are used to define the size of the border when Use Fixed Size is selected in the Border Size scroll box.

Offset

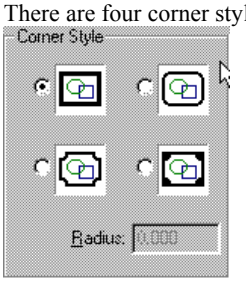
The Offset box is used to specify the size of the border by calculating an offset from the outer edges of the selected object(s). It is in effect only when Use Offset is selected in the Border Size scroll box.

Thickness

The Thickness setting specifies the width of the lines that make up the Decorative Border. This setting must always be positive (i.e., greater than zero).

Corner Styles

There are four corner styles to choose from:



 ..Square Corner .....

 ..Radial.....

 ...Reverse Radial .....

 ..Reverse Radial Filled.....

Radius

The Radius edit box is used to specify the radius of the round portion of the corner when you select any of the corner styles other than Square. The Radius represents the distance from the center of the circle from which the curve is drawn to the outer edge of the curve.

The Decorative Border dialog box is also available from the Layout menu. For more information see the section which deals with the Layout menu.

REGISTRATION MARK TOOLS

The Registration Mark tool and the Register Objects tool are also available from the Shapes tool fly-out menu,

These two icons allow for placement of registration marks on the screen, which can then be cut or printed with the on-screen objects to aid in registering the various color layers to produce a full-color lay up. The registration marks are identical to normal objects on the screen with the following exceptions:

- A registration mark can be selected with the Select tool but cannot be scaled;
- A registration mark will automatically be applied to all color layers and cannot be restricted to any one color layer;
- A registration mark cannot be operated on by the any of the options in the Layout, Edit or Arrange menus;
- A registration mark can be Deleted, Saved, and Exported as a regular object.

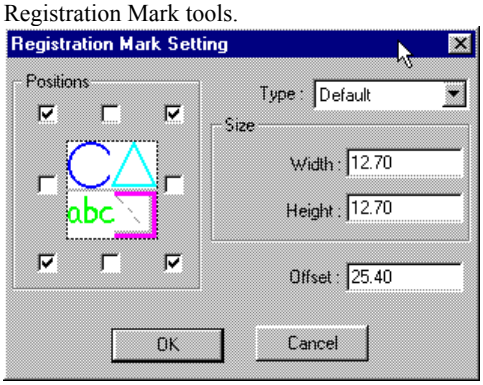
Drawing Registration Marks

The two icons on the fly-out menu, Registration Mark and Register Object(s), are used to place registration marks on any image in the view screen to assist in aligning the graphic elements during production.

- The Registration Mark tool places a predefined registration mark wherever a left-click occurs on the Sign Blank.
- The Register Object(s) tool places a predefined number of registration marks around the selected object(s). If no objects are selected no registration marks will be placed.

Setting Registration Marks

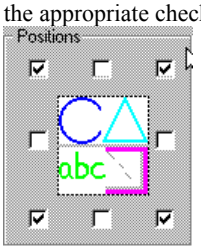
The Registration Mark Setting dialog box is available by right mouse clicking on either of the Registration Mark tools.



When selected, this option allows for specification of the size and pattern for the placement of the registration marks around any selected drawing.

Positions

As many as eight registration marks can be automatically placed using the Register Object(s) tool. To specify where on your selected graphics you would like to place registration marks simply click on the appropriate check boxes.



Type

There are four Registration Mark styles to choose from:

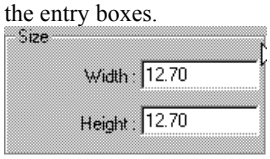

.....Default


..... Midas

 ..... Classic  .....Quick Classic

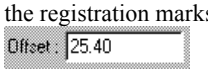
Size

The size of the Registration Marks can be set to a specific width and height measurement. Measurements units are determined by settings in the General Preferences. Enter the required values in the entry boxes.

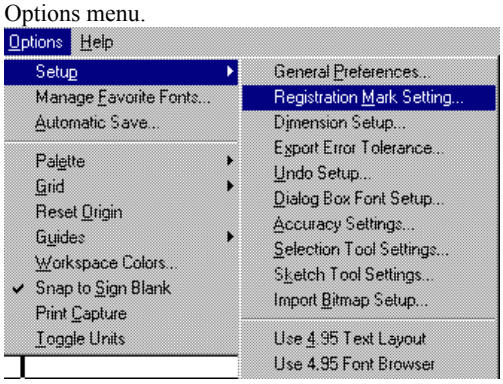


Offset

This setting specifies the distance between the outermost edges of the selected objects and the center of the registration marks.



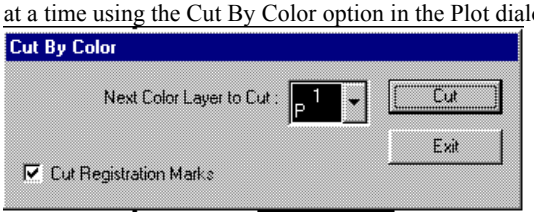
The Registration Mark Setting dialog box is also available from the EZ-Engrave Setup menu under the Options menu.



Cutting Registration Marks

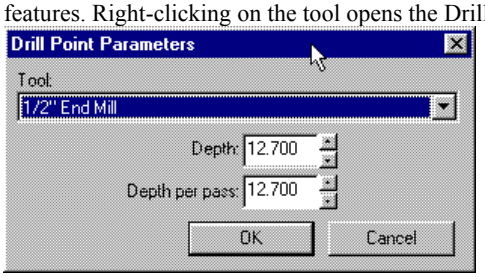
Because registration marks are placed on all layers that are used in an image, they become objects on each layer that can be cut or printed. Since it is not always desirable to cut or print the registration marks on each color layer, EZ-Engrave allows the user the option to either cut the registration marks or not as required.

A Cut Registration Marks option is offered to the operator when processing the image one color layer at a time using the Cut By Color option in the Plot dialog box of the Cut menu.



DRILL TOOL

The Drill tool , when selected places drill points where-ever left-clicks occur on the view-screen. Drill points are similar to registration marks but are specifically for the routing and engraving features. Right-clicking on the tool opens the Drill Point Parameters dialog box:



The default settings for the Tool, Depth, and Depth per pass, are the same as those set in the Plotter Setup and/or Depth Control dialog boxes. For more information about this tool refer to the routing and engraving sections of the Advanced Output chapter (10) of this manual.

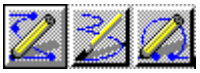
Drill point .....

GRAPHIC CREATION TOOLS

CREATING GRAPHIC ELEMENTS

This tool provides the ability to create graphics on the screen using the point and click method with the mouse or on-screen digitizing. This tool also provides the ability to create graphics by freehand tracing as well as to edit the shape of on-screen graphic or text images produced by other methods and other programs. Create French curves and poly-arcs using the Arc edit feature of the graphic creation tools.

- Click on the icon in the toolbox and the following fly-out menu appears.

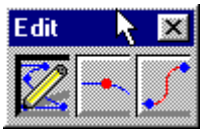


NODE EDIT TOOL

- Click on the Node Edit icon from fly-out menu to activate the Node Edit (on-screen digitizing) tool.

When activated, the tool is ready to begin the digitizing process.

When the Node Edit tool is selected, the Edit Toolbox appears on the view screen as follows:



This tool box contains:

- the On-screen Drawing Tool ,
- the Node Editing Tool , and
- the Segment Editing Tool .

The Node Edit tool can be used to manually trace a bitmap image on the view screen, a process known as On-Screen Digitizing.

The Node Edit tool also provides the ability to create new graphics by placing corner, curve, or tangent nodes to make up the outline of shapes.

Generating Original Artwork with the Point & Click Method

While the Node Edit tool is active, each time the mouse button is pressed, a node is placed under the cursor on the view screen. A contour is defined by the nodes placed and how they are joined together by straight lines or curves.

There are three node types in drawing mode: the corner node, the curve node and the tangent node. By default, the digitizing tool will place a corner node on the screen each time the mouse button is pressed. A straight line is drawn between any two adjacent corner nodes. Curved lines require at least three nodes, of which at least one other than the end nodes is a curve node. A tangent corner (a corner which flows smoothly from a straight line into a curve) requires three nodes as well, one of which must be a tangent node preceded by a corner node and followed by a curve node.

Node Palette

The Node Tool Palette provides the ability to change node types for drawing and editing, as well as perform other useful functions. To access this palette, place the cursor over a node and press the right mouse button.

The following tools appear (clockwise from top left):

- The Corner Node tool which changes the selected or next-drawn node(s) to a corner node;
- The Join tool which joins the two endpoints of a selected contour, or any two selected contour endpoints;
- The Curve Node tool which changes the selected or next-drawn node(s) to a curve node;
- The Set Start Point tool which provides the ability to specify the start point of the selected contour;
- The Tangent Node tool which changes the selected or next-drawn node(s) to a tangent node;
- The Break tool which breaks a given contour at the selected node;
- The Trash tool which deletes the selected node or nodes;
- The Clockwise/Counter-Clockwise button which provides the ability to toggle the direction of the selected contour.

Selecting from the Node Palette

To select one of the Node Palette options:

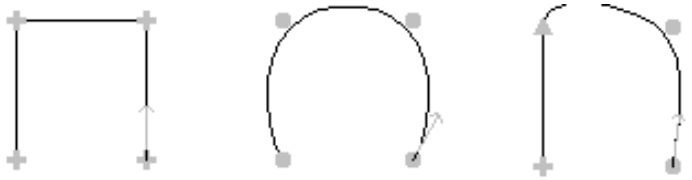
- Press the right mouse button to display the Node Tool Palette.
- Keeping the right mouse button depressed, move the cursor in the direction of the node type to select.

1 Display Node Palette

2. Select Node Type.

- Upon releasing the right mouse button, the new node type is selected, and will be placed at the location where the left mouse button is pressed next.

When using the Node Edit tool, consecutive corner nodes will be joined by straight line segments, a curve node preceded and followed by any other node will create a curved line segment, and a tangent node between a corner node and a curve node will result in a contour with a smooth transition between a line segment and an adjacent curve segment.



Corner nodes joined by straight lines

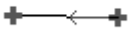
Curve nodes joined by curved lines.

Tangent nodes give smooth transitions from lines to curves

Drawing Straight Lines

By default, the digitizing tool is automatically activated when the graphics creation tool is first selected.

- Click on the Node Edit icon in the tool fly-out menu to activate the drawing tool.
- Move the pointer to the position on the screen that will be the starting point for the graphic and press the left mouse button. A corner node appears on screen.
- Move the pointer to the next position and press the mouse button again. A second corner node is placed on the screen and a straight line is drawn connecting the two nodes.



A directional arrow appears on this first line segment to designate the starting point of the line segment and the direction in which it is being drawn (this also affects the routting direction).

Ending a Line

To end a contour and begin to draw a new line or contour that is not connected to the first line, there are two options:

- close the contour being drawn, which causes the next node to begin a new contour; or
- in the case of an open contour, select the Node Edit tool from the Edit toolbox or tool palette, and then begin drawing the next contour.

All contours drawn within the same editing session will be related in that they will be part of the same path.

> ***Note***: To make a new contour that is not related to existing contours (i.e. – not on the same path as the existing contours), exit the drawing tool (select X in the tool palette), and re-select the Node Edit tool from the main toolbox to begin drawing a new contour on a new path.

Closing a Contour

EZ-Engrave makes certain assumptions when drawing a contour in order to speed the drawing process and to make it more intuitive. For example, if a new node is drawn within 6 pixels of the first node of the current contour, EZ-Engrave closes the contour.

The next time a node is placed on the view screen and the mouse is pressed, a new start point for a new contour is created. To place the two ends of an open contour within the 6 pixel limit without closing the contour, use the Zoom tool to zoom in on the end point and then position the last node. In the magnified view of the screen, the 6 pixel limit will allow for placement of the last node much closer to the beginning node without closing the contour.

Alternatively:

To close a contour where the last node placed on the screen is not near the beginning node, select the icon from the Node Palette and a new segment will be drawn automatically to join the last node to the first node and the contour will be closed.

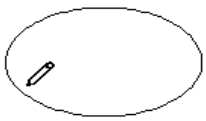
Ending a Contour

When a contour has been drawn and is to remain open, end the contour at the last node by selecting the icon from the pop-up tool palette, or by press the button in the drawing tool bar. The contour will end without closing.

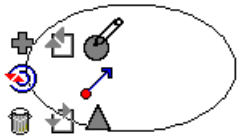
Drawing Curved Contours

Drawing with curves uses the same point and click technique as drawing with straight line segments except that the nodes placed at each mouse click will be curve nodes rather than corner nodes. To digitize with curve nodes rather than corner nodes, first change over to curve nodes on the pointer. To accomplish this:

- Move the pointer to the location where the beginning node is to be placed;
- Press and hold the right mouse button, the Node Palette appears around the pointer;
- While pressing the right mouse button, move the pointer over the curve icon to select it as the next node type;
- Release the right mouse button. Begin to place circle nodes around the object to draw.



1 Position pointer on location of first node.



2. Display Node Palette and select curve node icon.

Once the curve node type has been selected, subsequent clicks with the left mouse button will continue to place the curve nodes at each click until a different node type is selected from the Node Palette with the right mouse button. Each of the nodes left behind is joined by curved line segments.

Using Tangent Nodes to Join Line Segments to Curve Segments

The tangent node, designated by the tangent icon in the Node Palette, will make a smooth transition or tangent between a line segment and a curve segment.

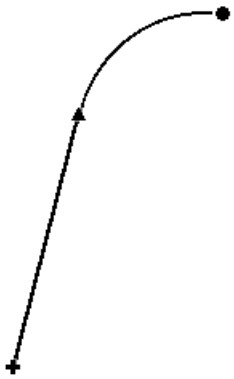
To demonstrate this effect:

- Draw a straight line between two corner nodes;
- Select a new point on the screen and press and hold the right mouse button;
- From the Node Palette, select the tangent icon and place a tangent node in the drawing on screen.

A straight line segment will join the tangent node to the previous corner node.

- Now, select a new point on the screen that is almost at a right angle to the last line segment on the screen;
- Using the right mouse button, select a curve node from the Node Palette.

A curve node will be placed on the screen and a curve will be drawn joining the curve node with the previous tangent node.



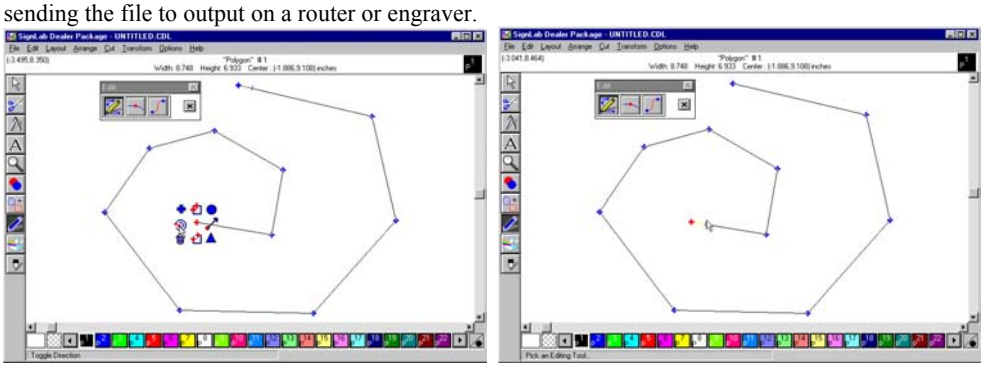
Notice that the transition from line to curve at the tangent node is smooth without any abrupt change in direction.

Adding on to an Existing Contour

When the Node Edit tool is active, add on to the end of an existing open contour by pressing [Shift + click on the node] at the open end of the contour, then continue to draw as normal.

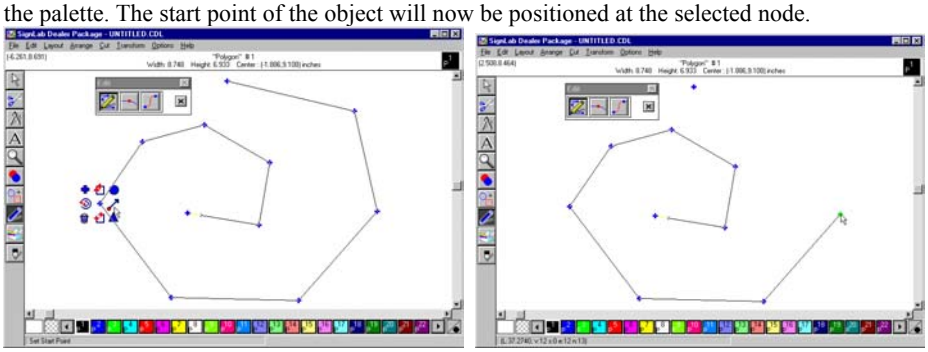
Changing the Orientation of a Contour

When the tool is active, change the orientation of the contour from clockwise to counter-clockwise. Click with the right mouse button and select the tool from the palette to toggle the direction of the contour from clockwise to counter-clockwise and back. This feature is particularly useful when sending the file to output on a router or engraver.



Moving the Start Point of a Contour

When the tool is active, move the start point of the selected contour. Move the cursor over the node selected to be the start point for the contour, click the right mouse button, and select the tool from the palette. The start point of the object will now be positioned at the selected node.



FREE EDIT TOOL

It is possible to sketch a drawing on the screen freehand in the same way as drawing on a piece of paper. To implement the freehand sketching tool:

- Select the Free Edit icon from the Edit tools fly-out menu;
- Move the pointer on the screen to the beginning position of the sketch and press and hold the left mouse button;
- With the button pressed, move the on-screen pointer to trace the object to draw.

As the pointer moves on screen, a line will be drawn behind it representing the trace being created.

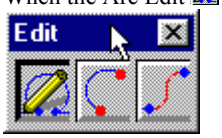
The freehand sketching mode is automatically implemented when using the Free Edit tool. Clicking and dragging the pointer across the screen will leave a trace behind on the screen following the path taken by the pointer.

ARC EDIT TOOL

- Click on the Arc Edit icon from fly-out menu to activate the Arc Edit (poly-arc) tool.

When activated, the tool is ready to begin the digitizing process.

When the Arc Edit tool is selected, the Arc Edit Toolbox appears on the view screen as follows:

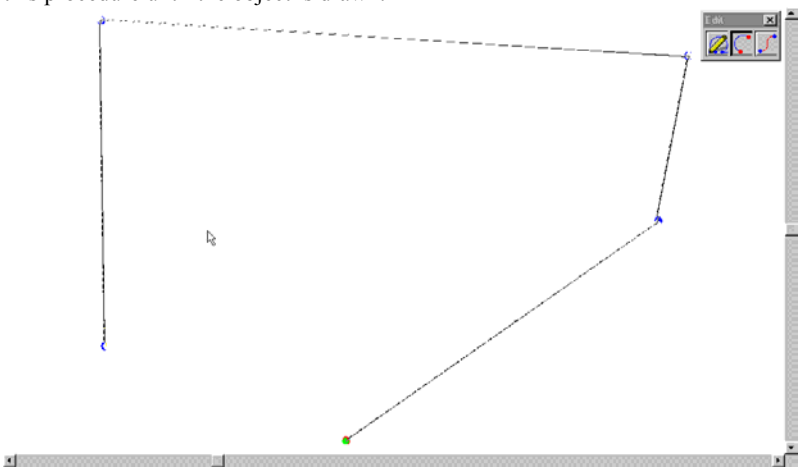


This tool box contains:

- the Arc Drawing Tool ,
- the Arc Editing Tool , and
- the Segment Editing Tool .

It is possible to create arcs and curves quickly and easily without having to incorporate the three node types. To implement the Arc Edit tool:

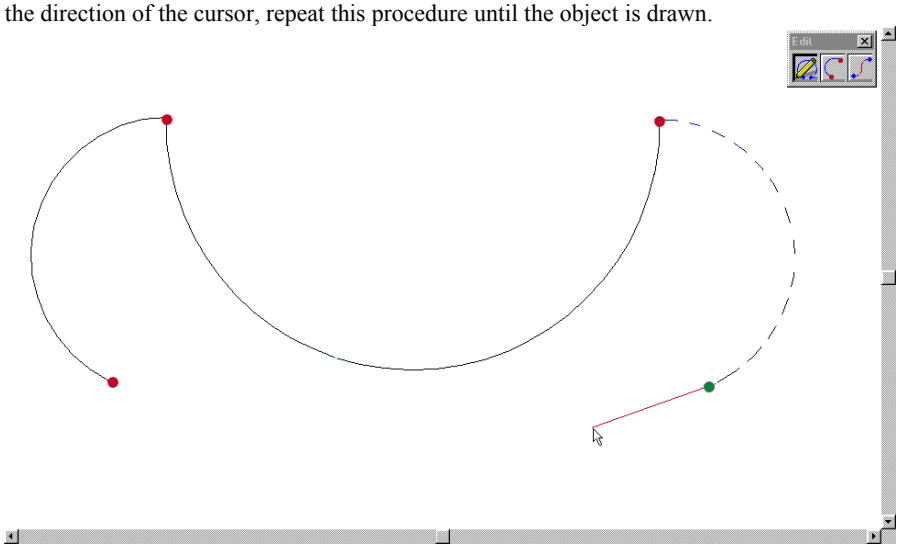
- Select the Arc Edit icon from the Edit tools fly-out menu;
- Move the pointer on the screen to the beginning position of the sketch and press the left mouse button;
- Move the on-screen pointer to the next position and press the left mouse button again, repeat this procedure until the object is drawn.



The graphic created is the same as those created using the Node Edit tool except that the nodes created are curve nodes, and the nodes cannot be changed to corner or tangent nodes. The curve nodes differ from those of the Node Edit tool in that they are poly-arcs, and therefore the arc on one side of the node can be adjusted without affecting the arc on the other side of the node. To draw an Arc using the Arc Edit tool:

- Select the Arc Edit icon from the Edit tools fly-out menu;
- Move the pointer on the screen to the beginning position of the sketch and press the left mouse button;

- Move the on-screen pointer to the next position and press the left mouse button again, while holding the button drag the cursor around the selected area and see how the arc is affected by the direction of the cursor, repeat this procedure until the object is drawn.



Node Palette

The Node Tool Palette available with Arc Edit does not provide the ability to change node types for drawing and editing. However it does provide access to the other tools in the Node. To access this palette, place the cursor over a node and press the right mouse button.

When Arc Edit is accessed from a node in a 3D path, there are Palette two new tools, the Bridge and Depth tools

For more information about the Bridge and Depth tools refer to the 3D section in the Advanced Output chapter. For more information about the other tools refer to the Node Edit section on the Node Palette.

ADVANCED SCANNING TOOLS

ADVANCED SCANNING TOOLS - INTRODUCTION

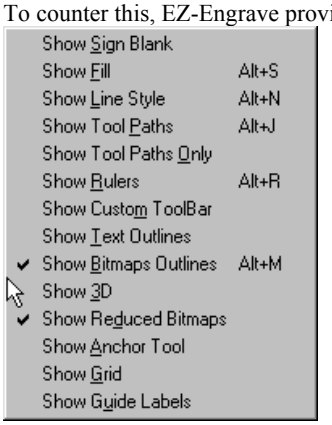
Three different tools are available with most EZ-Engrave packages. The Scanning tool is used to access: AccuScan; PhotoMachine.

AccuScan ..... The AccuScan module contains the tools that are required to convert black and white into line-traced drawings format that can be routed by EZ-Engrave.

PhotoMachine ..... The advanced PhotoMachine tool enables 3D routing and engraving using the 3D PhotoMachine module.

Show Bitmap Options

When working in EZ-Engrave, sometimes bitmaps do not redraw as quickly as other types of objects. To counter this, EZ-Engrave provides two options for working with bitmaps.



Show Bitmap Outlines

The Show Bitmap Outlines provides the ability to turn off the bitmap view, and show in its place a wire frame, or place holder. The Show Bitmap Outlines is found in the View menu. For the purposes of working with the Scanning tools, Roland recommends de-selecting this option, so that bitmaps will be shown in their entirety.

Show Reduced Bitmaps

The Show Reduced Bitmaps is a second option available in the View menu that can speed up refresh rates and save on time while working in the Scanning tools. For the purposes of working with the Scanning tools, Roland recommends selecting this option, so that bitmaps can be drawn and re-drawn quickly.

AccuScan

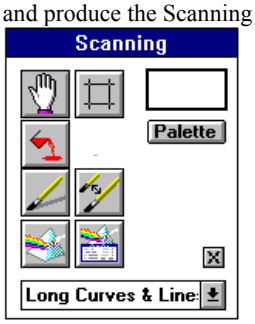
The AccuScan module contains the tools required to convert a monochrome bitmap into a line-traced drawing format that can be routed by EZ-Engrave. To take advantage of the advanced printing features

in EZ-Engrave, AccuScan also provides the tools necessary to manipulate bitmaps in their native format, and to combine them with other objects for printing.

Note: While any color can be selected for the foreground and background of a bitmap, this manual assumes that the foreground is black and that the background is white

Activating AccuScan

Once a bitmap is imported, simply select it and press the AccuScan tool button to start AccuScan. Alternatively, double-click on the bitmap to activate AccuScan. Either method will enable AccuScan, and produce the Scanning control panel.



Note: Only one bitmap can be selected to activate AccuScan. Attempting to activate AccuScan with more than one or no bitmap selected, will have no effect.

Selection Tools

When AccuScan is activated there are five different tools available from the Select tool in the tool bar. These tools are designed to help define those areas to scan, and each one is different from the others. However, they all have certain functions in common, including the way they work and the modifier keys that control them.

In an effort to be consistent throughout the tracing process, all tools function in accordance with a common set of general rules, as follows:

- Using any selection tool while pressing the shift key adds new objects or areas to the list of selected items. Select an area, and then Shift-select another area — the new area is added to the old to define the selected area. This is similar to the function of the Select tool in EZ-Engrave, with which several items can be selected by holding down the shift key while clicking on them.
- Using any selection tool while pressing the control key subtracts new objects or areas from the list of selected items. Select an area, and then Control-select another area, the new area is removed from the old to define the selected area, objects or colors.
- When used without modifier keys, each selection tool selects only the current item, de-selecting all others. Select one object or area, and then select another without using modifier keys, the previous selection is released, and the new selection becomes the only selection. This is similar to the Select functions in the main EZ-Engrave screen, clicking on one object selects it and de-selects all others.

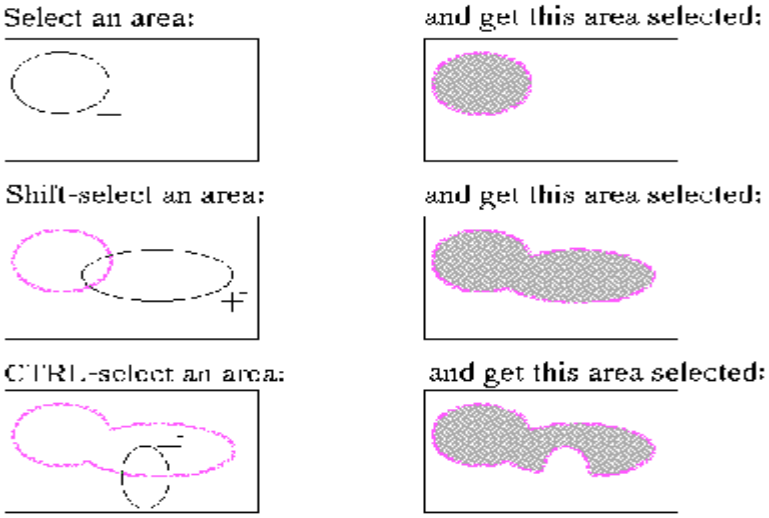
Click Select Tool

This tool functions in the same manner as the Select tool available in EZ-Engrave all the time. For the purposes of scanning, its function is to select or de-select bitmaps.

Oval Area Tool

The Oval Area tool is an area selection tool, that is used to define areas in a bitmap to scan. This tool is used to select regions that are circular, ellipse, or oval in shape. Like the circular drawing tool in EZ-Engrave, drag the circular area to include in the scan.

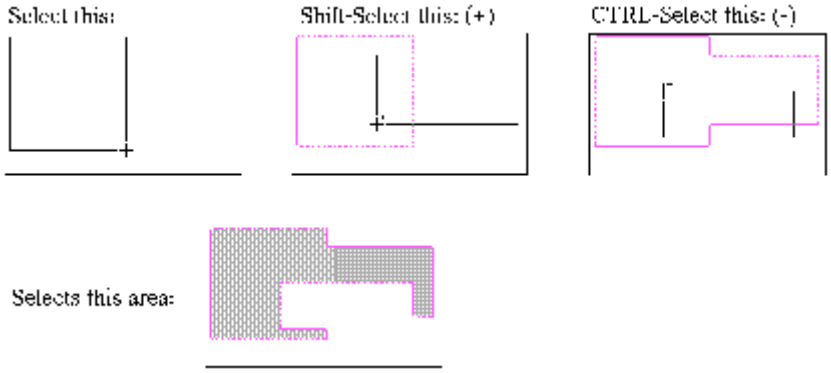
The modifier keys also function with this tool. For example:



Note: The gray shown in these drawings was added to show more clearly the selected area. Selected areas won't be grayed like this.

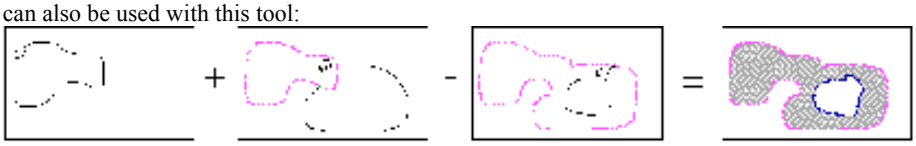
Rectangular Area Tool (The Square Tool)

The Rectangular Area tool is an area selection tool. As the name implies, it is used to select rectangular areas of the bitmap. Using the modifier keys allows for multiple selections of shapes:



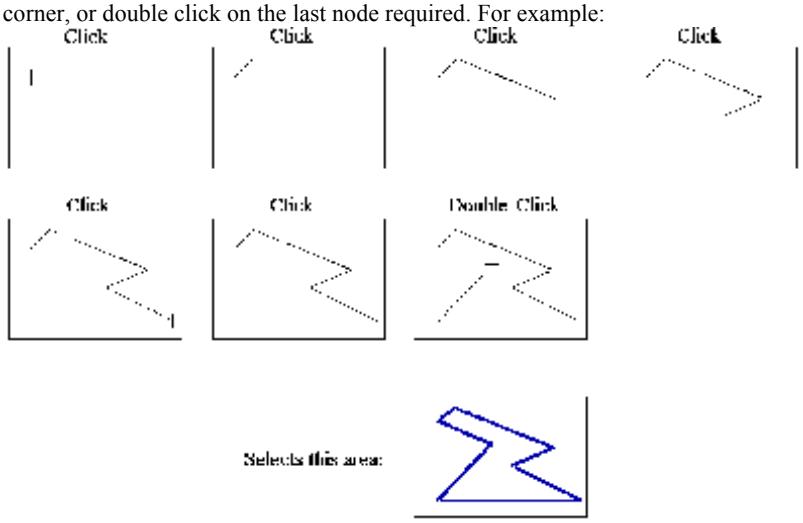
Freehand Area Tool

The Freehand Area tool allows for freehand drawing an area on a bitmap to be traced. To operate this tool, press and hold the left mouse button, and trace around the area to select. The modifier keys can also be used with this tool:



Polygon Area Tool

The Polygon Area tool is used to select areas that have an irregular shape. Click on the bitmap to specify the corner points of the area to trace. To close the polygon, either click again near the first corner, or double click on the last node required. For example:



Manipulation Tools

There are several tools available within AccuScan to manipulate a bitmap, to prepare it for either routing or printing.

Copy Tool

 The Copy tool may be used to accomplish one of two tasks, use it to move a selected area to another position within the bitmap, or use it to copy a selected area to another position.

Copy A Selection

To copy a selected area, simply define the area to copy using the Select tools and click on the Copy tool button. The selection may now be dragged to another position within the bitmap.

Move A Selection

To move a selection, define the area to be moved, click on the Copy button and then drag the selection to its new location while holding the Control key. The area vacated by the selection will be filled with the target color from the Color Palette.

Crop Tool

 This tool is used to remove all of the bitmap except the selected area or areas. To use this tool, simply select the desired area with the select tool and click on the crop tool.

Flood Tool

 This tool is used to flood fill (change the color of all pixels) a selected area with the target color. To use this tool:

- Select a target color from the palette of the bitmap (press the Palette button to toggle between black and white).
- Select the area to be flooded using the selection tools
- Press the Flood button

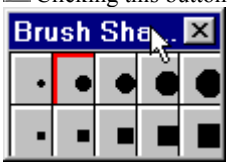
The entire selected area will take on the Target Color.

Paintbrush Tool

 This tool is used to add paint lines to the bitmap. To draw on the bitmap, select the Paintbrush tool, and then click and drag lines onto the bitmap using the mouse. There are several brush shapes available, any of which may be selected by clicking on the Brush Shape button. The color selected as the Target color is used for the Paintbrush tool.

Brush Shape Button

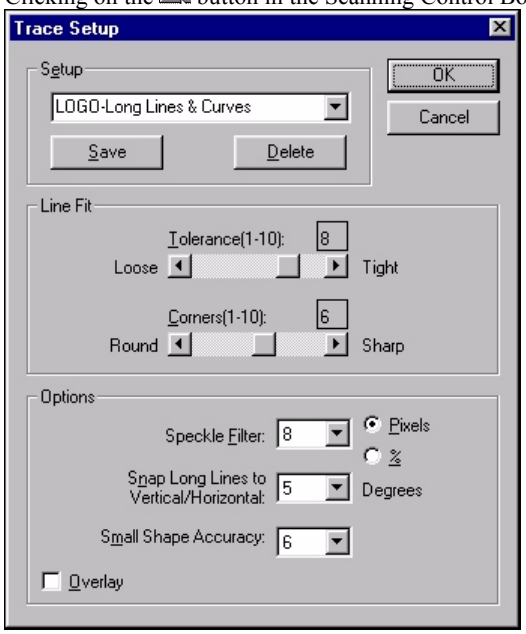
 Clicking this button produces the Brush Shape palette.



Use this palette to choose the shape for drawing with the Paintbrush tool. Draw with a round brush using one of five thickness', or a square brush, again with one of five widths. The available thickness' for the round brush shapes are 1, 3, 5, 9, and 11 pixels wide. For the square brush shape, chose from widths of 3, 5, 7, 9, and 11 pixels wide. The selected shape and size will be highlighted with a red outline.

Trace Setup Dialog Box

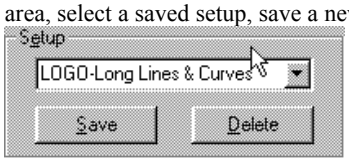
Clicking on the  button in the Scanning Control Box produces the Trace Setup Dialog Box.



This dialog box offers several types of control that determine the final output of the scan. These control types are: Setup, Line Fit, and Tracing Options

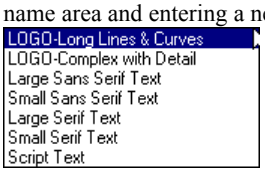
Setup

This section of the dialog box is used to manage configuration files for AccuScan. From within this area, select a saved setup, save a new or modified setup, or delete a saved setup.



Name List Box

This box displays the name of the current setup. To select a new setup, click on the scroll arrow, and then select the desired setup from the list. Give a new setup a name in this box by sweep-selecting the name area and entering a new name.



Save Button

Use the Trace Setup dialog box to create setups to save for later use. The Save button is used to store these setups on the hard drive. To save a setup, sweep-select the name in the list box, enter a new name, and press the Save button. The newly selected setup now appears in the saved selection setup box.

> ***Note:*** Descriptive names for the setups allow for easy identification of a setup being appropriate for a given type of bitmap.

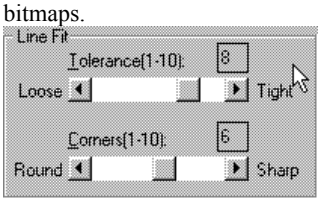
Delete Button

In addition to saving setups for AccuScan, delete those setups that no longer have value, by using the delete button. To delete a setup from the list, select the desired setup from the Name list box, and press the Delete button.

> ***Note:*** Once a setting is deleted, it is irretrievably gone, and cannot be recovered. Caution should be exercised when deleting any previously-saved scanning setups.

Line Fit Section

The Line Fit Section controls how AccuScan follows the edges of scanned artwork. This is particularly important, since appropriate settings in this section can produce a high-quality trace from poor quality bitmaps.



Specifically, the Line Fit settings govern how closely AccuScan will follow the edge of the objects in a bitmap by varying the line Tolerance and Corner recognition capabilities of the tracing function.

Tolerance

The Tolerance setting specifies how closely AccuScan follows the edges of an object in a bitmap. A loose setting will approximate an object's shape rather loosely, while a tight setting will follow the edge very precisely.

Tolerance should be set tight (7 or greater) if a bitmap is very detailed and accurate. This allows for all of the fine detail to be traced. In general, the higher the detail, the higher the Tolerance setting.

The Tolerance should be set loose (three or less) if a bitmap contains long smooth edges, or if it is of poor quality. This results in AccuScan ignoring small errors in the edges of the objects, but can also result in a loss of the finer details.

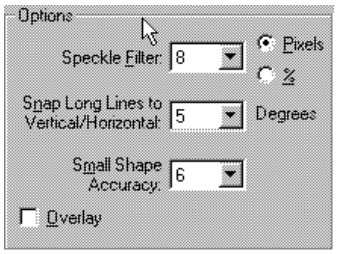
Corners

The Corner setting controls AccuScan's corner recognition ability. AccuScan uses this setting to determine which parts of a trace represent a corner, and which parts represent a tight curve.

If a bitmap contains sharp corners, and is mostly angular, set Corners to sharp (7 or greater). If it is mostly curves, set Corners to loose (3 or less). Moderate settings (4 to 6) work best with a mix of corners and curves.

Tracing Options

This section of the AccuScan dialog box sets some general rules about how a bitmap is to be scanned.



Speckle Filter

Many bitmaps contain undesirable bits of dirt. These random spots of color usually appear due to a scratched or dirty scanner bed. The Speckle Filter allows for removal of these specks and creation of a cleaner finished product.

The speckle filter sets the threshold at which AccuScan recognizes a group of pixels as an object. Once the filter is set, an object must be larger than the set value in order to be traced during a scan. For example, if the Speckle Filter setting is four pixels, then objects must be five pixels or larger in order to be recognized as a true object, and therefore scanned.

The filter can be set by specifying the minimum number of pixels, or it may be specified as a percentage of the overall bitmap size. The percentage specification tends to be a much more coarse unit of measurement than the pixel specification, and is most useful when dealing with particularly large or dirty artwork.

> ***Note:*** While higher Speckle Filter settings result in fewer extraneous objects being traced, it may also result in the loss of smaller objects. Exercise caution when choosing an appropriate filter setting.

Snap Long Lines to Vertical/Horizontal

When a photo is placed on a scanner bed, it is difficult to place the image perfectly straight on the scanner bed. The Snap Long Lines to Vertical/Horizontal setting provides a method to account for picture placement.

The Snap Long Lines to Vertical/Horizontal option allows for a threshold angle to be set, below which all lines will be made vertical or horizontal. For example, setting the snap angle to 5 results in any straight line 5 degrees or less off vertical/horizontal being made vertical/horizontal.

A setting of less than 10 is usually best when using the Snap Long Lines to Vertical/Horizontal option. Higher settings result in noticeable distortion in the final output.

> ***Note:*** If a higher snap angle is required, there are two other options: re-scan the original picture; or use no snap angle and rotate the artwork after tracing.

Small Shape Accuracy

Small Shape Accuracy allows for application of Line Fit settings to each object in a bitmap relative to its size, by scaling those specifications to match the size of the object. For example, for a given Tolerance setting, a single pixel on the side of an otherwise smooth edge of a large object might be seen as dirt, and ignored, while the same pixel in a smaller object will be recognized as detail, and included in the trace. This provides the ability to vary Line Fit parameters to automatically account for differences in object size in a bitmap.

In order for Small Shape Accuracy to function most effectively, assess the relative size differences between the largest objects in a bitmap and the very small ones. Where the difference is large, the Small Shape Accuracy should be set high (7-10). Where the objects are fairly similar in size, the Small Shape Accuracy should be set low (Off-3).

Overlay

The Overlay button allows either the default Traditional Scanning style or the Overlay Scanning style to be selected.

Traditional Scanning Style

The Traditional scanning style has two characteristics that set it apart from the Overlay style: it treats each object individually when tracing; and it recognizes objects inside other objects as being made up of both a smaller object and a hole within the larger object. For example:

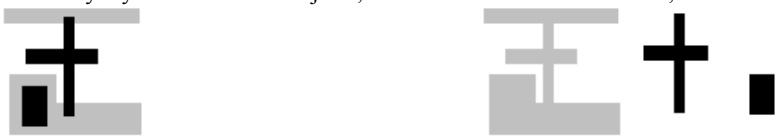
Given this bitmap; The Traditional Style scan would yield these parts;

Overlay Scanning Style

The Overlay scanning style creates a complete mask for each of the colors in a bitmap as it calculates the size and shape of the bitmap objects. The order that the color masks are placed on top of one another is dictated by the order of the colors in the Palette dialog box, such that the first color in the palette (upper left plate) is traced first and placed on the bottom, the second-row left plate is traced second, and so on.

The result of an Overlay scan has two characteristic features: where two or more objects of the same color are connected by other objects of different colors, the two objects are recognized by the software as a single object; and objects within other objects are seen as being on top of the objects rather than inside them, this means that there are no holes in the bottom object. For example:

An Overlay-style scan of these objects; Renders these results;



Note: This result differs from the Traditional trace in that the gray layer is one complete object that encompasses all of the gray areas and the bridge between them that was originally black. Note also that it is generated for placement underneath the black layer.

The advantages of an Overlay scan are:

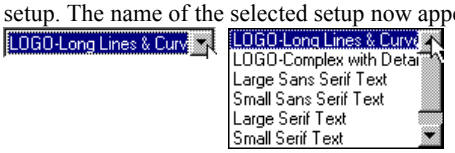
- It typically results in simpler shapes, and
- The resulting objects will have no overlap areas when the sign is routed and laid out.

The disadvantage is that much larger objects are typically created (e.g. , vs.).

Note: Since the order of the objects is governed by the order of colors in the Palette dialog box, be aware of the fact that (and, in the case of an Overlay-style trace, should) the colors can be sorted according to their usage in the bitmap, so that the most often-used colors are on the bottom, and the least-used are on top. This sorting function is available through the Re-Order button in the Palette dialog box.

Setup Selection Scroll Box

The setup selection scroll box is located directly below the buttons. This box provides quick access to setups defined previously through the Trace Setup dialog box. The current setup name is shown in this list box. To select a different previously-saved setup, click on the scroll arrow, and select the desired setup. The name of the selected setup now appears in the Setup Selection scroll box.



Vectorizing With AccuScan

Once AccuScan is set up and the area to be scanned defined, return to the Scanning Control dialog box, and press the Scan button . AccuScan traces the selected area of the bitmap, or the entire bitmap if no specific areas are selected, according to the parameters set in the Trace Setup dialog box.

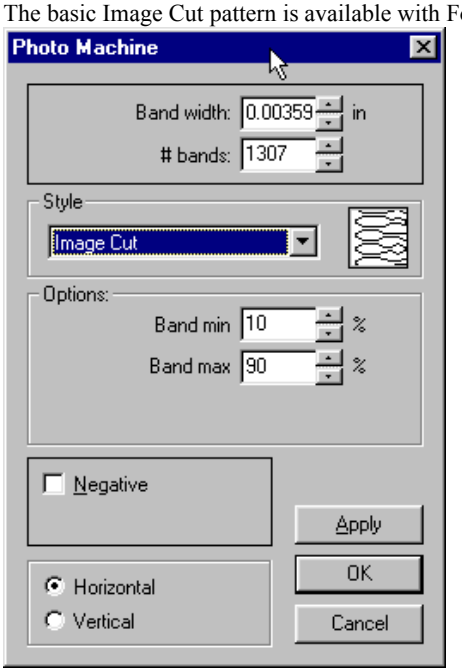
PHOTOMACHINE TOOL

The PhotoMachine module contains the tools that are required to convert a bitmap into a line-traced drawing format that can be cut, routed, or engraved by EZ-Engrave.

PhotoMachine

With PhotoMachine cut, route or engrave drawings using fill patterns.

The basic Image Cut pattern is available with Foundation,



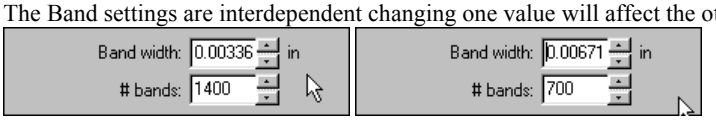
ImageCut Settings

ImageCut traces the selected objects(s) and creates a pattern of bands, where the lighter portions of the object(s) are banded with thin lines and the darker portions are banded with thick lines. ImageCut is for use strictly with cutters.

Several of the settings within PhotoMachine can be adjusted to alter the banding effects using ImageCut.

Band Settings

The Band settings are interdependent changing one value will affect the other.



Bandwidth

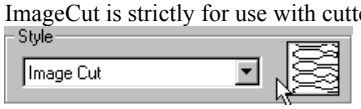
This option alters the maximum band width. Increasing the Bandwidth decreases the total number of bands applied.

Number of Bands

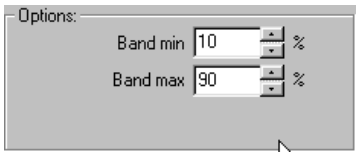
Set the total number of bands to be applied to the object(s). Increasing the Number of Bands decreases the maximum band width.

Style

With Foundation the PhotoMachine dialog box contains one choice only in the Style list, ImageCut. ImageCut is strictly for use with cutters.



Options



Band Minimum

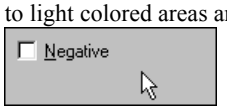
Set a minimum width for the bands, in percentage values. Lower the Band Minimum value and the bands for light colored areas are made more narrow. If the Band Minimum value is too low, weeding the vinyl will be difficult as the strips of vinyl will be too thin to handle easily.

Band Maximum

Set a maximum width for the bands, in percentage value. Raise the Band Maximum value and the bands for dark colored areas are made wider. If the Band Maximum is made too wide, weeding the vinyl will be difficult as there will be almost no space between bands.

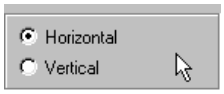
Negative

When the Negative check box is turned on, the banding effect is reversed (i.e., wide bands are applied to light colored areas and thin bands are applied to dark colored areas).



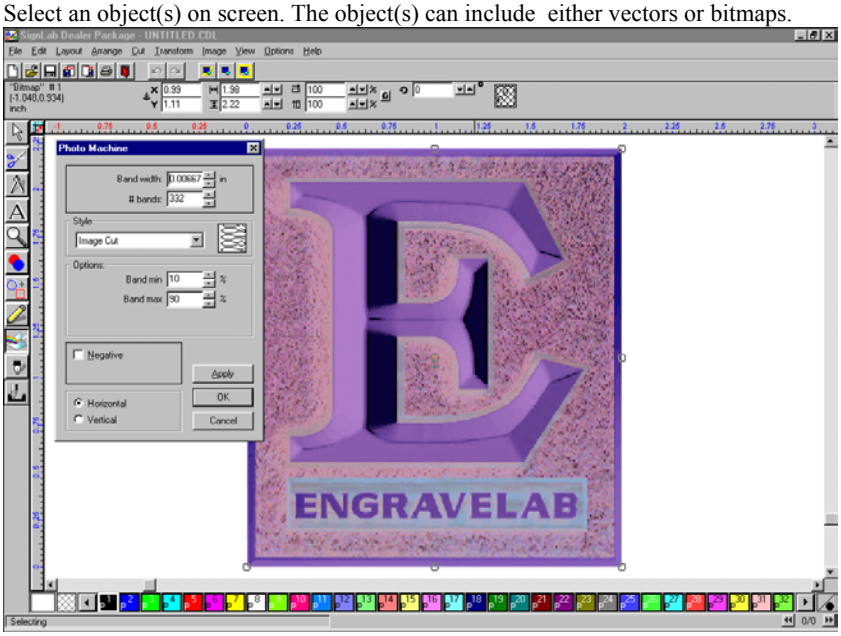
Orientation

The Orientation options are output device dependent. Check your cutter manual regarding how the device relays the X and Y axes. In order to maintain a good quality cut use the option that uses less movement of the cutter, generally the option to choose is vertical.

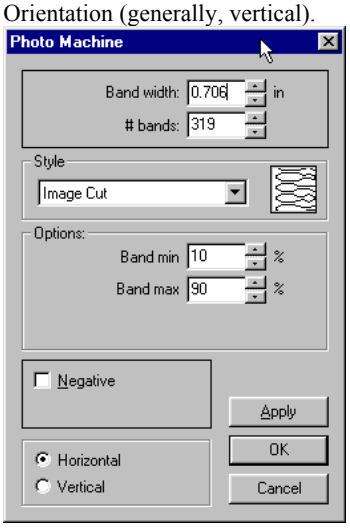


Using ImageCut

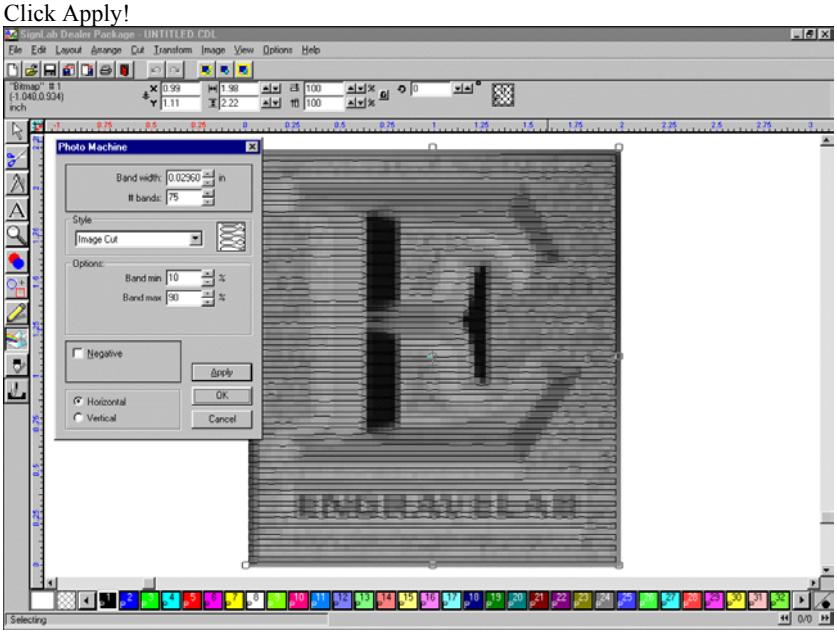
- Select an object(s) on screen. The object(s) can include either vectors or bitmaps.



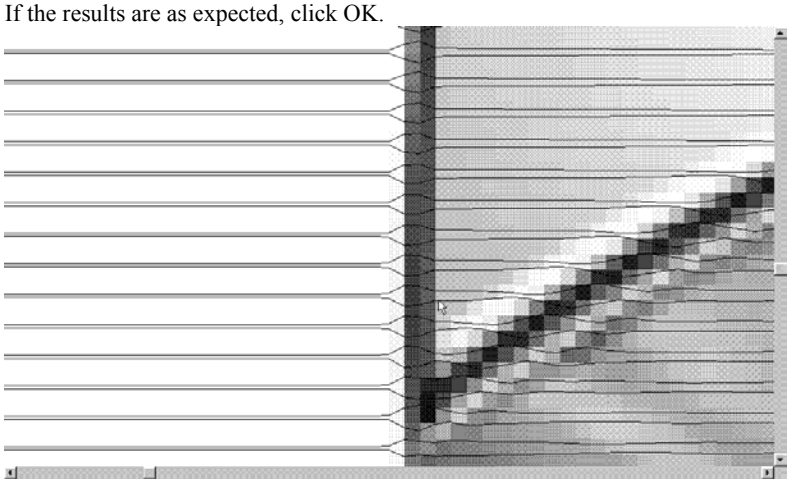
- Choose the PhotoMachine tool from the tool bar.
- PhotoMachine automatically converts any vector based object(s) into bitmap images.
- Adjust the following settings to suit the requirements:
  Band Width / Number of Bands
  Band Minimum;
  Band Maximum;
  Negative (to achieve a reverse effect);
  Orientation (generally, vertical).



- Click Apply!



- If the results are as expected, click OK.



Thin bands have been applied to light areas while thick bands have been applied to dark areas.

AccuScan Tool 

If you have purchased EZ-Engrave Pro, Pro Plus, or Pro Print the AccuScan Tool will be available. Refer to Chapter 8 — Advanced Scanning Tools, in this manual for detailed information on the different bitmap editing options that are available with EZ-Engrave and its modules. The AccuScan  tool is used to access four different tools:

AccuScan .....  The AccuScan module contains the tools that are required to convert a black and white or gray scale bitmaps into a line-traced drawing format that can be cut by EZ-Engrave..

PhotoMachine .....  The advanced PhotoMachine tool enables 3D routing and engraving using the 3D PhotoMachine module.

CenterLine Trace .....  The CenterLine Trace module contains the tools that are required to convert a bitmap into a centerline-traced drawing format that can be cut, routed, or engraved by EZ-Engrave. The CenterLine Trace module will be activated if you have purchased the appropriate password from Roland or a EZ-Engrave re-seller.

3D Centerline..... .....  The 3D Centerline module contains the tools that are required to convert a bitmap into a 3D line-traced drawing format that can be routed by EZ-Engrave. 3D Centerline was designed for use with the new 3D routing machines. The 3D Centerline module will be activated if you have purchased the appropriate password from Roland or a EZ-Engrave re-seller.

STROKE AND FILL TOOLS

The Stroke and Fill tool icon in Foundation is used to access the Line Style tool.

LINE STYLE TOOL

The Line Style tool is used to apply a “thick line” effect around any selected object in the Editing Window.

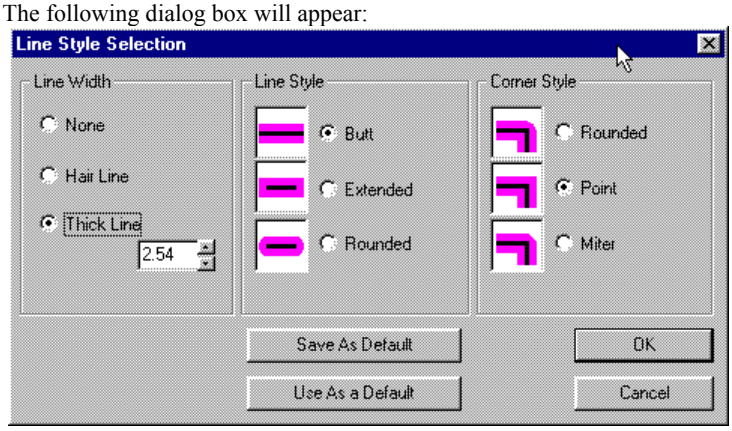
> ***Note***: Refer to Welding Tools, in this chapter for more detailed information on the different editing options available using the Line Style tool.

The Line Style tool is located in the main toolbox to the left of the EZ-Engrave main view screen. The tool is used to apply a “thick line” effect around any selected object in the Editing Window.

To apply a “thick line” effect to a contour or group of contours:

- Select the contour(s) to be given a “thick line”.
- Click on the Line Style tool, in the main toolbox.

The following dialog box will appear:



Line Width

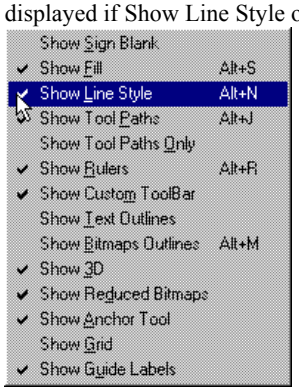
None

Select the None option in the dialog box, and any Line Style currently applied to the selected contour(s) will be removed.

Hair Line

Select the Hair Line option in the dialog box, to apply a 1 pixel wide line to the edge of the selected contour(s). This Hair Line can be in any color selected from the Color Palette, and will only be

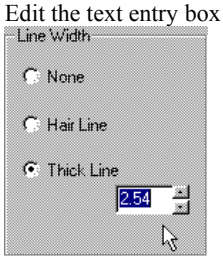
displayed if Show Line Style option is selected in the View… menu.



Thick Line

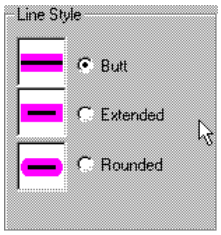
The Thick Line option applies Thick Lines around an image greater than 1 pixel in width. The Thick Line is superimposed on top of the contour line, and can be any color selected from the Color Palette.

- Click on the Thick Lines button in the dialog box to select this option.
- Edit the text entry box from the keyboard to specify the thickness of the line required.



The thick line will only be displayed if Show Line Style option is selected in the View… menu. Apply a thick line to an open contour or to a closed contour. An open contour is one which does not define a closed path (i.e., a straight line is an open contour, a circle is a closed contour).

Line Style

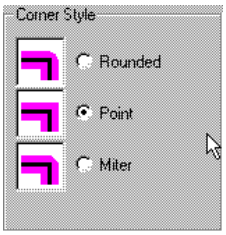


Three different styles of "Line Styles" can be select between:

- Selecting the icon provides a "butt" line ending;
- Selecting the icon provides a "square" line ending; and
- Selecting the icon provides a "round" line ending.

Any open contour will be displayed as a thick line that ends in the line style selected from among the three options above.

End Style



Three end styles of "Line Styles" can chosen to determine the corner styles:

- Selecting the icon provides lines with round corners;
- Selecting the icon provides lines with pointed corners; and
- Selecting the icon provides lines with mitered corners.

Any closed or open contour will be displayed as a thick line with end style selected from among the three options above.

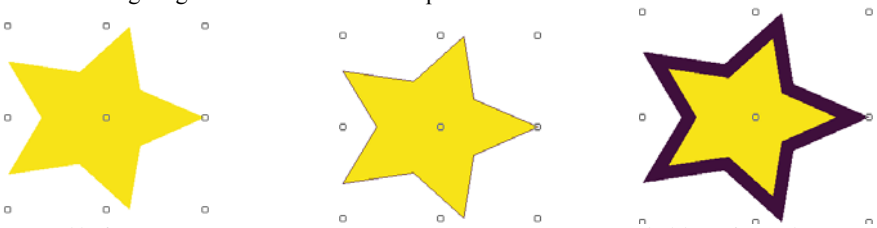
Save As Default

Click on this option to save the existing Line Style settings in the dialog box as default settings for use on other contours.

Use As A Default

Click on this option for the existing Line Style settings established in the Line Style dialog box to be applied to all new objects created in the EZ-Engrave view-screen using the Shapes tool, the Text Compose tool, or the Graphics Creation tool.

The following diagrams show various examples of contours with "thick lines":



Line Width of 'None' *'Hair Line'* *'Thick line' of 0.1 inches*

Applying Color to a Thick Line

The color plate that is selected when the Line Style tool is accessed will be applied to any thick line that is created. Right mouse selecting a color plate in the palette will apply the selected color to the thick line.

Line/Fill Selector Icon

At the far right side of the normal Color Palette is the Line/Fill selector icon.

The Line/Fill selector icon is used to select either the fill inside a contour or any thick line applied to the contour. Assign color to the fill inside a closed contour without affecting the properties of any Line Style attribute that may have been applied to the contour line and vice versa.

Repeated clicking on the Line/Fill Selector Icon will toggle alternatively between the Fill mode and Line Style mode.

Changing the mode of the Line/Fill selector also changes the Left/Right mouse selection of colors.

- With the Line/Fill selector in the default position, the right mouse selection of a color plate changes the thick line color;
- With the Line/Fill selector in the reverse position, the right mouse selection of a color plate changes the Fill color.

Using the Line/Fill Selector Icon

Changing the Color of the Fill inside a contour

The Line/Fill selector icon has two modes of operation, the Fill mode and the Line Style mode. When the Line/Fill selector icon shows a solid filled circle, it is in the Fill mode.

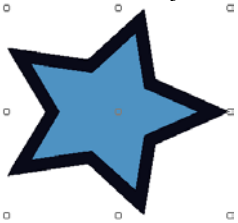
In this mode, any time an object is selected and then a color from the Color Palette, the color of the fill of that object is changed to the selected color.

Changing the Color of a Thick Line

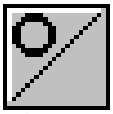
Click on the Line/Fill Selector icon to change it to show an outlined circle ( ). This signifies that it is now in Line Style mode.

When in this mode, select a target color for the Line Style feature. In addition, if an object is selected before selecting the Line Style target color, this object's Line Style attribute will be assigned the selected color, whether a thick line is applied to the object or not.

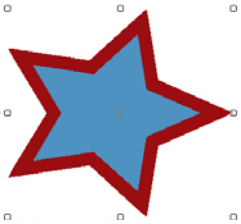
Select any object while the icon is in the Line Style mode, and only the Line Style attribute of the contour is selected, not the fill associated with the contour. Once the thick line has been selected, selecting a new color from the color palette will change only that thick line's color, and not the color of the selected object's fill.



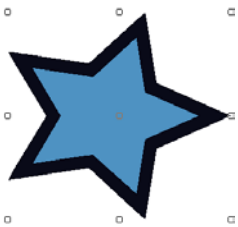
Box with Black Thick Line



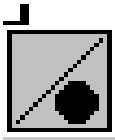
Selector in Line mode



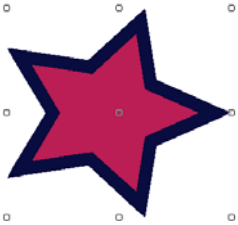
Thick Line color changes while Fill is not affected



Box with Black Thick Line



Selector in Fill mode



Fill color changes while Thick Line is not affected

In the top right corner of the Status Bar, a color indicator will display the color is being assigned to the thick line, and the color that is being assigned to the fill for any selected object.

Cutting Thick Lines

Thick lines are attributes of an object rather than an actual object, just as the color blue is an attribute, and not an object. As a result, thick lines must be handled in a special way to cut them.

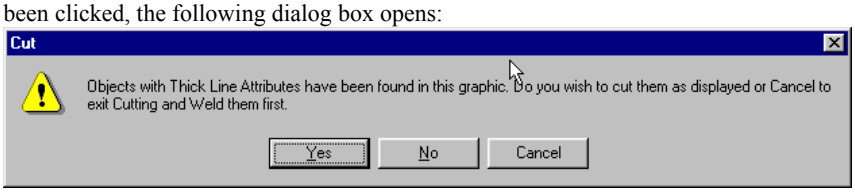
NOTE: A Hair Line can't be cut, as it has no thickness but is only a line stroke.

Any thick line applied to an object is superimposed on top of the original contour. This means that the original contour is obscured somewhat by the thick line as long as Show thick lines is on in the Options menu.

There are two options when cutting this graphic:

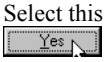
- An image can be cut so that the thick line is cut as an object while preserving the shape of the original contour underneath the thick line; or
- An image can be cut as it appears on the screen, so that the thick line is cut as an object while the original contour is processed so that only that portion not obscured by the thick line is cut.

Objects that include thick lines to be cut are processed in the normal fashion in the Plot dialog box with one exception. Once the Cut options have been set in the Plot dialog box and the OK button has been clicked, the following dialog box opens:



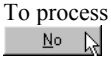
Yes

Select this option if to cut the thick lines without diminishing the size of the original contour.



No

To process the graphic through the cutter and ignore the thick lines altogether, select this option.



Cancel

To cut the thick lines as they appear on screen, and also to cut the objects as they appear on screen (i.e., diminish the size of the original objects such that they are not overlapped by the thick line, but rather butt into them)select this option.

Once welded, a thick line is no longer an attribute of any other object, but rather becomes an object itself which can be edited, colored, and can even have a thick line applied.

GRADIENT FILLS TOOL 

With EZ-Engrave Pro or any of the more inclusive packages available for EZ-Engrave, the Stroke and Fills  tool is used to access two different tools.

 The Gradient Fills is not available for Foundation, assistant, or Expert.

The Gradient Fills tool opens the Attribute Manager application, a 32-bit plug-in for EZ-Engrave. With Attribute Manager use gradient or bitmap fill patterns for vector object(s). Edit the fills to create new fill patterns, or edit existing default patterns to apply to object(s) in EZ-Engrave.

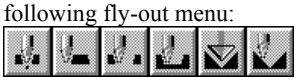
Gradient and bitmap fill patterns can be applied to any vector object in EZ-Engrave, that can then be edited, cut, routed using 3D PhotoMachine or 3D Centerline, or printed using PrismPrint.

> ***Note***: Refer to Chapter 6 — Fills, in this manual for detailed information on the gradient and bitmap fill editing options available with EZ-Engrave and its modules.

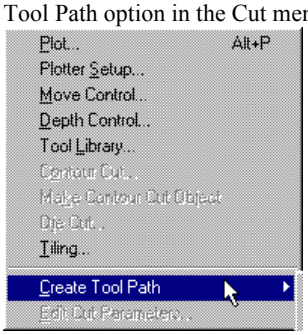
TOOL PATH TOOLS

CREATE TOOL PATHS FOR ROUTING AND ENGRAVING

The Tool Path tool is used to access all the Tool Path Creation tools, selecting this tool opens the following fly-out menu:



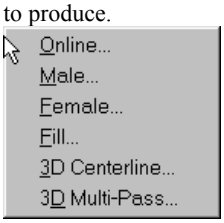
Used specifically for routing and engraving requirements, these tools are also accessed via the Create Tool Path option in the Cut menu.



Create Tool Paths

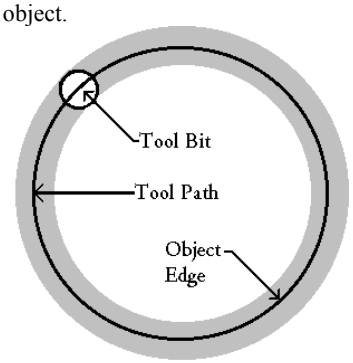
> ***Note:*** This section deals with EZ-Engrave's ability to fill objects using the cutting head on the router or engraver, or the thick pen on the plotter. This section makes the assumption that the Routing module is installed, and all of the features available for this type of work are included. If the Routing module is not installed, but the Engraving or Banner-making modules are running most of the features described in this section will be available, except for those sections dealing with the depth of cut and certain Tool Diameter functions.

The Routing Fill Control dialog boxes are used to apply a rout or tool path to selected objects. They can be accessed by selecting a Tool Path option from the Create Tool Path fly-out menu available in the Cut menu. The Routing Fill options are: Online; Male; Female; Fill; 3D Centerline; and 3D Multi-Pass. These options apply to the Tool Offset from the contour, this specification defines the type of cut to produce.

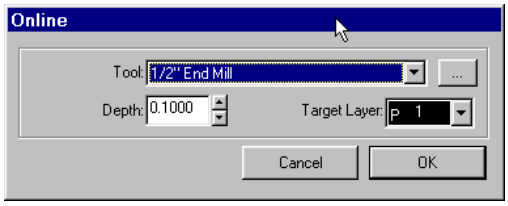


Online

Selecting this option will result in a cut where the tool path is the same as the outside edge of the object.



The resulting cut will have an offset of "0" (i.e., no offset) and will be centered on the edge of the original object. This offset is often used to trace objects in artwork without filling the objects themselves.



Tool

Use this option to set the default tool bit or the felt-tipped marker usually used in the plotter. As a rule, set this to the largest bit or marker to be used in the work.

Depth

This selection box sets the current Rout Path to a specific depth. Rout Paths rely on this value for depth information, so each path generated must be assigned a depth for Routing.

Tool Library Button

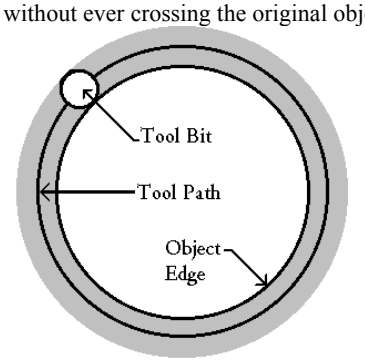
The Tool Library button opens the Tool Library dialog box, explained earlier in this chapter.

Target Layer

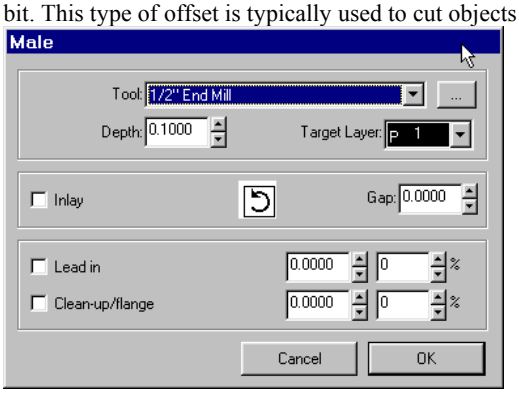
This selection box sends the current Rout Path to a specific color layer. Assign each path generated to a different layer for Routing.

Male

Selection of this option will generate a tool path which cuts around the outside of a given object without ever crossing the original object's edge.



The tool path will fall to the outside of the artwork with an offset equal to one half the width of the tool bit. This type of offset is typically used to cut objects out of a piece of material.



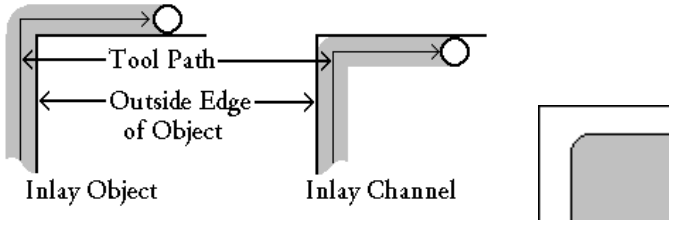
Tool, Depth, Tool Library Button, Target Layer

See the explanations for theses options in the previous pages documenting the Online style of fill.

Inlay

Because of their round shape, the bits used for routing and engraving will run into problems when cutting corners. Specifically, the bits can cut around the outside of a corner very effectively, but will always leave the inside of corners rounded, because the round shape of the bit will not fit entirely into the square space of the corner.

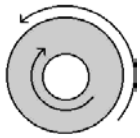
When doing inlay work, round corners are definitely a concern. The problem becomes apparent when trying to fit inlay pieces into their routed channels. For any given object, the channel cut's inside corners will be an outside corner on the fill piece being cut, and vice versa. This means that every corner the router can bring to a point has a piece that is round to fit.



Resolve this problem by selecting Inlay. This will cause the router to cut all corners in an identically rounded fashion, so that all of the inlay pieces will fit into their routed channels.

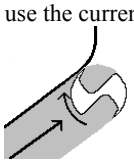
Clockwise / Counter-Clockwise

Selecting this option will toggle the direction of the tracing of the outside edge of all objects from clockwise to counter-clockwise, without regard for the direction they were originally produced. Contours inside contours will be traced in an opposite direction to the outer contour.



The proper use of this setting will ensure that outside edges are cut with both the tool bit and the tool path facing the cut. This will produce a clean, smooth-edged cut.

EZ-Engrave uses defaults based on the type of offset being used. Since routers and engravers rotate clockwise, an Female offset will result in all outside edges being cut in an counter-clockwise fashion, while an Male offset will cut outer edges clockwise. An Online offset has no default direction, but will use the current setting.



Gap

The gap value is the space between the male and female pieces. A larger value produces a looser fit.

Lead In

Selecting this option will cause EZ-Engrave to generate a Lead In for the tool path. A Lead In is an additional portion added to the start of the tool path which begins away from the edge of the object being cut. This additional path prevents any distortions to the edge of the object caused by the movement of the router bit while it is plunging into the material.

The shape and position of the Lead In is governed by the following rules:

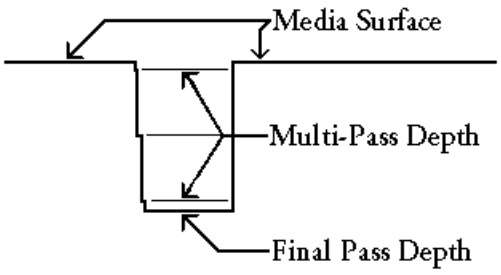
- Lead Ins are only applied to those paths which define the edge of the object being routed (i.e., they are not applied to fill strokes in a rout job)
- When performing an outside rout, the Lead In will be added from the outside of the object
- When performing an inside rout, the Lead In occurs inside the object
- If the first contour of the edge cut of the object is a straight line, the Lead In will also be straight
- If the first contour of the edge cut of the object is a curve, the lead in will be curved
- If a Lead In is specified but will not fit within a given object, or will not fit without making contact with any other object to be routed, the Lead In will not occur

Note: When a Lead In is specified, the Bridge function is disabled.

Clean Up/Flange

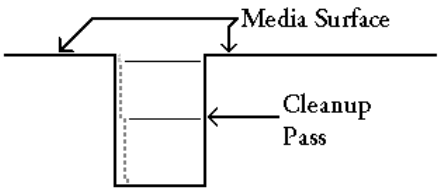
When cutting an object to a deep final depth, multiple passes can be used (i.e., several cut passes at varying depth settings) to avoid burning the material or bit, to make sure that the corners of the cut objects are sharp, and to speed the cutting process.

However, multiple passes can often leave a "stepped" appearance to the finished object as a result of a progressively dulled bit, or minute shifts in the media.



A Secondary Clean-up Pass will help you avoid this result. Selecting a Secondary Clean-up Pass will cause the router to trace once more around the edge of the cut object with the bit at full depth, leaving

a smooth surface on the inside of the cut.



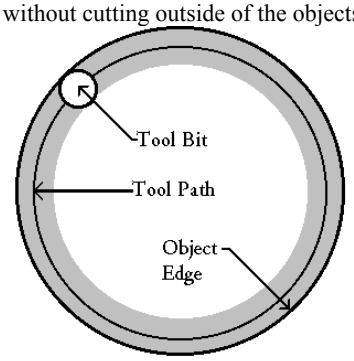
Specify the offset for the clean-up pass in the edit box. Specifying a positive value will cause the tool bit to cut along a path nearer to the object being cut than the regular tool path.

Flange

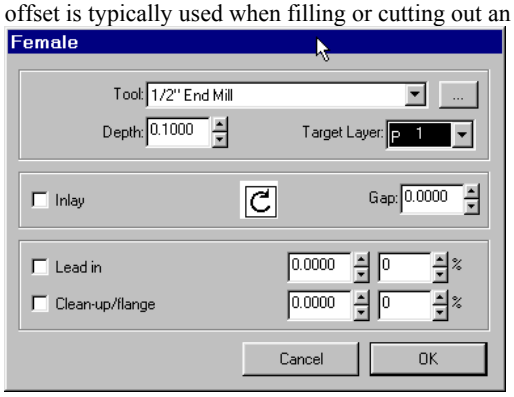
Selecting Flange will cause the clean-up pass to cut closer to the object for female paths and farther away from the object for male paths.

Female

This option will cause the outside edge of the tool bit to trace the edge of the artwork from the inside, without cutting outside of the objects. The



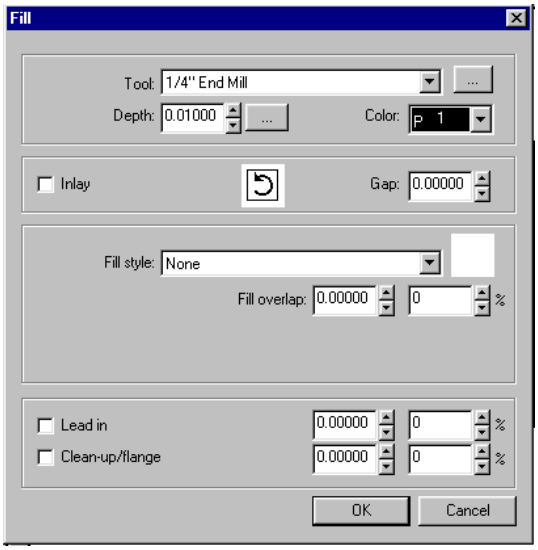
Tool Path will fall inside of the artwork with an offset equal to one half the width of the tool bit. This offset is typically used when filling or cutting out an object.



See the explanations for all the options available with the Female style of fill in the previous pages documenting the Male style of fill.

Fill

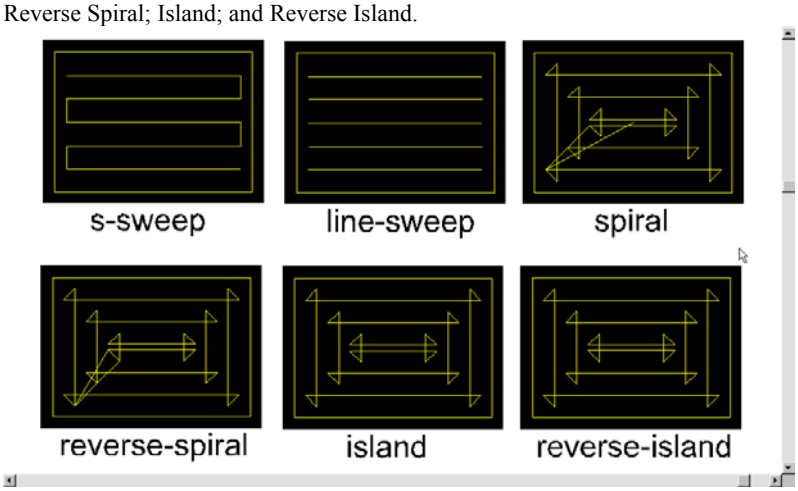
Under some circumstances, a custom tool offset should be specified. The offset is applied to the path generated by the Online setting (i.e., “0” will result in a cut equal to the Online setting) with negative values placing the path inside a given contour, and positive values placing the path outside. The required offset can be specified as either a percentage of the tool bit width or as an absolute value in the current unit of measurement.



Tool, Depth, Tool Library Button, Color, Inlay, Rotation, Gap, Lead In, Clean-up/Flange: See the explanations for all of the options available in the Fill style in the previous pages documenting the Male style of fill.

Fill Style

From the Fill Style scroll menu select from seven fill styles: None, S-sweep; Line-sweep; Spiral; Reverse Spiral; Island; and Reverse Island.



None

As the name implies, there is no Fill Style, which means that objects will have their edges traced, but will not be filled.

S-Sweep

This fill will generate a Line Sweep-like fill pattern except that the line paths are joined wherever possible.

This fill is generated very quickly by EZ-Engrave, and it decreases the number of lift and drop movements required by the routing machine, thereby reducing the amount of time required to produce a given job.

Line-Sweep

This style will generate a fill of separate and discrete fill lines.

This fill pattern is designed for those machines which have a very short maximum path length, and therefore require short fill paths. A disadvantage with this style is that the cutting head lifts and drops for each fill path, increasing the amount of time required to fill given object.

Spiral

This fill pattern will trace around the edge of a given object and then cut the object's fill on the same path.

This fill style is a fairly traditional one which reduces the cutter's lift and drop-type movements. However, it may not be suitable for those machines requiring shorter tool paths or machines which use a floating nose cone to control depth.

Reverse Spiral

This fill style will begin in the middle of a given object and spiral outward until it traces the edge of the object.

Because it will cut from the inside of an object to the outside, a reverse spiral fill is well-suited to those machines which use a floating nose cone to control depth. It also has the property of always cutting the edge of objects last, which can result in a cleaner edge cut.

Island

This fill style is similar to Spiral, except that it generates discreet paths beginning at the edge of the object and working in towards the center.

Use this fill style to create a Spiral-like fill if the routing machine does not support long tool paths. This style generates a tool lift and drop for each of the islands generated, and is therefore slower than a Spiral Fill.

Reverse Island

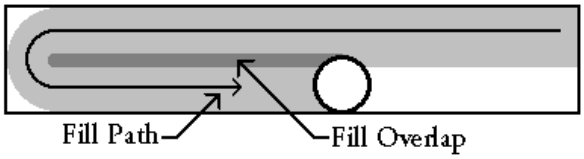
Reverse Island fill is very similar to Reverse Spiral, except that it cuts from the center out in progressively larger paths.

This style is ideally-suited to cutting with a machine that requires short tool paths, and is fitted with a floating nose cone. It will also ensure that edges of objects are cut last, this will result in a cleaner, smoother cut. A tool lift and drop is generated for each of the islands generated.

Fill Overlap

Fill Overlap is the amount that each successive tool path should overlap each previous path. The Fill Overlap is applied only when an object is being filled (i.e., *not* when only tracing an object).

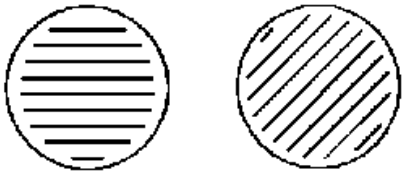
It is important to have tool paths overlap to ensure that the cut has a smooth, even fill with no residual material left uncut between fill paths.



Specify the fill overlap as either a percentage of the tool diameter, or as an absolute measurement.

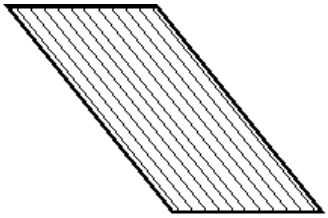
Fill Angle

This portion of the dialog box is to specify the angle of fill strokes when filling objects. The angle is defined relative to the X-axis (horizontal).



Fill Angle 0° *Fill Angle 45°*

Specify a Fill Angle when cutting artwork that leans in a specific direction. Proper setting of the Fill Angle can result in substantially reduced production time.



COLOR PALETTE

WORKING WITH COLOR PALETTES

The Color Palette situated along the bottom edge of the screen is used to segregate the graphics into different colors that can then be cut or manipulated separately from other colors.

The colors may be scrolled left or right by clicking on the Scroll Arrows at either end of the palette.

Each color plate has a number that can be displayed on the plate by selecting the Layers On / Off option in the General Preferences dialog box of the Options… Setup… menus.

PRIORITY OF COLORS IN THE PALETTE

The order of the colors in the Color Palette is very important as they control the default order in which objects on the screen will be cut.

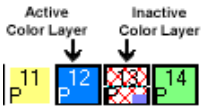
When using the Cut by Color option while cutting from the Plot dialog box, the objects colored with colors to the left will, by default, always be cut before objects assigned colors to the right. That is, objects assigned the color from plate number 4 will cut before objects assigned the color in plate number 5 or any other number greater than 5.

The tools and menu commands will only be implemented for objects in active color layers.

ACTIVE AND INACTIVE COLORS

Colors can be de-activated to make them temporarily unavailable. When de-activated, objects of the inactive color cannot be selected, deleted, moved, or otherwise edited.

Active color plates and objects assigned to that color will appear on the screen in solid outlines and solid fills. Inactive color plates will be cross-hatched rather than filled with a uniform color, and objects in inactive color plates will show on the screen in broken outlines with no fills.



De-Activate an Active Layer

Active layers can be de-activated by clicking on the appropriate color plate while holding down the [Control] key.

Activate an Inactive Layer

To re-activate an inactive color, simply click on the appropriate color plate while holding down the [Control] key. The objects in that color will now be shown in solid lines on the screen and the color plate for that color layer will be uniformly filled.

Activating and De-activating Multiple Layers

Sometimes, it is required to isolate one object or group of objects from all others so that they may be quickly selected and worked with, without affecting any of the other objects on-screen. This can be accomplished by de-activating all colors except those which contain the desired object or objects.

To selectively activate one layer and de-activate all other layers:

- Press the [Alt] key while clicking on the desired color plate in the palette.

All colors will become inactive with the exception of the color selected.

To re-activate all colors de-activated with the previous command:

- Click on the active color plate while pressing the [Alt] key.

All layers will be returned to their active state.

ASSIGNING A COLOR LAYER TO AN OBJECT

The color assigned to a given object can be changed at any time. Simply select the object or objects to be assigned a different color, and click on the required color plate in the palette. The object(s) will now be assigned that color, and will be redrawn accordingly.

Line/Fill Selector Icon 

At the far right side of the normal Color Palette is the Line/Fill selector icon. 

The Line/Fill selector icon is used to select either the fill inside a contour or any thick line applied to the contour. Assign color to the fill inside a closed contour without affecting the properties of any Line Style attribute that may have been applied to the contour line and vice versa.

Repeated clicking on the Line/Fill Selector Icon will toggle alternatively between the Fill mode and Line Style mode. Changing the mode of the Line/Fill selector also changes the Left/Right mouse selection of colors.

- With the Line/Fill selector in the default position  , the right mouse selection of a color plate changes the thick line color;
- With the Line/Fill selector in the reverse position  , the right mouse selection of a color plate changes the Fill color.

Using the Line/Fill Selector Icon

Changing the Color of the Fill inside a contour

The Line/Fill selector icon has two modes of operation, the Fill mode and the Line Style mode. When the Line/Fill selector icon shows a solid filled circle, it is in the Fill mode.

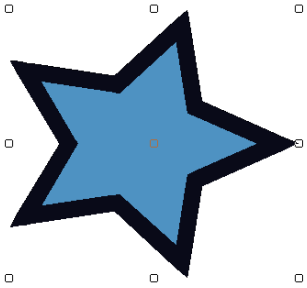
In this mode, any time an object and then a color from the Color Palette is selected, the color of the fill of that object will change to the selected color.

Changing the Color of a Thick Line

Click on the Line/Fill Selector icon, to change it to show an outlined circle ( ). This signifies that it is now in Line Style mode.

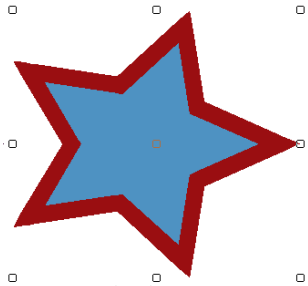
When in this mode, select a target color for the Line Style feature. In addition, if an object is selected before selecting the thick line target color, this object's Line Style attribute will be assigned the selected color, whether a thick line has been applied to the object or not.

When you select any object while the icon is in the Line Style mode, you will be selecting only the Line Style attribute of the contour, not the fill associated with the contour. Once the thick line has been selected, selecting a new color from the color palette will change only that thick line 's color, and not the color of the selected object's fill.

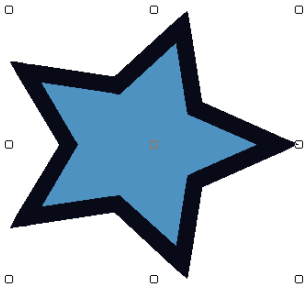


*Box with Black **Thick Line***

Selector in Line mode

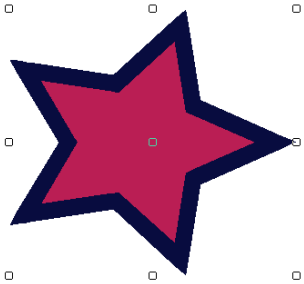


***Thick Line** color changes while Fill is not affected*



Box with Black Thick Line

Selector in Fill mode

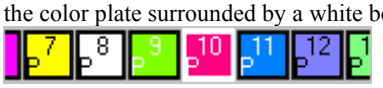


Fill color changes while Thick Line is not affected

In the top right corner of the Status Bar, a color indicator will display the color is being assigned to the thick line, and the color that is being assigned to the fill for any selected object.

TARGET COLOR

One color must be designated as the Target Color. The Target Color is indicated in the Color Palette as the color plate surrounded by a white border.



The significance of the Target color is that any new objects created or imported into the view screen will always be assigned to the Target Color by default unless it contains other layer information to the contrary. This means that any .DXF and .PLT files imported into the view screen, weed borders, rectangles and circles made with the tool, text made with the tool, and graphics created with the tool will be created in the Target Color automatically (imported .CDL and .EPS files will contain their own layer information which will over-ride the Target Layer default).

CHANGING THE COLOR PALETTE

Change the Order in the Color Palette

The order of the colors in the color palette is significant, particularly when using the Cut By Color feature available for EZ-Engrave. This is because objects will be cut by default in the order in which their colors appear in the palette.

To change the order of a color:

- Click on the color plate to be moved, and drag it left or right to its new position in the hierarchy.

All the colors to the right of its new position will change their layer number to reflect their new position in the hierarchy.

Changing the Background Color

The sign blank background may be assigned a specific color in the palette. To assign the background to a specific color:

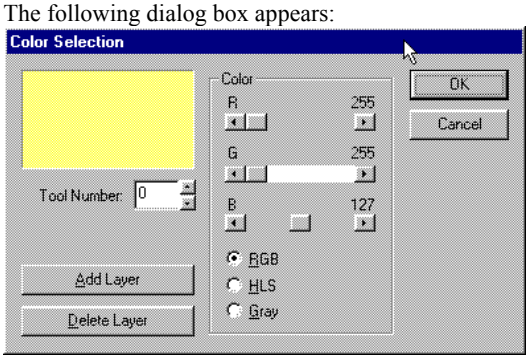
- Click on the color plate corresponding to the color for the background screen color;
- Drag the color plate to the single plate location which is to the left of the left hand side Scroll Arrow. The background will change to the new color.

Adding New Color to the Color Palette

To add a new color:

- Position the cursor on the Color Palette where the new color is to appear;
- Double-click on the plate.

The following dialog box appears:



There are three ways of allocating color in the dialog box:

- RGB (red, green and blue)
- HLS (hue, lightness and saturation)
- GRAY (gray scales only)

Mix the color as required by adjusting the color controls. The color being mixed at any time is shown in the dialog box.

Once satisfied with the color mix, select Add Layer. The new color plate will appear in the Color Palette where selected and the number originally in that plate will be assigned to the new color. All colors to the right will have their color number index to a higher number.

There is always one color plate left blank which can be used to add a new color. This blank plate is located at the right hand end of the Color Palette. This blank plate can be used to add a new color without disturbing the color priority of the existing colors.

Changing an Existing Color

To change the color of an existing color plate:

- Double-click on the color to be changed to bring up the Color dialog box;
- Mix the new color for the selected color plate;
- Select the OK button from the dialog box.

The new color will now appear in the selected plate. All the other color plates will retain their original plate numbers and priority.

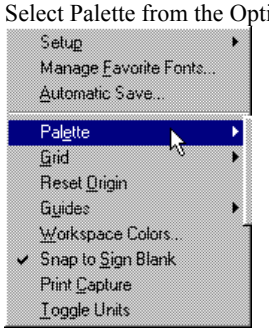
Tool Number

This setting provides the ability to specify a different tool for each color where multiple tools are supported by the plotter. For example, certain plotters allow plotting with two or more different pens at the same time. To take advantage of this fact, assign different tool numbers to the different colors plates.

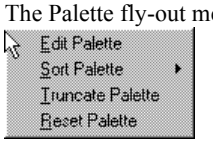
CHANGING THE PALETTE

As well as editing a color or color palette, the palette in use can be changed, or, create new palettes.

- Select Palette from the Options menu;



- The Palette fly-out menu appears.

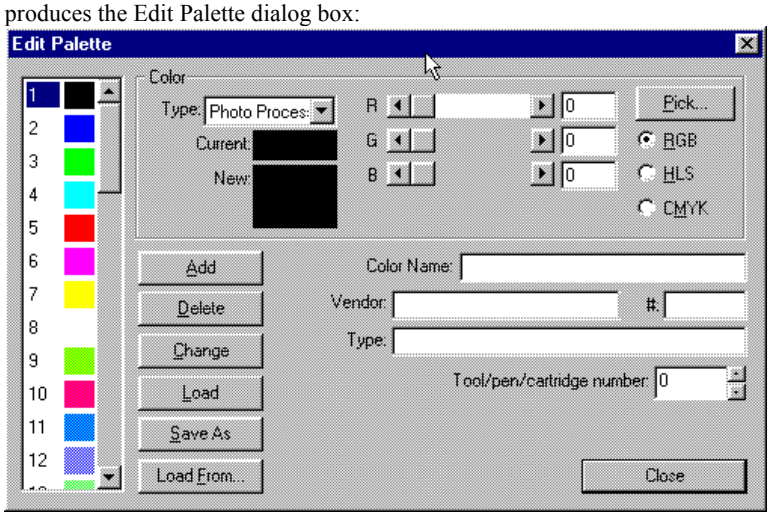


Palette Menu

This menu provides the means by which palettes can be managed, both the currently active palette in EZ-Engrave and those previously saved.

Edit Palette

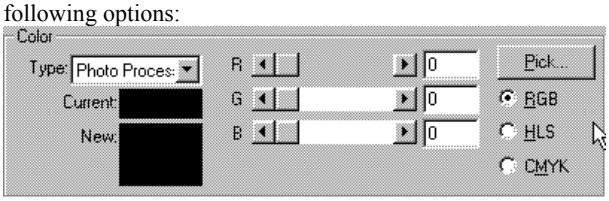
The Edit Palette option provides the ability to generate a new palette for use with EZ-Engrave. It produces the Edit Palette dialog box:



The scrolling box along the left side of this dialog box contains a graphical list of all of the colors currently in the palette. The other sections of this box are used to generate new plates for the palette.

Color Box

This section of the box provides the ability to specify a new color to add to the palette, and offers the following options:



Type

Offers the choice to use one of four color processing options:

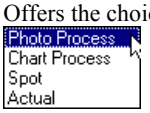


Photo Process ..... Applies full color calibration with changes to hue, lightness, and saturation.

Chart Process ..... Applies ink level changes only to the printed output.

Spot ..... Allows for multiple-pass printing using custom color cartridges.

Actual ..... Prints exactly the color and ink levels called for by the color plate.

Current

Displays the currently selected color (the target color).

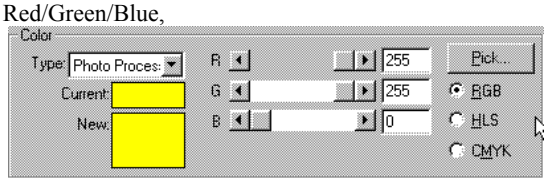
New

Displays the new color as it currently appears. This box changes as color are adjusted.

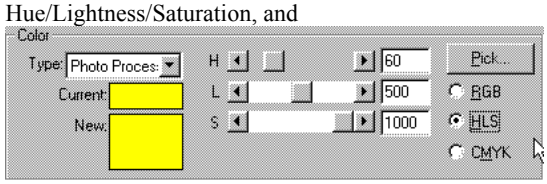
Color Sliders and Scales

Color can be adjusted using one of three scales by selecting the appropriate radio button, and then moving the relative slider:

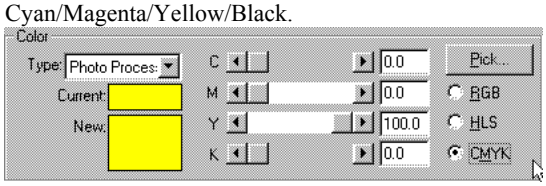
RGD Red/Green/Blue,



HLS Hue/Lightness/Saturation, and

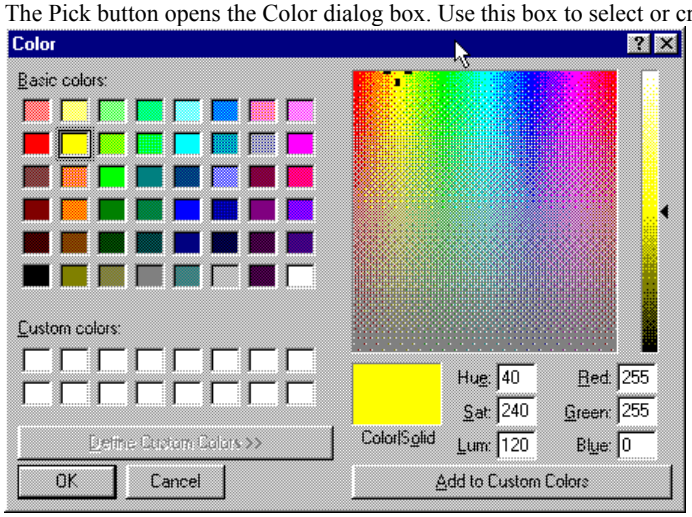


CMYK Cyan/Magenta/Yellow/Black.



Pick… Button

The Pick button opens the Color dialog box. Use this box to select or create a new color.



Palette Management Section

EZ-Engrave is supplied with a series of palettes in addition to the standard palette which appears when EZ-Engrave is first opened. These palettes are organized by vinyl manufacturer, and provide a representation of the most current catalog at the time this version of EZ-Engrave was produced. This section provides the ability to save, mix, and manipulate the completed color plate and the various color palettes. This is accomplished through the use of several features:

Add

The Add button adds the color created to the current palette without affecting the original color from which the new color was created.

Delete

The Delete Button removes the selected color plate from the palette. Because this button does not distinguish between the new color and the color from which it is derived, but simply deletes the selected color, caution should be exercised when using it to avoid inadvertently deleting colors.

Change

The Change Button changes the selected color plate into the color created.

Load

The Load Button provides the ability to load a previously-saved palette in place of the current palette. Any colors which are currently being used will remain in the palette.

Using An Illegal Name For The Palette

DOS has certain conventions for naming files which must be followed when naming a palette file. The name of the file cannot contain more than eight characters, nor can it contain commas or colons. When specifying the name of the palette these conventions must be used, or EZ-Engrave will not be able to save the file.

If Save Palette On Exit is checked, and an illegal name is used for the palette, then exiting EZ-Engrave produces a warning indicating a problem with the file name. There is a choice between aborting the exit or exiting. If the file is closed without changing the name of the file, the palette will not be saved.

If Load Palette At Startup is checked, and an illegal name for the palette is specified, EZ-Engrave cannot load the specified palette, and will load the default EZ-Engrave palette instead.

Save As

The Save As Button provides the ability to save changes to a new palette file, thus allowing several palettes to be maintained for use in EZ-Engrave.

Load From…

The Load From... Button provides the ability to access previously-saved palette libraries, and load individual colors from them.

Color Characteristics Section

This section provides the ability to enter important data about the color created, or to access information about the colors in the palette. The available information includes the Color Name, the Vendor, the vendor's color or part Number, and the Type of material for each color plate.

Tool Number

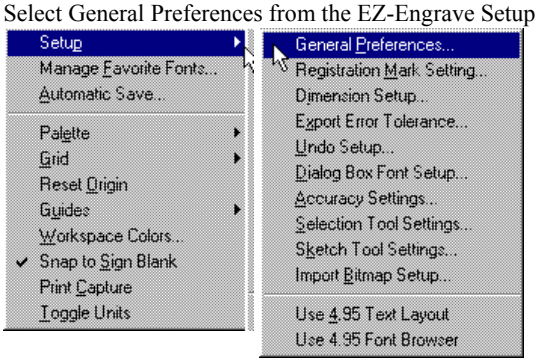
This setting provides the ability to assign a specific tool to the selected color. This can be particularly useful when the plotter supports multiple pens, or when planning to rout the file using several different tool bit sizes.

Close

Selecting this option closes the current palette, if the palette has not been saved using the Save As button no changes will be applied. If the palette has been saved, the option is available to use either this new palette created when EZ-Engrave opens, or the original EZ-Engrave palette.

Alternate palettes can be accessed via the Palette options in the Preferences dialog box.

- Select General Preferences from the EZ-Engrave Setup fly-out menu.



The General Preferences dialog box will open. The Palette section of the preferences dialog box provides the ability to develop and configure palettes as alternatives to the default palette supplied with EZ-Engrave. It is primarily used to develop a permanent palette as an alternative to the palette provided with EZ-Engrave.

From the Palette box:

Load Palette At Startup

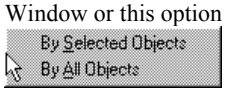
This option is used to load the palette named in the Palette File entry box, by default, whenever EZ-Engrave is started. Clicking on this check box causes EZ-Engrave to load the named palette each time it re-starts, while leaving it unchecked causes EZ-Engrave to load the default palette.

Save Palette On Exit

This option tells EZ-Engrave whether or not to save changes to the palette when exiting EZ-Engrave. Clicking on this check box causes EZ-Engrave to save the palette under the name specified in the Palette File entry box, while leaving it unchecked causes EZ-Engrave to discard changes on exit.

Sort Palette

The Sort Palette option allows for sorting the colors in the Color Palette from the most commonly used to the least commonly used in the file on screen. There must be objects in the EZ-Engrave Edit Window or this option will not be made available. There are two options for this sort.



By Selected Objects

This option will sort only those colors which occur in the objects selected. All other colors will appear in the palette behind these colors in the order in which they originally appeared before the sort.

By All Objects

This option will sort tall of the colors in the palette based on their use in the file, from most to least used. Any colors which appear in the palette, but do not occur in the file will be placed at the end of the palette in the order in which they originally appeared.

Truncate Palette

Selection of this option will cause EZ-Engrave to remove all unused colors from your Color Palette from the current Target Layer forward. If, for example, the current Target Layer is the fiftieth color in the palette, the Truncate Palette command will eliminate all unused color plates from the fifty-first on.

Reset Palette

Invoking the Reset Palette command will replace the current palette with the original EZ-Engrave default palette. Resetting the palette will not delete any colors in use from the color palette. Any colors that are not part of the default palette will appear at the end of the reset palette.

Note: The Reset Palette command, resets the palette to the default EZ-Engrave palette.

BRAILLE MODULE

BRAILLE MODULE - INTRODUCTION

The Braille module is designed to provide highly accurate, ADA compliant Braille translations for all signage needs. It is supplied with four standard fonts that meet the needs of nearly any project. To be able to take advantage of the unique Braille capabilities available in EZ-Engrave, the Braille Module must be installed in with the EZ-Engrave software.

BRAILLE TRANSLATOR

The Braille module is located within the Text tool bar. The Translator remains invisible except for the button that controls it, and is activated when the correct password is installed into EZ-Engrave. For instance if the Professional Text Compose password has been installed the Braille Module is activated.

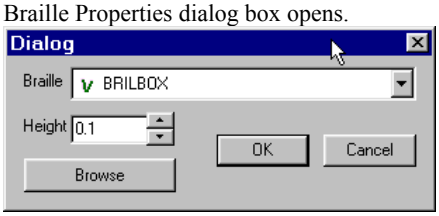
Braille Translation

Any Text paragraph is designed to hold the text strings that will be translated into Braille.

Un-translated text can be included within a paragraph with Braille text. After a string of text has been translated place the cursor in the appropriate spot and enter the un-translated text with the Braille Text paragraph.

Selecting a Braille Font

Before using the Braille Translator a Braille font must be selected as the target font for the translation process. To access the Braille Font Selector Dialog box right mouse click on the Braille button . The Braille Properties dialog box opens.



Braille

The Braille font scroll list displays all the fonts available for selection. Press the down arrow to vie the drop-down scroll list and select the appropriate font.

Height

Set the height of the font characters in this selection box by either using the scroll buttons or by highlighting the current entry and typing in the amount from the keyboard.

When selecting a Braille font, the Character Height is automatically set to .395 inches, the Federally-mandated standard in the United States. Change this height to suit a particular job, however, when selecting a Braille font, the height always returns to this default value.

The height of the Braille characters may be changed on a job-by-job basis in the same way as normal text within text compose.

Browse

If the Braille font required is not available in the Braille font scroll list press the Browse button to activate the Font Detective to add the required fonts to the system.

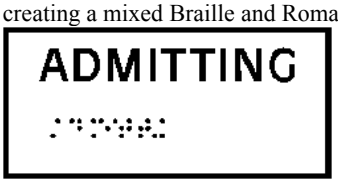
Braille Button

Pressing the Braille button causes all text to be translated into Braille.

Because pressing the Braille button translates all selected text, even already translated text, be careful not to translate until all of the text to appear in Braille is entered. Otherwise, all text that has previously been translated within the text will be lost, and replaced with the new translation.

Mixing Braille and Roman Text

To create a sign that includes both Braille and Roman (English Alphabet) text, certain procedures should be followed to ensure satisfactory results. To include un-translated (Roman) text within a paragraph with Braille text, enter the text directly into the Braille Text paragraph, the text will then appear exactly as entered. Always enter all text to be translated to Braille, and then press the Braille Translate button before entering any Roman text into the Braille Text paragraph. For example, when creating a mixed Braille and Roman font sign such as:



- Enter “Admitting” into the Text paragraph;
- Press the Translate button;
- Enter “Admitting” as Roman text into the Braille Text paragraph in the appropriate place.

BRAILLE FONTS

There are four fonts provided with EZ-Engrave’s Braille Module:

- Engraving;
- Photo-resist;
- Pre-bled Photo-resist, and
- Punch.

Before pressing the Translate button, select one of these four Braille fonts. This ensures that the translated text appears in Braille, and not some other font. These fonts are designed to accommodate the three most common forms of Braille signage:

- Engraving;
- Photo-resist; and
- Punch.

Engraving Font

The Engraving font included with the Braille module is designed and optimized for routing and engraving. It consists of uniform rectangles with appropriately placed dots representing the Braille characters. When engraving these characters, the engraver should automatically remove all of the material within the box, leaving only the Braille character.

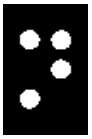


Photo-Resist Font

The Photo-resist font included with the Braille module is designed for use with photo-resist materials. Its characters consist of dots representing the Braille characters on a clear background, which when used as a mask in the photo-resist process, will produce properly spaced Braille characters.

Pre-Bled Photo-Resist Font

When producing Braille using the photo-resist method of production, using a font with the dots the correct size sometimes results in a finished font where the dots are slightly larger than standard. To address this concern, Roland has included with the Braille Module a Photo-resist font that is size-corrected to create properly-sized dots when producing Photo-resist Braille lettering.

Punch Braille Font

This Punch Braille font, like the other three, produces ADA-compliant signage. It is designed for use with punch Braille machines that do not engrave, but rather punch the dots of each character into a semi-soft signage substrate.

Braille and Character Height

When selecting a Braille font, the Character Height is automatically set to .395 inches, the Federally-mandated standard in the United States. Change this height to suit a particular job, however, when selecting a Braille font, the height always returns to this default value.

The height of the Braille characters may be changed on a job-by-job basis in the same way as normal text within text compose.

Braille And AutoKern

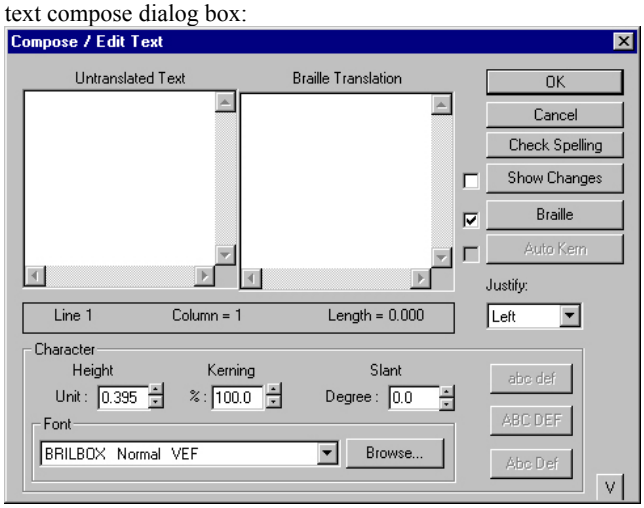
Whenever the Braille translator is active, AutoKern and all of its components are disabled. This is because the Braille fonts are carefully constructed to meet the Federally-mandated standard in the United States. Autokern, and especially any special kerning modes (Wide, Narrow, etc.) will disrupt the proper spacing of Braille characters.

BRAILLE TRANSLATOR IN 4.95 TEXT COMPOSE

The Braille module is located within the Professional Text Compose dialog box in EZ-Engrave. Until activated, the Translator remains invisible except for the button and check box that control it. The button remains inaccessible until the translator is turned on, by clicking on the check box.

Braille Check Box

This box is used to activate the Braille translator. It does not translate text to Braille, but rather readies the translator to accept text. When activated, the Braille Translator appears in the text entry box of the text compose dialog box:



The text entry box is now divided into two areas: The Untranslated Text box, and The Braille Translation Box.

Untranslated Text Box

This box is designed to hold the text strings that will be translated into Braille. Unlike the normal Text Entry box, nothing entered into this box appears on screen in EZ-Engrave unless translated first. Think of this box as a holding area where text is held until translated to Braille.

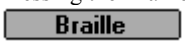
Braille Translation Box

Once the text entered in the Untranslated Text box has been converted to Braille, it will appear in the Braille Translation box. This box displays the text to be produced on screen by Text Compose, including all formatting and font information.

Untranslated text can be included within a paragraph with Braille text. Enter the required text into the Braille Translation box, as with the regular Text Entry box. This text will not be translated into Braille, but instead appears on screen exactly as entered, including all formatting and font information.

Braille Button

Pressing the Braille button causes three separate events to occur:



- First, all text is cleared from the Braille Translation box;
- Second, all text in the Untranslated Text box will be translated into Braille;
- Third, the translation will be placed in the Braille Translation box.

Because pressing the Braille button clears the Braille Translation box, be careful not to translate until all of the text to appear in Braille is entered. Otherwise, all text that has previously been translated within the box will be lost, and replaced with the new translation.

Mixing Braille and Roman Text

To create a sign that includes both Braille and Latin (English Alphabet) text, certain procedures should be followed to ensure satisfactory results.

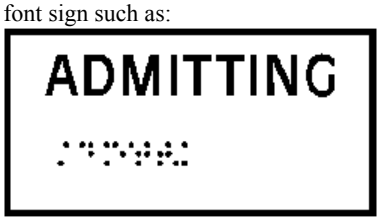
Entering Roman Text

To include untranslated (Roman) text within a paragraph with Braille text, enter the text directly into the Braille Translation box, as with the regular Text Entry box. The text will then appear on screen exactly as entered.

The Braille Button for Mixing Braille and Roman Text

Pressing the Translation button clears all text from the Braille Translation box before translating text from the Untranslated Text box. This means that any text entered directly into the Braille Translation box will be lost if the Braille Translate button is pressed.

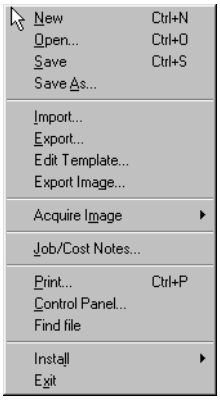
Always enter all text to be translated to Braille, and then press the translate button before entering any Roman text into the Braille Translation box. For example, when creating a mixed Braille and Roman font sign such as:



- Enter "Admitting" into the Untranslated Text box;
- Press the Translate button;
- Enter your Roman text into the Braille Translation box in the appropriate place;
- Press the OK button in the Text Compose dialog box.

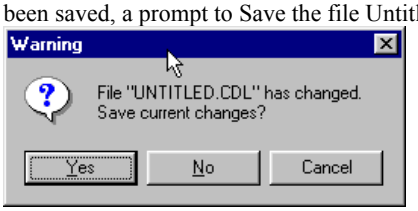
FILE MENU

FILE



NEW

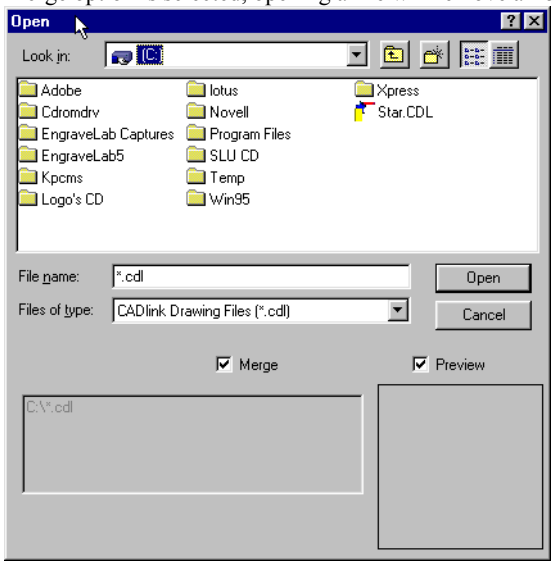
Use the New option to begin a new design session. If there is a file on screen, it will be removed from the view screen and all system resources, such as memory. If the existing drawing on screen has not been saved, a prompt to Save the file Untitled.CDL appears.



OPEN

This option recalls an existing file onto the screen from the hard drive. Prior to opening a new file, a prompt opens, to Save any existing graphic on the screen if changes were made to the file. Unless the

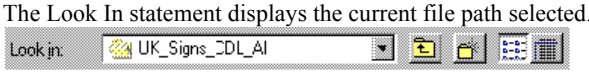
Merge option is selected, opening a file will remove all objects from the screen and system resources.



Keyboard Shortcut: [Ctrl+O]

Look In

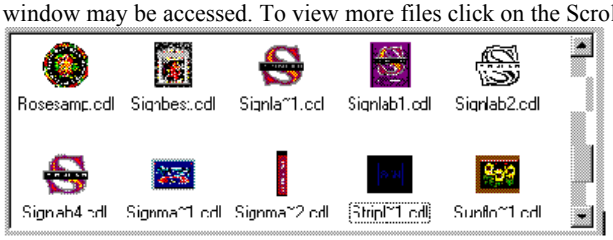
The Look In statement displays the current file path selected.



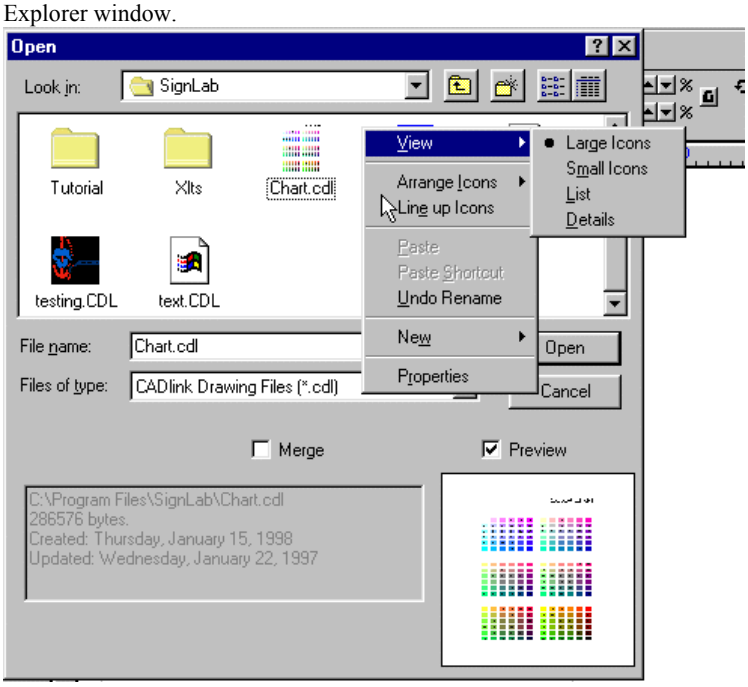
Click on the Up One Level button  to back up in the directory structure.

Files

The Files box shows a list of files available in the selected directory. Any files showing in the scroll window may be accessed. To view more files click on the Scroll Bars at the side of the box.



Files can be viewed as Large icons (as above), as a list of icons — click the List button , or as a detailed description — click the detailed button . The Files box acts like a window in Windows Explorer, right mouse clicking within the window provides the same options as available for an Explorer window.

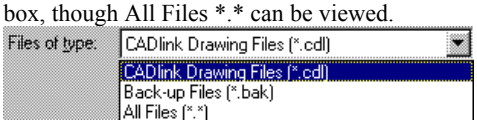


File Name

The File name box shows the file that has been selected from the Files List box.

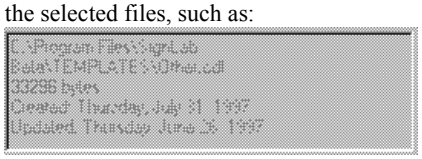
Files of Type

Only Ideal Stencil files, *.CDL and *.BAK files, may be accessed from within the Open File dialog box, though All Files *.* can be viewed.



File Preview

The window at the bottom of the Open dialog box gives easy access to useful information regarding the selected files, such as:



- the directory path and file name;
- the size of the selected file;
- the creation date of the file; and
- the date the file was last updated.

For easier selection of files, a thumbnail view of the selected CDL file appears within the Preview window. The Preview check box must be marked to use this option.

When opening a file from the Program Manager, or through the Windows ’95 Explorer, CDL files saved with the preview option use a file image as their icon. Older versions of EZ-Engrave files do not have a preview.

Merge

The Merge option should be selected if the file being opened is to be combined with the file currently on screen.

Open

Once the desired file is selected, it may be opened by double-clicking on the file name, or by single-clicking on the file name to select it and then clicking on the Open button. When the file appears on the screen, all objects in the file will be restored to the Layers to which they were assigned when they were saved.

To Open a File

Before opening a file, check the Look In box to see if the required directory and drive is selected. All files available in the selected directory will automatically be listed in the Files box. If the directory is not listed in the Look In box, click the Up One Level button  to back up in the directory structure. Once the required file is selected, it may be opened by double-clicking on the file name, or by single-clicking on the file name to select it and then clicking on the Open button 

. When the file appears on the screen, all objects in the file are restored to the Layers assigned when they were saved.

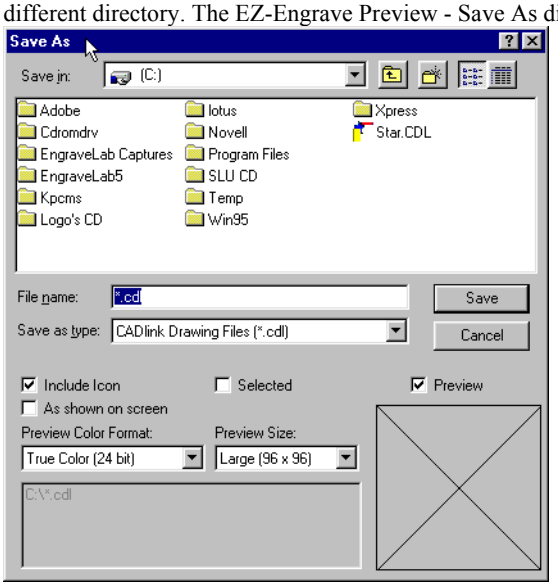
SAVE

The Save command is used to store a file on a hard drive or floppy disk. Selecting this command will cause the file in the main view screen to be saved under the current file name, displayed in the title bar at the top of the screen. Files saved with the Save command will be stored in the current directory as a .CDL file format. All Color, Sign Blank and Tiling information will also be stored within the file. The first time a file is saved, Save will perform like Save As.

Keyboard Shortcut: [Control + S]

SAVE AS

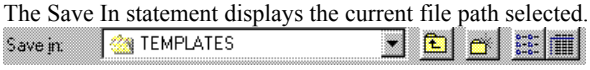
The Save As command is used for saving the file currently on screen under a new name or in a different directory. The EZ-Engrave Preview - Save As dialog box will appear on screen.



Keyboard Shortcut: [Control + V]

Save In

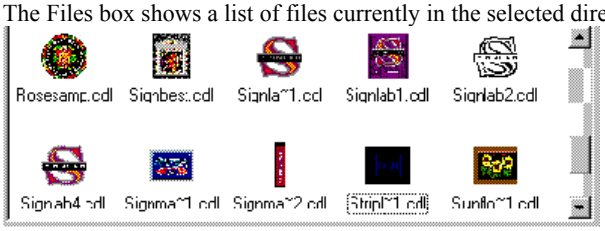
The Save In statement displays the current file path selected.



Click on the Up One Level button  to back up in the directory structure. Click on the Create New Folder button to add to the current directory structure.

Files

The Files box shows a list of files currently in the selected directory.



File Name

The File name box shows the file that has been selected from the Files List box.

Save as Type

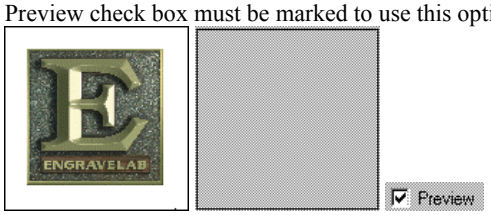
Files can be saved as Ideal Stencil files, *.CDL, or with any specific extension with All Files, *.*, selected.

Note: Changing the file extension does not convert the files to another application, they are still EZ-Engrave files. However, the extension will not be recognized by EZ-Engrave unless the association settings in Windows is changed.

File Preview

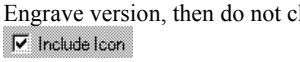
The window at the bottom of the Save As dialog box provides the directory path and file name.

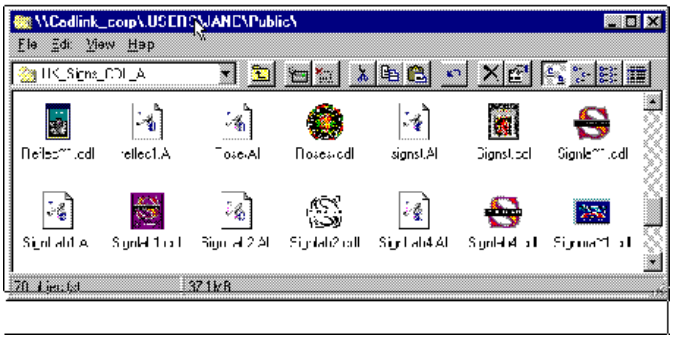
If a file has previously been saved, a thumbnail view of the selected CDL file appears within the Preview window. If this is the first time the file is being saved the preview will remain blank. The Preview check box must be marked to use this option.



Include Icon

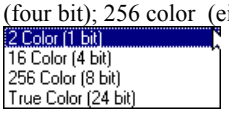
When opening a file from the Program Manager, or through the Windows ’95 Explorer, CDL files saved with the Include Icon option use a file image as their icon. To save a file for an older EZ-Engrave version, then do not check this option when saving the file.





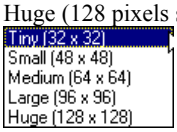
Preview Color Format

The preview can be saved as one of four different color formats: Two color (one bit); Sixteen color (four bit); 256 color (eight bit); and True color (twenty-four bit).



Preview Size

The preview size can be set as one of five different size options: Tiny (thirty-two pixels square); Small (forty-eight pixels square); Medium sixty-four pixels square); Large (ninety-six pixels square); and Huge (128 pixels square).

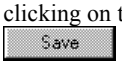


Selected

Using the Selected option ensures that only those items that are currently selected in the file on screen are saved.

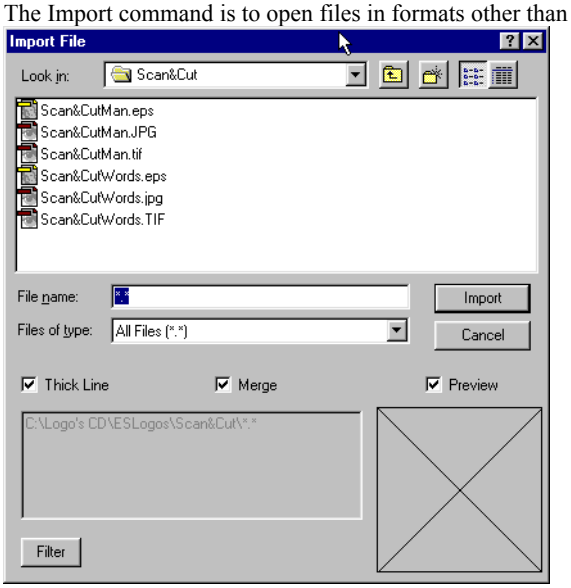
Save

Once the required file is named, it may be saved by clicking on the file name to select it and then clicking on the Save button.



IMPORT

The Import command is to open files in formats other than *.CDL.



The Import dialog box functions in the same manner as the Open dialog box, for detailed information on some of the featurs for the Import dialog box refer to the Open dialog box earlier in the section.

Files of Type

In the Import dialog box a listing under Files of Type includes many of the following, depending on the modules installed:

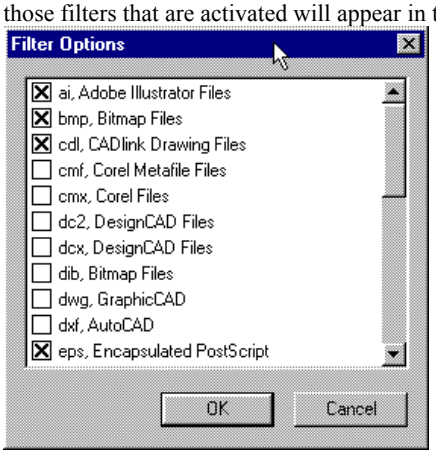
> .AI	> .BMP	> .CDL	> .CMF	> .CMX	> .DC2
> .DCX	> .DIB	> .DWG	> .DXF	> .EPS	> .GC1
> .GC2	> .GC3	> .GNT	> .GTP	> .JPG	> .PCD
> .PCX	> .PLT	> .PRN	> .SYM	> .TGA	> .THZ
> .TIF	> .VE	> .WMF	> .WPG.		

The Import option provides the ability to recall an existing file onto the screen. Unless the Merge option is selected, importing a file will remove all other files from the screen and all system resources.

Files of Type Filter

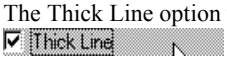
The Filter button at the bottom of the dialog box provides the ability to limit the Import filters listed in the Files of Type list box. 

Pressing the Filter button opens the Filter Options dialog box. Simply activate or de-activate a filter by clicking in the check box. Press OK to return to the Import dialog box. The next importing session only those filters that are activated will appear in the Files of Type list.



Thick Line

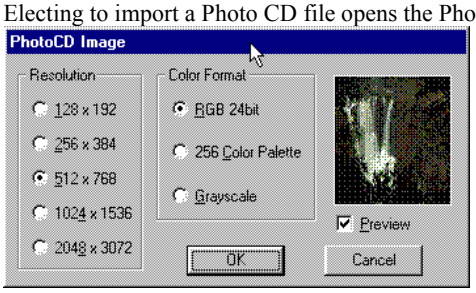
The Thick Line option will apply a Thick Line to all outlines and hairlines in the file to be imported.



> ***A Note Of Caution:*** When importing .EPS and .AI files, be aware that EZ-Engrave does not recognize line thickness information in these file types.

Importing Photo CD (PCD)

Electing to import a Photo CD file opens the PhotoCD Image dialog box:



From within this box, select the Resolution and Color Format for the Photo CD file to import.

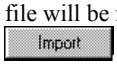
A Note About CorelDRAW!TM CMF Files

If a CorelDRAW!™ version 3, 4, or 5 is installed on the hard drive, EZ-Engrave installs an export filter into the CorelDRAW!™ export menu. This is a custom export filter optimized for file exchange between CorelDRAW!™ and EZ-Engrave. The filter appears in the CorelDRAW!™ export menu as "Export To EZ-Engrave" and generates *.CMF files. This is the preferred method of file exchange.

> ***Note:*** The CMF filter is not available if running CorelDRAW!™ 5, 6, 7, or 8. There is an add-on module called Short-Cut to export from versions 5, 6, 7, or 8. The CMF filter is not available if CorelDRAW!™ is running from the CD-ROM.

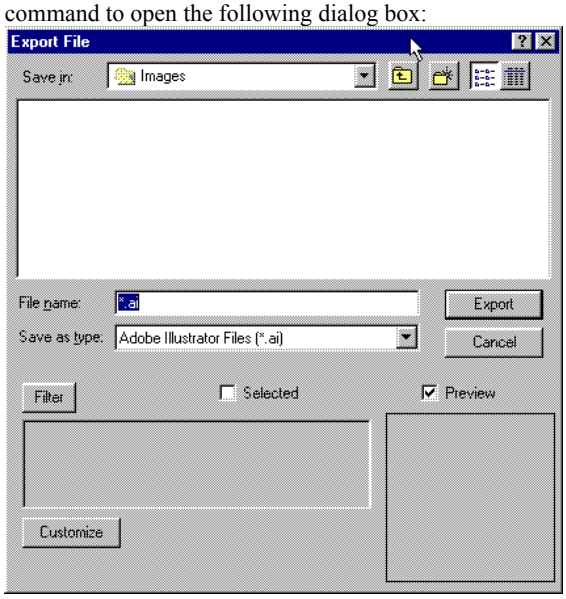
To Import a File

Before importing a file, check the Look In box to see if the desired directory and drive is selected. All files available in the selected directory will automatically be listed in the Files box. If the directory is not listed in the Directories box, use the Up One Level button to step up to the parent sub-directory. Once the required file is selected, double-click on the file name, or single-click on the file name to select it and then clicking on the Import button. When the file appears on the screen, all objects in the file will be restored to the Layers to which they were assigned when they were saved.



EXPORT

The Export dialog box works in the same way as the Save and Save As dialog boxes excepte that the files can be exported in numberous types of files. For more information on the features within the Export dialog box please refer to the Save documentation earlier in the section. Select the Export command to open the following dialog box:



File Type

The File Type box shows the file types available with the Export command. The Export command is used to save a file in a format other than .CDL. EZ-Engrave offers the option to save files in several different formats, depending on the modules installed:

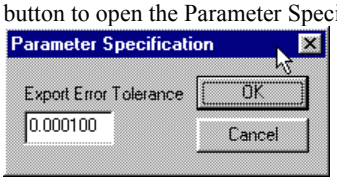
> .AI > .DC2*(Line)* > .DC2*(Line_Arc)* > .DXF*(Line)* > .DXF*(Polyarc)*
> .DXF*(Polyline)* > .DXF*(Spline)* > .EPS > .GAD > .GC1
> .GC2 0 > .GC3 > .PLT > .PS > .TXT*(HTD)*
> .TXT *(Newing-Hall)*

Filter

The Filter button provides the ability to choose which filters will be available for use with the Export feature. Refer to the Import documentation earlier in this section *(pp.9)*.

Customize

The Customize button provides the ability to set the Export Error Tolerance. Press the Customize button to open the Parameter Specification dialog box.



When exporting a file from EZ-Engrave, the resulting file sometimes contains a very large number of nodes. This is especially true of artwork that was originally imported from another software. To combat this problem, EZ-Engrave allows exporting of files using a certain tolerance level, this will to make the exported artwork smoother, and substantially reduce the number of nodes in the file.

Specify the acceptable amount of error in the Error Tolerance edit box. This box uses the unit of measurement specified in the General Preferences dialog box as its standard (i.e., inches or millimeters).

We caution against entering a high value in this box, as the Export Error Tolerance may introduce distortion into the exported objects if set for a very high tolerance. As a rule, the default value (0.001 or 1/1,000 of an inch) will work very well with most files.

Exporting a File

- When exporting a file select the type of file format from those available in the File Type box;
- Move the cursor to the Save In box and specify the desired Path;
- Enter the file name into the File name box.

EDIT TEMPLATE

Selecting this option activates the Open dialog box specifically in the Templates directory of the EZ-Engrave folders. Contained within this folder are the default template files that come with the EZ-Engrave application. For more information regarding Templates refer to Templates in the Layout menu section later in this chapter.

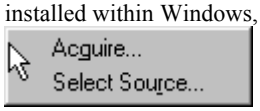
EXPORT IMAGE

Export Image provides the ability to export the bitmap portion of the file currently on screen in a raster/pixel output format. Choose from BMP, PCX, or TIF formats.

Export Image works similar to Export, however, it will not allow exporting of vector-based objects. See the previous pages on Export for more detailed instructions on the options available with Export Image.

ACQUIRE IMAGE

The Acquire Image option allows access to the TWAIN support offered by EZ-Engrave. This support provides the ability to operate TWAIN-compliant scanners directly from within EZ-Engrave, without any intermediary software. To function properly, the scanner control software must be properly installed within Windows, and must be TWAIN-compliant.



There are two options available under the Acquire Image command.

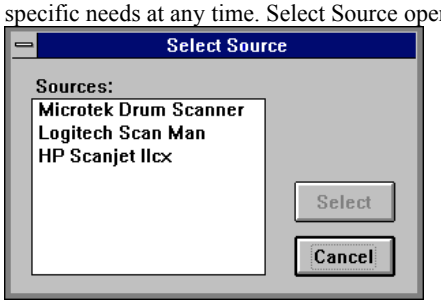
Acquire

This option calls the TWAIN-compliant software, initializes the scanner, and prepares the system to receive a scanned image. Upon exit from the scanning software, the acquired image will be imported into EZ-Engrave.

Select Source

This option provides the ability to choose the TWAIN input device that will acquire images.

If only one source (i.e., only one scanner and/or scanning software) is attached to the system, set this once. However, if more than one source of TWAIN-compliant input (i.e., both a flat bed scanner and a hand-held device) is attached, this feature provides the ability to choose between the devices to suit specific needs at any time. Select Source opens the Select Source dialog box:



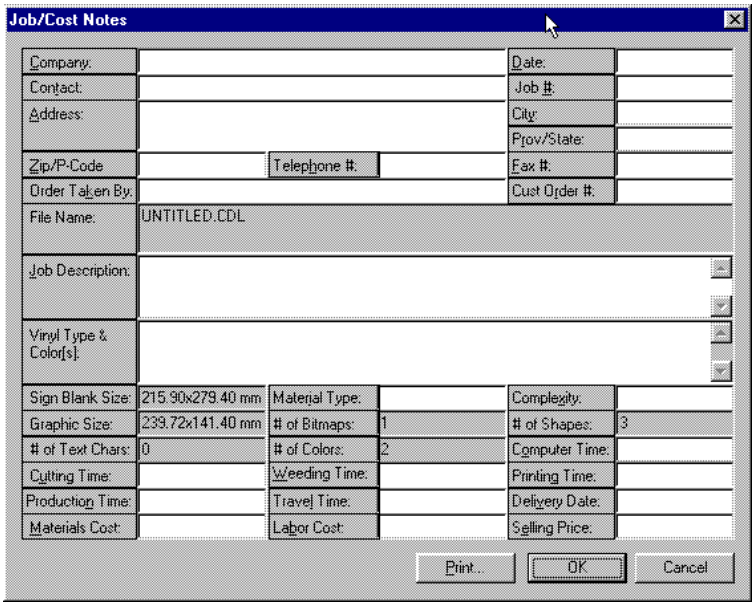
Sources

The Sources box lists all available TWAIN-compliant devices attached to the system. Click on the source to receive data from, and press the Select button.

Select

Pressing the Select button changes the source and returns to the main EZ-Engrave view screen.

JOB/COST NOTES



The Job/Cost Notes option opens a dialog box to enter all relevant information for a given job. The information then becomes part of the file itself, and is always available for review. To access the Job/Cost Notes dialog box, select this option from the file menu.

Company

Enter the name of the company for whom the current job is being produced in this entry box.

Date

The Date field can be used to note the date the job was started or the order taken. Values in this field must be entered manually, as there is no automatic date function.

Contact

Enter the name of the person responsible for contracting and accepting the finished job.

Job #

For an inventory of jobs by number or by any other alpha-numeric code for filing purposes, enter that appropriate code into this box.

Address

Enter the street name, unit number, and bay or apartment of the customer in this field.

City

Enter the city of the customer.

Prov. /State

This field is used to note the name of the province or state where the customer is located.

Zip/P-Code

Enter the customer's Zip or Postal Code in this field.

Telephone

Enter the telephone number for the contact for the current job.

Fax

Enter the fax number of the contact in the Fax field.

Order Taken By

Enter the name or employee number of the person who took the order for the job in this space. With more than one salesperson, attribute each job to a specific employee. This provides the ability to clarify details with the appropriate person on staff, or to track sales by employees.

Cust Order #

Enter the Job or Customer Order number if Purchase Orders are required prior to starting a job.

File Name

The name of the EZ-Engrave file will automatically be entered in this field when the Job/Cost Notes dialog box is accessed. If the file is saved under a different name, that change is reflected in this field.

Job Description

A brief description of the job should be entered into this field. This will help identify a given job quickly and easily.

Vinyl Type & Color(s)

This field is used to identify the manufacturer, grade, and color of each piece of the vinyl used in the current job. This facilitates repairs to, or reproduction of, the job in the future.

Sign Blank Size

This field is used to track the final size of the finished Engraveing, including substrate. This field automatically displays the size of the sign blank and will change to reflect edits made to that setting.

Material Type

Enter the type of material the current job is to be constructed with in this field. (i.e., If the job is to be routed in plastic, specify "plastic" in the Material Type field. If routing or engraving in a specific type of wood or metal, enter the material accordingly).

Complexity

Many Engravers makers use a complexity rating in order to help set pricing on certain types of work. Rate each job for complexity and enter the complexity value in this field.

For Example: Because of the letter welding and intricate weeding, a Engraving using script lettering takes more time than one using a sans serif font. It would be considered more complex than the sans serif Engraving, and would be priced accordingly.

Graphics Size

This field reflects the finished size of the current job, including all elements of the job, but not including the sign blank. This field is automatically calculated and updated each time the Job/Cost Notes dialog box is opened.

of Bitmaps

This field reflects the number of bitmaps currently contained in the job, and is automatically calculated and updated each time the Job/Cost Notes dialog box is opened.

of Shapes

This field reflects the number of polygons and non-text objects contained in the current job, this includes all text objects that have been converted to graphics. The # Of Shapes field is automatically updated each time the Job/Cost Notes dialog box is opened.

of Text Chars

This space indicates the number of text characters contained in the current job — excluding text objects converted to graphics or generated by the Dimensioning feature. This field is updated automatically when the Job/Cost Notes dialog box is accessed.

Note: Any text character converted to graphics will be recognized as graphic objects and included in the # of Shapes field. This includes all text that has been transformed, welded, converted to graphics, or has had the path broken or the corners rounded. In all cases, a dialog box warning appears before the text is converted.

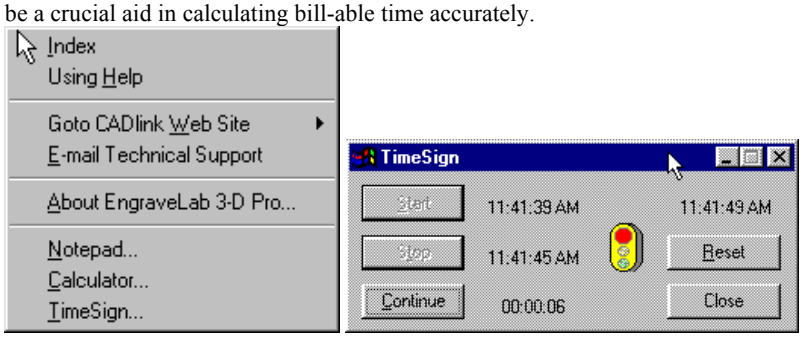
of Colors

This field displays the number of colors currently used in the job, and is automatically updated each time the Job/Cost Notes dialog box is accessed.

Computer Time

Use this box to track the amount of computer time spent on a given job. This can be useful information when calculating the cost of a given job. Enter the value in this box manually, there is no automatic time calculation for this function.

Used in combination with TimeSign, available through the Help Menu, the Computer Time field can be a crucial aid in calculating bill-able time accurately.



See the section on the Help menu later in this chapter for more information on the TimeSign feature.

Routing Time

This box may be used to track the amount of time required to rout a given job, and can aid in calculating job costs. This is particularly useful for jobs requiring output on a router or engraver, where machine time is a bill-able expense. Values are entered manually, there is no automatic time calculation available for this function, however, it can be used in combination with TimeSign to calculate bill-able time accurately.

Weeding Time

This field is designed to reflect the amount of time required to weed the current job. It is typically used either to note the estimated weeding time (for pricing purposes) or the actual weeding time (for reference in pricing future jobs). Values are entered manually, there is no automatic time calculation available for this function, however, it can be used in combination with TimeSign to calculate bill-able time accurately.

Routing Time

Enter the amount of time required to Rout the current job. This field is primarily designed as an aid for estimating or costing jobs which specify large-format digital routing, but is also useful for those jobs which require printed previews. It may be used to note estimated routing time for pricing, or actual routing time for job costing. Values are entered manually, there is no automatic time calculation available for this function, however, it can be used in combination with TimeSign to calculate bill-able time accurately.

Production Time

Enter the required production time in this field. It may reflect the estimated time required for pricing purposes, or actual time required for job costing. Values are entered manually, there is no automatic time calculation available for this function.

Travel Time

Enter the amount of time required to get to and from the current job site in this field. This feature can be particularly useful where travel time is a factor in the final cost of the Engraving.

Delivery Date

Enter the due date scheduled for the current job in this area.

Materials Cost

Enter the actual or estimated cost of materials for the current job in this field.

Labor Cost

The cost of labor should be entered into this field.

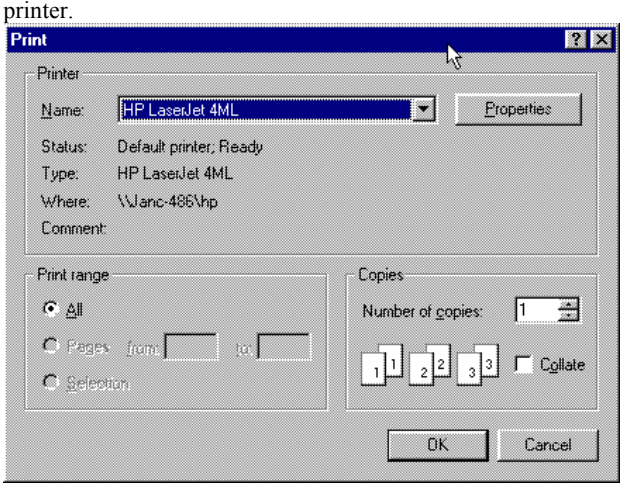
Selling Price

For future reference, and as an aid to job pricing and accounting, include the selling price of the current job in this space in the Job/Cost Notes dialog box.

Print

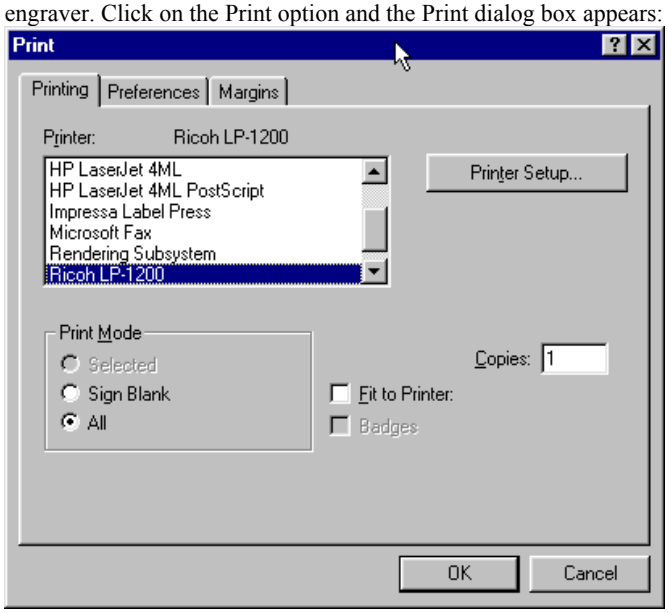
The Print button 

opens the Print dialog box to send the Job/Cost Notes sheet to the selected printer.



PRINT

The print option sends the current drawing on the screen to a Windows supported printer/ router/ engraver. Click on the Print option and the Print dialog box appears:



This Print dialog box is a standard Windows printing dialog box, with three tab levels available: Printing; Preferences; and Margins.

Printing

Within the Printing tab are options to select the Printer/ router/ engraver, Print Mode, Printer/ router/ engraver Setup, number of Copies, as well as the option to Fit to Printer and to Print Badges.

Printer/ Router/ Engraver

The current printer/ router/ engraver selected will be shown directly under the title of the Select Printer Options dialog box. A list of available printers/ routers/ engravers is shown inside the Printer list box. These are the drivers set up in the Control Panel. Select the required printer/ router/ engraver from the choices shown in the list box by clicking on the required printer/ router/ engraver. The selected printer/ router/ engraver will become highlighted.

> ***Note:*** If a printer/ router/ engraver is not displayed in the printer list box, the printer driver must be loaded into Windows using Windows Control Panel before it becomes available in EZ-Engrave (See the Control Panel section later in this chapter), Print Mode

Specify the portion of the file to be printed/ routed/ engraved by one of three criteria: All; Sign Blank; and Selected.

Selected Prints only those objects that are currently selected.

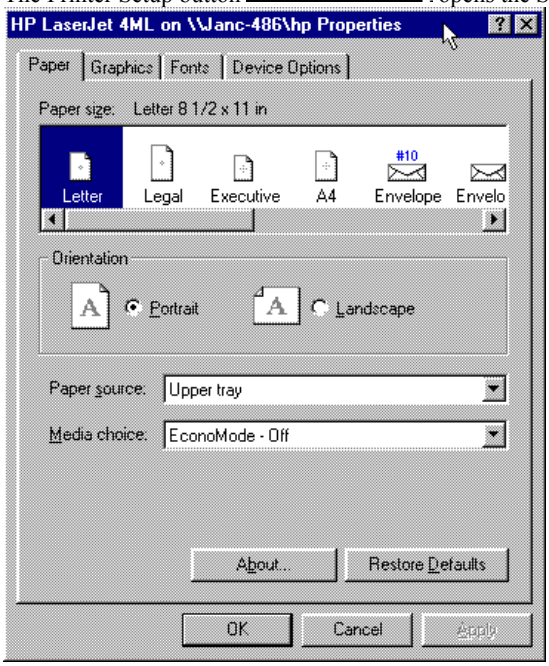
SignBlank ..... Prints/ routs/ engraves everything within the confines of the SignBlank, any objects outside the SignBlank are left un-printed. When using this option, it is important to remember that any object which appears only partially on the SignBlank will be only partially printed/ routed/ engraved.; and

All .. Prints/ routs/ engraves everything within the open file, including objects outside the confines of the SignBlank.;

Printer Setup

The Printer Setup button 

opens the Setup dialog box for the selected printer.



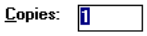
Changes made to this dialog box, and all related dialog boxes accessed though the Setup dialog box, are system-wide. Any changes are applied to the Windows' Print Driver for the selected printer/ router/ engraver, and as such, these changes will appear in all other Windows programs. For example, if the print resolution for the driver is changed, this change occurs throughout Windows until changed again.

Fit to Printer

This option is used to size the printed image to fill the printable dimensions of the sheet currently loaded in the printer/ router/ engraver. The edit box which appears when this option is activated displays the size of the printed output as a percentage of the size of the actual file. This value can be edited if required.

Copies

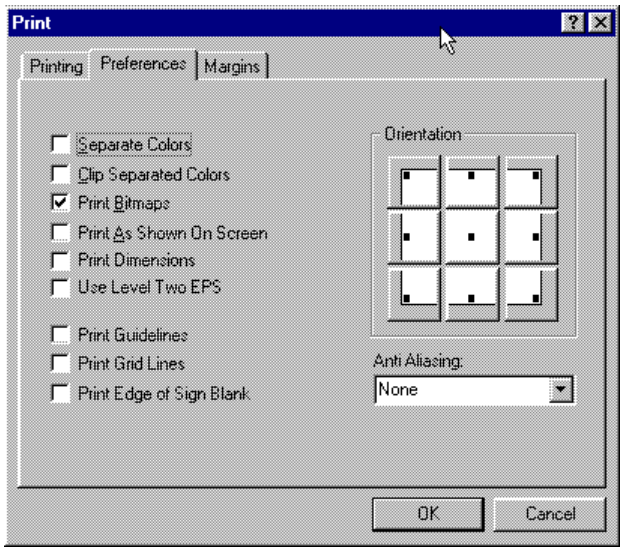
This entry box is used to specify the number of copies to be printed/ routed/ engraved. This box is edited by sweep-selecting the entry and typing in a new number. By default, the entry in this box is "1".



Badges

When the Badges check box is activated multiple pages can be printed/ routed/ engraved in one sitting. This option is only available if the Badges features has been used to create a multi-page file. See Printing Multi-page files with Badges in the Layout menu section of this chapter for more information.

Preferences



Separate Colors

Selecting this option causes EZ-Engrave to print/ rout/ engrave colored objects on the screen one color at a time.

Clip Separated Colors

This option clips the separated colors when routing.

Print Bitmaps

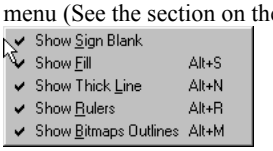
Select this option to print bitmap files imported into, or Rendered in, EZ-Engrave (i.e., *.BMP, *.PXC, or *.TIF files).

Print As Shown On Screen

This option prints/ routs/ engraves the file as it is shown on screen. Functionally, this option allows printing the file:

- as wire frames (no fills) if Show Fills is turned off;
- without thick lines if Show Thick Lines is turned off; and
- with bitmaps as a place holder, if Show Bitmap Outline is selected from the View menu.

All the aforementioned Show… options are available through the View fly-out menu from Options menu (See the section on the Options menu later in this chapter for more details).



Print Dimensions

This option prints/ routs/ engraves any dimensions created in the file. Dimensions include any size notations or notes generated using the Dimensioning tools from the Measure tool in the tool bar.

> ***Note:*** This option will not be available if printing to a PostScript device and the Use Level Two EPS option is selected.

Use Level Two EPS

Selecting this option causes EZ-Engrave to print/ rout/ engrave to the PostScript device using Level Two PostScript, an optimized printer language. This option is only available if the selected printer/ router/ engraver is a postscript device.

Print Guidelines

With this option selected any Guides placed on screen will be printed/ routed/ engraved along with the Guide Labels. The Guides must be set as visible in order to be printed/ routed/ engraved.

Print Grid Lines

With this option selected the Grid placed on screen will be printed/ routed/ engraved. The Grid must be set as visible in order to be printed/ routed/ engraved, and will be printed/ routed/ engraved as set to view (i.e., View Grid as lines will be printed/ routed/ engraved as lines).

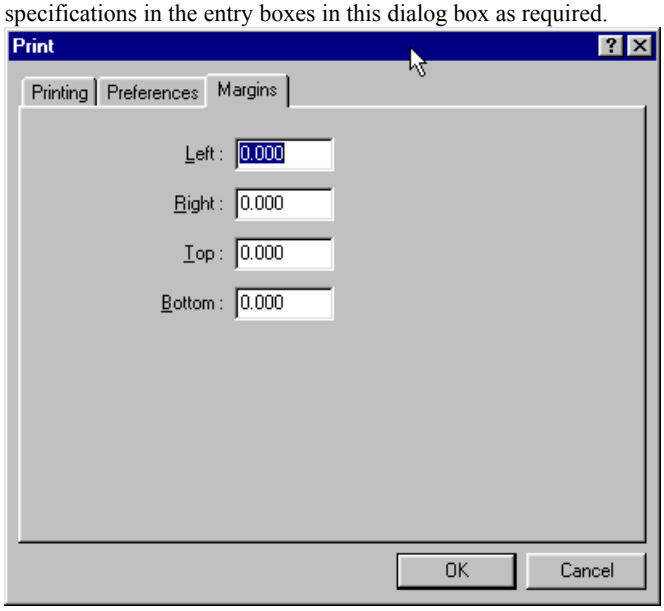
Print Edge of Sign Blank

With this option selected the Sign Blank edge on screen will be printed/ routed/ engraved. The Sign Blank must be set as visible in order to be printed/ routed/ engraved.

Margins

Some printer drivers do not account for the non-printable areas, or margins of the page. In those cases, EZ-Engrave provides for the margins settings, by accessing the Margins tab. Enter margin

specifications in the entry boxes in this dialog box as required.

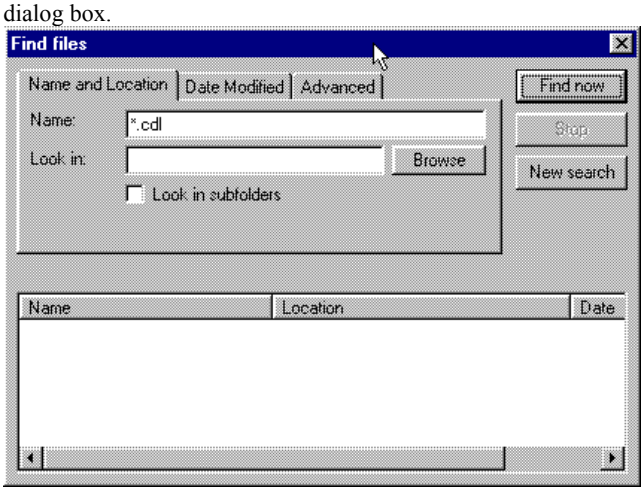


CONTROL PANEL

This option opens the Windows' Control Panel.

FIND FILE

Use the Find File feature to quickly search the system for files by: name, creation date, modification date, or by keyword, without leaving EZ-Engrave. Selecting the Find File option opens the Find File dialog box.



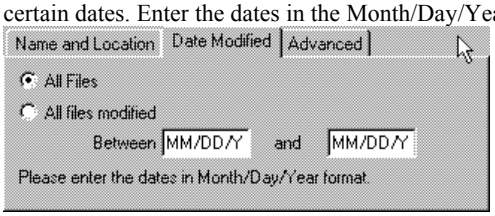
There are three main ways of searching the system for a file.

Name and Location

Select the Name and Location tab to search the system using the file name and to designate specific directories or folders to search. Type in the name of the file in the Name entry box, and use the Browse button to select the appropriate drive and/or directories.

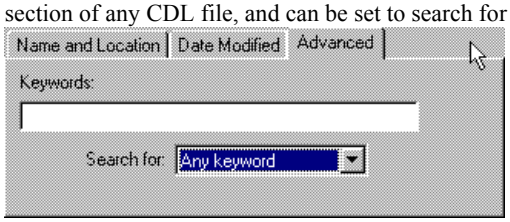
Date Modified

Select the Date Modified tab to search for files based on specific modification dates. Files can be searched generally with the All Files radio button activated or specifically for Files modified between certain dates. Enter the dates in the Month/Day/Year format.



Advanced

The advanced tab provides the ability to search for files based on keywords contained in the Job Notes section of any CDL file, and can be set to search for Any Keyword or for All Keywords.



Find Now

The Find Now button activates the search based on the provided parameters.

Stop

Use the Stop button to halt a search in progress.

New Search

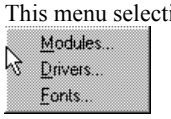
If a search has been stopped and the parameters changed use the New Search button to reactivate the Search.

Found Files List

All files found during a search are listed in the Found Files list box. Files can be opened directly from the list box by double-clicking the selected file.

INSTALL

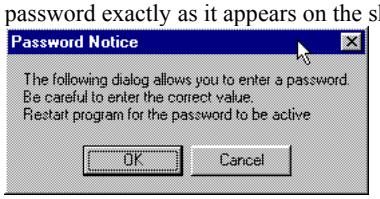
This menu selection expands to display three separate options: Modules, Drivers, and Fonts.



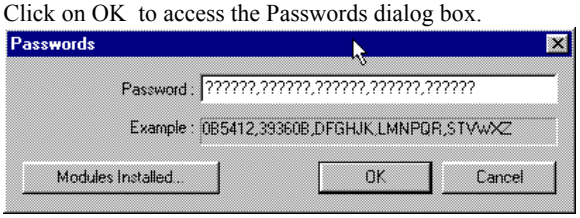
Install… Modules…

This option is used to activate additional modules that can be purchased separately from the main EZ-Engrave Foundation module. If activating a new module purchased subsequent to the original purchase of EZ-Engrave, a new password must be entered into the existing EZ-Engrave program. Entering this new password activates the new module.

Selecting the Install Modules option first produces a warning dialog box reminding to enter the new password exactly as it appears on the sheet provided by Ideal Stencil or one of its authorized re-sellers.



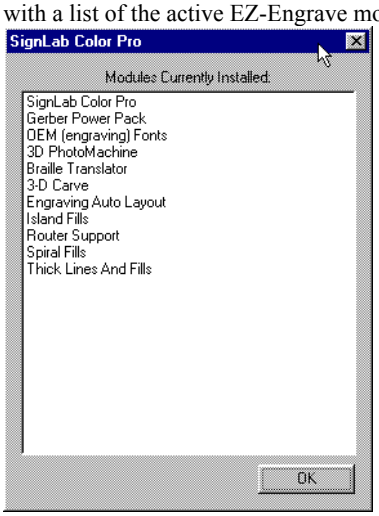
Click on OK to access the Passwords dialog box.



> ***Note:*** If upgrading EZ-Engrave, it is a good idea at this point to make a note of the previous password before continuing. Also note that EZ-Engrave passwords do NOT contain any vowels.

Modules Installed…

To verify those modules actually installed, press the Modules Installed… button to open a dialog box with a list of the active EZ-Engrave modules.



Activating a Module

To activate a new module:

- select the Install Modules option in the File menu;
- click in the Password box and enter the password received with the new module;
- click OK to accept the password;
- Exit EZ-Engrave, and
- restart the program for the changes to take effect.

The new modules activated will now be available when EZ-Engrave is re-entered.

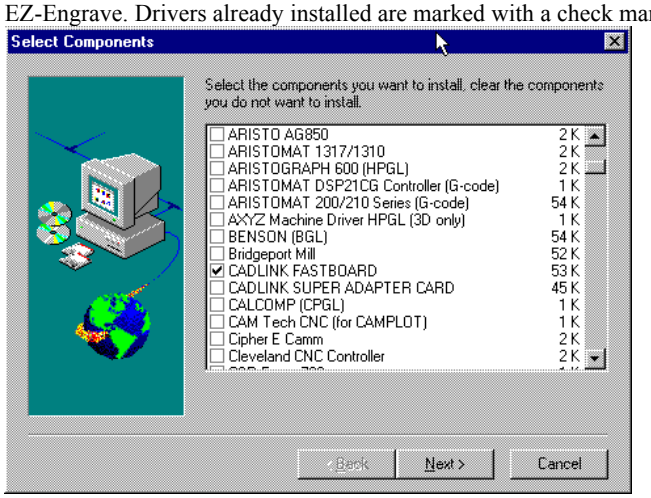
> ***Note:*** Always exit from and re-start EZ-Engrave after installation of new passwords. Otherwise, the new modules will not be activated by the main EZ-Engrave module.

Install… Drivers…

This option allows for the installation of plotter drivers into EZ-Engrave. Install a new driver into EZ-Engrave if a new routing device has been purchased, or if an improved or updated driver for the existing machine has been received from Ideal Stencil or one of its authorized re-sellers. Clicking on the Install… Drivers option opens the Select Components dialog box (ensure that the disk containing the drivers installation files is inserted into the appropriate drive).

Installing a Driver

The Select Components box requests the language for Driver modules. Follow all on screen instructions. The second Select Components dialog box displays a list of those drivers available with EZ-Engrave. Drivers already installed are marked with a check mark.

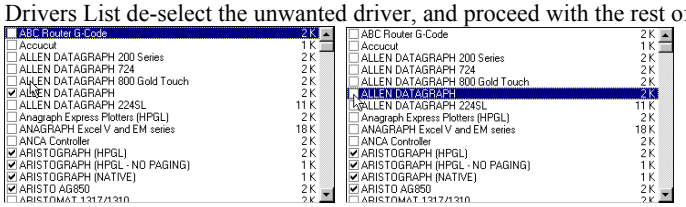


Next

The Next button proceeds to the next step in the installation process. The Next button only becomes available after a driver has been selected.

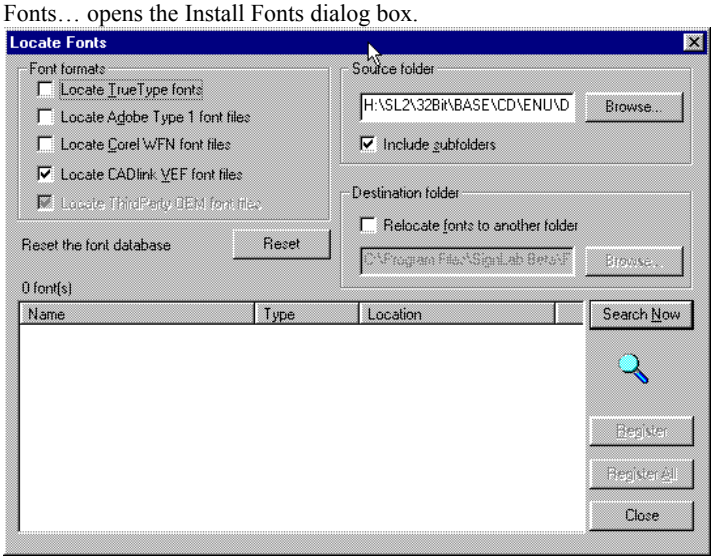
Deleting A Driver

To Delete a driver follow the install procedure, except, instead of selecting new drivers from the Drivers List de-select the unwanted driver, and proceed with the rest of the install.



Install… Fonts…

This option allows for the installation of additional fonts into EZ-Engrave. Selecting the Install… Fonts… opens the Install Fonts dialog box.



From within this dialog box, specify where the fonts are to be found, and where they are to be placed during installation. Fonts can be Registered with actually requiring space on the hard drive. However it must be noted that to run EZ-Engrave efficiently any registered fonts should be readily available when EZ-Engrave is started. For example if fonts are registered to be found on a CD-ROM, that specific CD should be inserted in the CD drive prior to starting EZ-Engrave.

Font Format

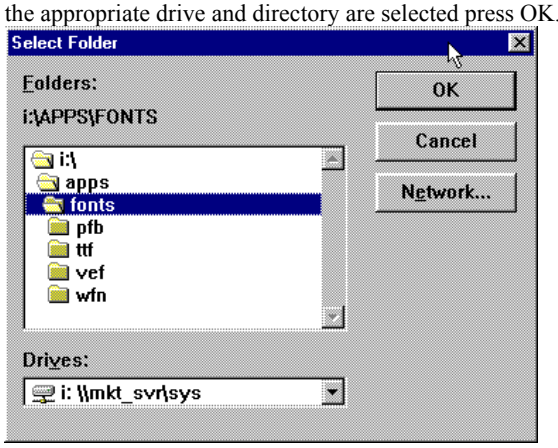
This box contains a series of check boxes with the type of fonts to be installed. To view a list of the available fonts on the selected disk drive click on the appropriate check box. The Font Types available for use with EZ-Engrave are: True Type; Adobe Type 1; Corel WFN; Ideal Stencil VEF; as well as third party OEM fonts.

Source Folder

The Source Folder box displays the currently selected source drive for the fonts. To access another driver select the Browse button.

Browse

The Browse button opens the Browse dialog box to change the Source Folder for font selection. Once the appropriate drive and directory are selected press OK.



Include Subfolders

Activating the Include Subfolders option causes EZ-Engrave to search not only in the selected folder but in all folders contained within the selected folder.

Destination Folder

The Destination Folder box displays the currently selected source drive for installing the fonts into. To access another driver select the Browse button. These options are only available if Relocate Fonts To Another Folder is activated.

Relocate Fonts To Another Folder

The Relocate Fonts To Another Folder button activates the ability to install fonts onto a hard drive from a CD or diskette. As EZ-Engrave functions equally well with fonts registered from a CD-ROM, installing fonts onto a hard-drive is not required, however the option is available through this feature for those who require re-locating fonts.

Reset

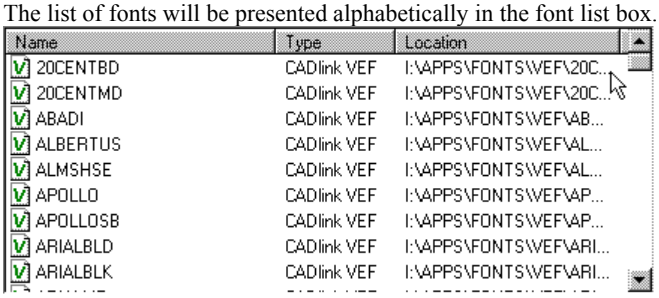
The Reset button will reset the Font Detective Database included in EZ-Engrave, it is not recommended to do this unless required, as resetting the Database removes all fonts from the Database except Ideal Stencil VEF fonts.

Search Now

The Search Now button will search the selected Source Folder for applicable fonts based on the Font Formats selected. The fonts will be listed in the Font list, preceded by an icon depicting the font type. If any changes are made to the selection options press the Search Now button to refresh the font list based on the new selections.

Selecting Fonts

The list of fonts will be presented alphabetically in the font list box.



- To select a font, click on it, each font selected will be highlighted.

Register

The Register button is used to install a selected font or group of fonts into EZ-Engrave. To install only selected fonts, highlight the required fonts in the Font List box, and then press the Register button.

Register All

Pressing the Register All button will install all available fonts from the selected disk into the EZ-Engrave program.

Installing New Fonts

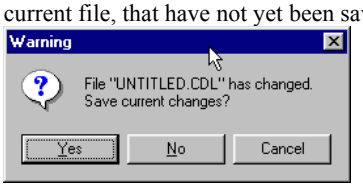
To install new fonts into EZ-Engrave:

- click on the Install Fonts option in the File menu;
- select the font type in the Font Type box;
- select the Source that the fonts are to be installed from;
- select the Directory where the fonts are to be installed (not required if using CD-ROM);
- press Search Now button;
- select the fonts to install from list available;
- press either the Register or Register All button, as appropriate; and
- press the Close button.

> ***Note:*** Fonts installed using the Install… Fonts… will be available for use in EZ-Engrave, but must be set up in the Font Detective Database to be accessed from Text Compose. For more information refer to Chapter 3 — Text Composition.

EXIT

The Exit command in the File menu is used to exit EZ-Engrave. If changes have been made to the current file, that have not yet been saved, a prompt to do so appears before the program closes.



Upon exit, EZ-Engrave saves all changes made to parameters in the various dialog boxes, Plotter Set-up, Printing, and so on. The next time that EZ-Engrave is started, these settings will appear by default.

Keyboard Shortcut: [Control + X]

EDIT MENU

UNDO

When selected, this command returns the image to the state prior to the last operation performed. If selected consecutively, it will Undo each previous operation. Because the information required by Undo is stored in memory, Undo as many of the previous actions as the amount of memory in the computer permits, with the following exceptions:

- only Undo the last five operations of the Graphic Creation tools;
- NOT Undo operations performed with the Zoom tool;
- NOT Undo operations performed with the File menu;
- NOT Undo the selection of objects.

Keyboard Shortcut: [Alt+Bksp]

REDO

When selected, this operation reverses the latest Undo. Perform as many Redo operations as there are Undo operations to reverse.

Keyboard Shortcut: [Control + Bksp]

PURGE UNDO

Selecting this option removes all Undo/Redo information from memory, releasing that memory for use by the program.

CUT, COPY & PASTE

One of the ways to exchange graphics files between different EZ-Engrave files or between EZ-Engrave and other Windows based programs is through the Clipboard. The Clipboard is a temporary storage area for items being swapped from one program to another.

Note: Swapping files from a different program into EZ-Engrave through the clipboard may result in some distortion to the graphic. This is due to the variety of methods by which Windows programs handle clipboard files. The clipboard should therefore be used to manipulate objects within a single program when dealing with graphics.

Cut & Copy Objects to the Clipboard

The Cut and Copy commands are very similar in that they both place copies of the selected object or objects into the clipboard for later retrieval. The difference between the two commands is that, while copy only copies the objects to the clipboard, Cut also deletes the original object from the EZ-Engrave Edit window.

Using the Clipboard in EZ-Engrave:

- Select the object(s) to be placed on the Clipboard using the Select tool;
- Click on either the Copy or Cut option in the Edit menu.

Using Copy places a copy of the selected object(s) in the Clipboard without affecting the original drawing in any way.

Using Cut places a copy of the selected object(s) in the Clipboard but removes the selected object(s) from the original drawing.

File formats that can be Cut or Copied to the Clipboard from EZ-Engrave include:

- any on-screen vector image (no fill information will be transferred);
- text characters; and
- BMP, PCX, or .TIF bitmaps imported into the EZ-Engrave view screen.

Keyboard Shortcut: For Cut: [Control + X], or [Shift+Del]
For Copy: [Control + C], or [Ctrl+Ins]

Pasting Objects From The Clipboard

To Paste an object from the Clipboard into a drawing:

- Click on Paste in the Edit menu.

The Paste command places a copy of the object(s) from the Clipboard into the drawing. Items in the Clipboard can be Pasted an infinite number of times into EZ-Engrave or other Windows applications. However, the clipboard will only hold one item at a time, and that item is deleted when another item is Cut or Copied to the Clipboard or when Windows is closed.

If an object was copied from another EZ-Engrave file, it will be pasted into the current drawing in the same size and location as it appeared in the original drawing. This can sometimes cause problems to the unwary for the following reason. If the object Copied (or Cut) into the Clipboard is significantly different in scale to the drawing into which the object is being pasted, it may be pasted onto a part of the current EZ-Engrave view screen that isn't immediately visible.

To see the Pasted object(s):

- click on Zoom tool and select the Zoom to selected tool, or
- Press the [F7] key.

File Formats that can be Pasted From the Clipboard into EZ-Engrave include:

- vector graphics from EZ-Engrave and some other design program;
- text characters (when the Text Compose tool is activated only); and
- BMP, PCX, or TIF bitmaps.

A powerful reason for using the Clipboard for swapping drawing files from one program to another is reduced file maintenance. When using the Clipboard, the drawing being swapped is not stored as a file on a disk but is stored in a temporary memory location. When a Windows session is ended, or if another item is Cut or Copied to the Clipboard, the old item is erased automatically. Because the file is committed to memory rather than saved to disk, use of the clipboard reduces the need to manage old unwanted files on the hard disk as would be required if Export /Import or Save/Open were the only routines available to transfer files between programs.

CLEAR

This command will delete any selected objects from the screen. Once deleted, the removed object can be returned only by implementing the Undo.

Keyboard Shortcut: [Del] key

DUPLICATE

This command creates a duplicate of the selected object on the screen. The duplicate will be drawn offset from the original by the amount designated in the General Preferences section of the Options… EZ-Engrave Setup… menu.

Keyboard Shortcut: [Control + D]

EDIT TEXT

This command will open the Text Compose tool to allow editing of the existing text. This applies to text which has been generated in the current session with the Text Compose tool, or text which is part of a .CDL file that has been retrieved using the Open or Import commands. To edit text:

- click on any character in the text string to select the text string;
- Select Edit Text from the Edit menu.

The Text Compose tool is activated, editing text follows the same rules as composing original text.

Keyboard Shortcut: [Control + T] (text must be selected)
Double-click on selected text.

EDIT NOTES

Use Edit Notes to make changes to any existing notes in the file. This feature is available only when one (and no more than one) note is selected. Selecting this option opens the Edit Notes dialog box.

Note*:* For more information on the creation and editing of notes, see the earlier section of this chapter, titled The Measure Tool.

EDIT PATH

Any graphic objects that are on the view screen, whether created with the Graphic Creation tools, text, or imported as a graphic or text from another program, can be changed with the editing tools in EZ-Engrave. These editing tools allow for customizing of these drawings or fonts, or for quick clean up of artwork created from the AccuScan scanning module. In all cases, the basic principles involved in editing graphics include changing the location for line nodes, or changing the line segments themselves.

To edit a graphic object on the screen:

- choose the Edit Path option from the Edit menu.

The Edit toolbox will appear on the screen. Use of the tools in the toolbox are described in the section explaining the use of the Graphics Creation tool, earlier in this chapter.

Keyboard Shortcut: [Control + E]

EDIT FONT

The Edit Font feature is only available with the module that includes Font Maker for font creation and editing please refer to Chapter 9 — Font Create / Edit for more information.

SELECT ALL

This command provides the ability to select all objects in active color layers on the screen without having to draw sweep-select or click on individual objects.

Keyboard Shortcut: [F3] key
[Control + A]

SELECT NONE

This command provides the ability to de-select all objects in active color layers on the screen without having to draw sweep-select or click on individual objects.

Keyboard Shortcut: [Shift+F3]

INVERSE SELECT

By choosing this option all selected objects in the active color layer become de-selected, while all un-selected objects are selected.

Keyboard Shortcut: [Alt+F3]

REDRAW

This command refreshes the screen to erase any extraneous images that have appeared on the screen in the course of the editing session (i.e., ghosting).

Keyboard Shortcut: [Alt+D]

DIGITIZING SETUP

Selection of this option produces the Digitizing Setup dialog box. The Digitizing for EZ-Engrave will interface directly with a digitizing tablet, no other intermediary software drivers are required. EZ-Engrave also provides some features specific to digitizing.

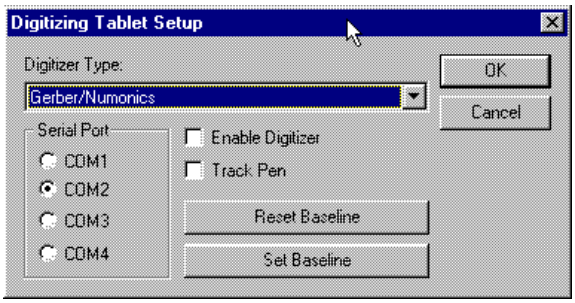
Using A Digitizer With EZ-Engrave

To use a digitizer with EZ-Engrave, a supported digitizing or graphics tablet must be connected to a Serial port (COM1, COM2, etc.) on the computer. Use the serial cable that came with the digitizing tablet to connect to the PC, according to the manufacturer's recommendations.

The serial port does not require setup, as EZ-Engrave configures it automatically. However, make sure that it is a fully functional port, with the correct address and interrupt (IRQ) set in Windows. If there are any doubts, refer to the documentation that came with the PC, or contact the PC manufacturer.

Finally, the Digitizing Module is not designed to work with the stylus (or "pen") often packaged with a digitizer. In order to take full advantage of EZ-Engrave's digitizing capabilities, a digitizing puck (or "mouse") must be attached to the tablet.

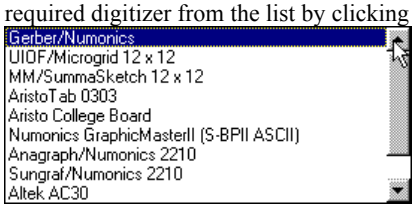
Configuring the Digitizer



After the digitizer has been properly installed, turn on the computer and run EZ-Engrave normally. The digitizer must now be configured and enabled. Begin by clicking on Digitizing Setup in the Edit menu. Within the Digitizing Tablet Setup dialog box, perform the setup and specify the preferences.

Digitizer Type

The Digitizer Type pull-down menu identifies the tablets available for use on the system, select the required digitizer from the list by clicking on it.



Note: Not all digitizers will be supported directly by EZ-Engrave, however, most will provide an "emulation" mode, (i.e., the digitizer might imitate a Summa Graphics Tablet, though produced by another manufacturer).

Serial Port

The Serial Port box verifies the port through which the digitizing device is connected, ensure that the appropriate port is selected.

Enable Digitizer

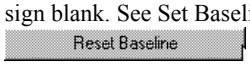
This check box is used to enable and disable the digitizer. In order to reduce the load on the system, it is recommended that the digitizer be disabled when not in use. This will prevent EZ-Engrave from polling the tablet, and therefore free up system resources.

Track Pen

This check box is used to enable and disable the tracking of the digitizing pen. In order to reduce the load on the system, it is recommended that the digitizer be disabled when not in use. This will prevent EZ-Engrave from polling the tablet, and therefore free up system resources.

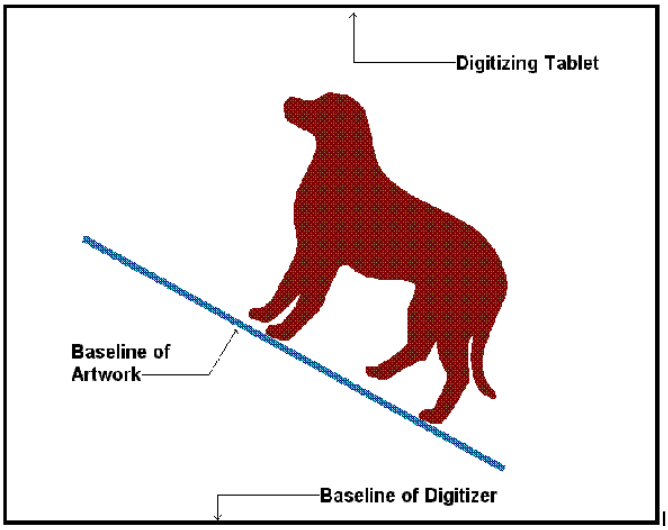
Reset Baseline

When starting a new drawing, or if the original angle and position of the tablet's baseline need to be restored, select the Reset Baseline option. The baseline of the tablet will be reset to match that of the sign blank. See Set Baseline below for more information regarding baselines.



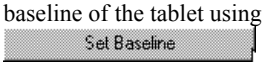
Set Baseline

The baseline of a drawing defines both the bottom of the artwork, and the angle of the horizontal axis.



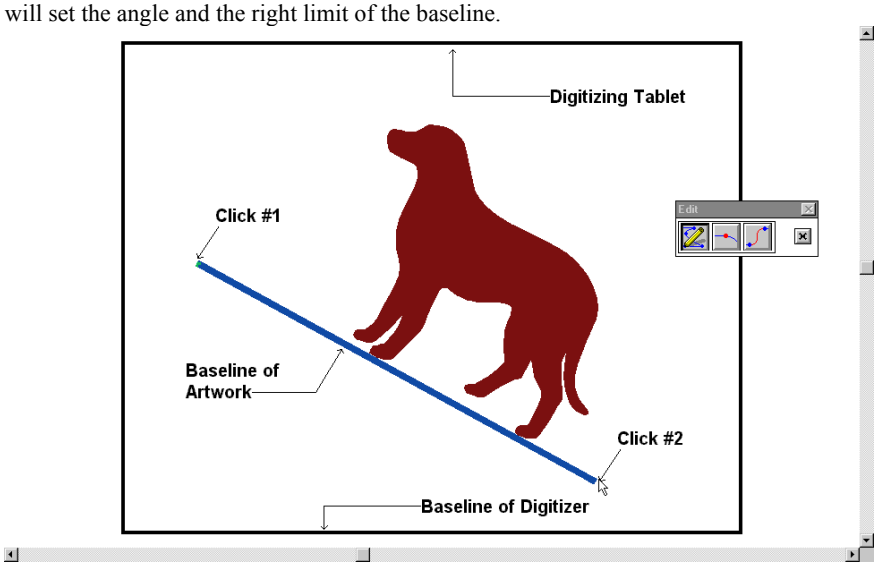
Typically, a digitizer automatically sets the baseline as the bottom of the tablet (i.e., lower left to lower right corner of the digitizing area). If a baseline is not set, EZ-Engrave will also set the bottom of the digitizing tablet as the baseline for the artwork.

It is often difficult, if not impossible, to be get artwork to line up exactly with the bottom of the tablet. For example, in the diagram above the horizontal for the artwork is not the same as horizontal on the digitizing tablet. EZ-Engrave will set the baseline to reflect the that of the artwork, rather than the baseline of the tablet using the Set Baseline command.



Set Baseline compensates for rotation of artwork on the digitizing tablet, eliminating the requirement that artwork be exactly straight on the digitizing tablet. Pressing Set Baseline closes the dialog box, while opening the graphic edit mode.

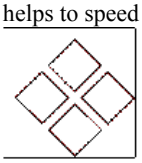
The next two clicks of the top button on the digitizing puck will define the horizontal baseline of the artwork. The first click will define the origin point (or left limit) of the new baseline, and the second will set the angle and the right limit of the baseline.



After the baseline is set, EZ-Engrave will operate in drawing mode, and the artwork can be digitized and saved using all the design tools available with EZ-Engrave.

Using the Digitizer

Now that the digitizing tablet is properly configured, digitizing artwork can begin. EZ-Engrave responds to the four buttons on a standard four-button puck in very specific and predictable ways, this helps to speed the process.



There are four buttons on the traditional digitizing puck, usually arranged in a diamond shape. The buttons may be square or round, depending on the puck, and each has very specific functions. Therefore, it may be easier to refer to each of them by a descriptive name.

The Corner Button

The top button is used to create corner nodes, and is therefore referred to as the Corner Button. Each time the Corner Button is pressed, a corner node is placed on screen in the drawing.

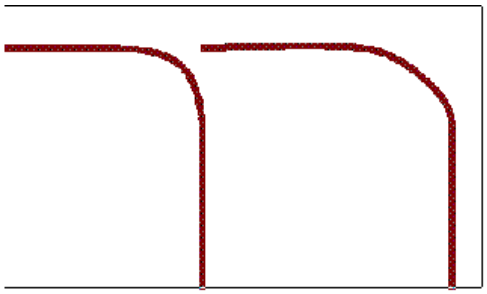
The Curve Button

The button on the left hand side of the puck will place a curve node on the screen. It is therefore referred to as the Curve Button. Note that a drawn curve requires at least three nodes to complete, however, only the middle node of the three must be a curve node in order to create a curved line segment.

Note: The curve nodes drawn by the digitizer are different from those drawn by the mouse in standard draw mode. Draw mode uses the nodes as control handles that pull at the curve as it is formed, while a curve drawn in digitizing mode will pass directly through the nodes as they are placed.

The Tangent Button

The bottom button on the puck is used to create tangent nodes, and hence is called the Tangent Button. Tangent nodes, when placed between a line segment and a curve segment, change the shape of the transition from line to curve. For example, a line ending with a corner node will have a definite corner where the curve begins, while a line ending with a tangent node will run smoothly from line to curve with no visible corner.



The Finish Button

The last button supported by EZ-Engrave is the button on the right of the digitizing puck. It is used to end and close contours, or to create custom defined shapes, and is called the Finish Button.

To finish a contour, click the Finish Button, and the next node drawn will begin a new contour. If the contour being drawn is to be closed, double-clicking the Finish Button will draw a line connecting the last node with the first, closing the object.

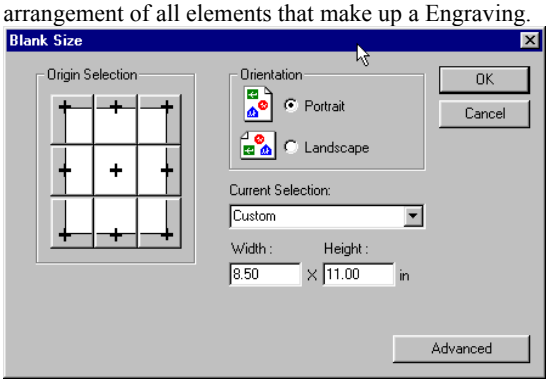
The Finish Button can be used with the Corner Button to define “fitted” rectangles. If a corner node is drawn at any two opposite corners of a rectangle on the digitizing tablet and the Finish Button is double clicked, EZ-Engrave will calculate the actual shape and size of the required rectangle and draw it on-screen.

The Finish Button will also work in combination with the Curve Button to define circles. Click two curve nodes representing the diameter of a circle, then double click the Finish Button, EZ-Engrave will draw a circle defined by the set diameter. If three points around a circular object on the tablet are set and the Finish Button is double-clicked, EZ-Engrave will fit a circle to the three points. If four or more points are set, EZ-Engrave will draw a circle that best fits the points drawn.

LAYOUT MENU

BLANK SIZE

This option defines and places a representation of a Sign Blank onto the screen, ensuring that Engravings are created to exact size specifications. This is also useful in visualizing the spatial arrangement of all elements that make up a Engraving.



Orientation

The Orientation for the Sign Blank can be set to either Portrait or Landscape depending on the current project requirements.

Current Selection

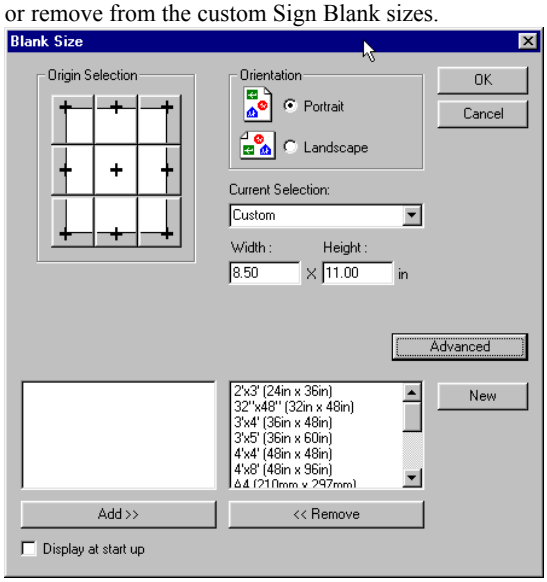
EZ-Engrave software comes with a variety of preset Sign Blank sizes for those standard Engraving sizes most often used. To use a preset Sign Blank size simply select from the list provided.

Width & Height

Blank size will set the measurements based on the unit of measurement specified in the General Preferences dialog box available from the Options… EZ-Engrave Setup… menus.

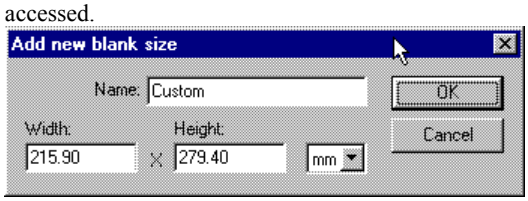
Advanced

When the Advanced button is pressed the articulated dialog box opens. Providing the ability to add to or remove from the custom Sign Blank sizes.



New

Pressing the New button opens the Add New Blank Size dialog box. Enter the name for the new size is the Name box, enter the Width and Height respectively, and adjust the unit of measurement if required (be aware, the height and width values do not change when the unit of measurement is changed). Press OK to accept the new Blank Size. The New Blank Size will appear in the Current Selection lists, however it will only appear in the Advanced list of sizes available the next time Blank Size is accessed.



Add

Any custom sizes that have been removed from the standard list can be added by selecting from the Add list and pressing the Add button.

Remove

To limit the number of Blank Sizes listed in the standard Blank Size dialog box, access the Advanced tools in the articulated box, select any preset Blank Sizes that are not frequently used from the list and press the Remove button. This process simply moves the files to the list over the Add button. To be able to use the preset again it must be selected and Added to the available list.

Display at start up

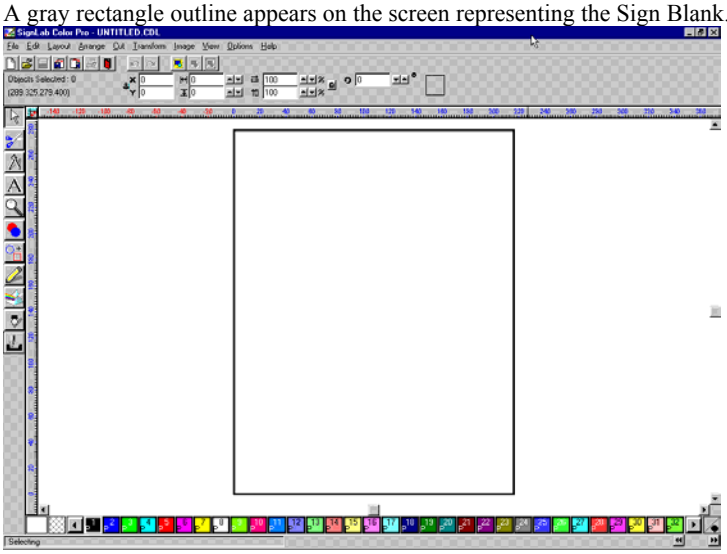
To access the Blank Size dialog box every time a new editing session is started, place a check mark beside the Display at start up option. Until the check mark is removed, the Blank Size dialog box will open whenever the New option from the File menu is selected, or whenever EZ-Engrave is started.

Set the Blank Size

To set the blank size:

- click on the Blank Size option from the Layout menu, the Blank Size dialog box opens;
- change the Width and Height values to establish dimensions for the Sign Blank, or simply select from the available preset Blank Sizes;
- click OK to accept these values.

A gray rectangle outline appears on the screen representing the Sign Blank.



***Note**:* The Sign Blank will appear on screen when the Show Sign Blank option in the View menu is selected. When the Sign Blank size is changed, this option is automatically selected.

START SEQUENCE

This option allows for specification of the order for drawing, cutting, plotting, routing, engraving, or printing objects. The objects will then be drawn, routed, etc… starting from the first object chosen, in order, to the last object chosen.

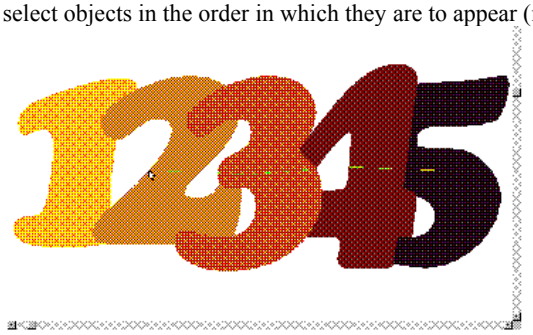
If a series of objects, but not all objects, are re-ordered, the re-ordered objects will be placed (and therefore drawn, routed, etc…) starting from the original layer of first object selected.

Using Start Sequence

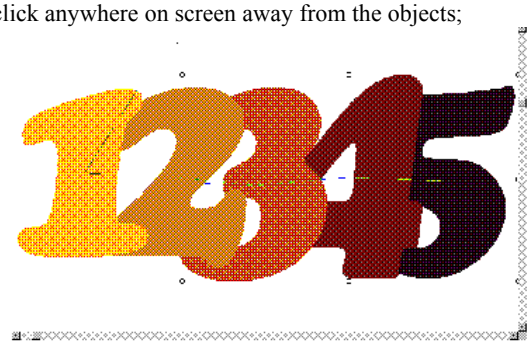
To re-order a number of objects:

- select the object to be drawn/routed first;

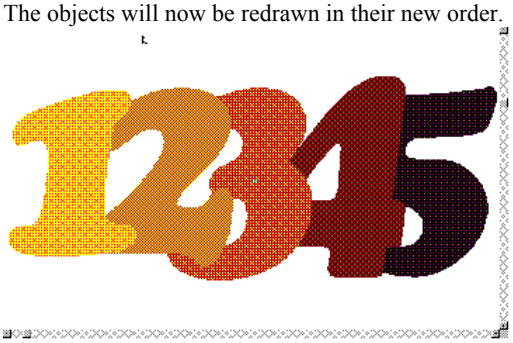
- select Start Sequence from within the Layout menu;
- select objects in the order in which they are to appear (i.e., select from first drawn to last)



- click anywhere on screen away from the objects;



The objects will now be redrawn in their new order.



Re-Alignment Using Start Sequence

The Start Sequence feature can also be used to re-align the selected objects. To align the centers of each of the objects along a line:

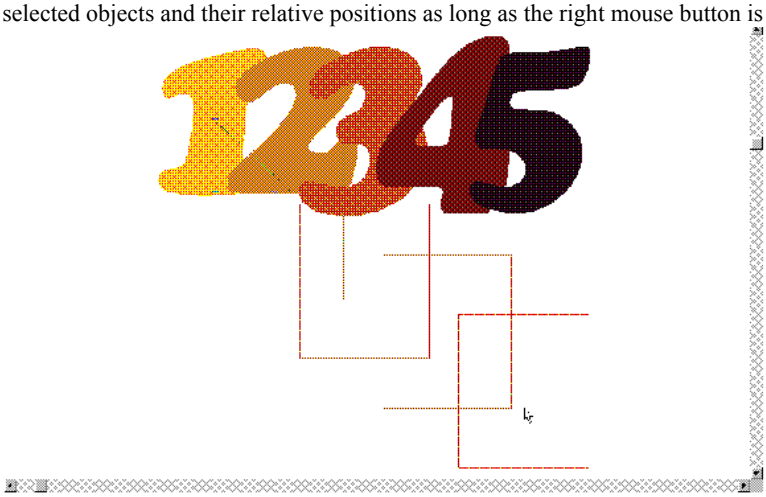
- Select the objects to be aligned either while in the Start Sequence mode, or just prior to selecting Start Sequence.

The starting point of the line along which the objects will be placed will appear at the center of the first-selected object.

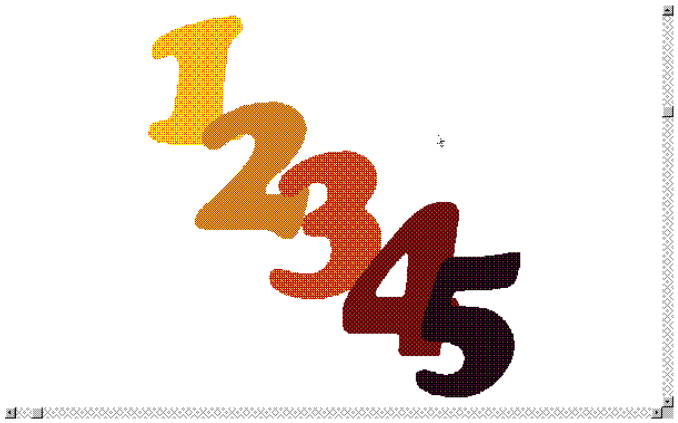
- Right mouse click on the point where the last object in the line is to be placed.

The objects will now appear along the specified line, center-aligned to the line and evenly-spaced.

For diagonal alignment, click the right mouse button, and, while continuing to hold the button down, move the line around the view screen. Wire-frame boxes will appear on screen representing the selected objects and their relative positions as long as the right mouse button is held.



Upon release of the mouse button, the objects will be placed along the specified line, center-aligned to the line and evenly spaced.



By pressing and holding the [Shift] key while defining the alignment line, the objects will be aligned by their lower left-hand corner rather than by their centers.

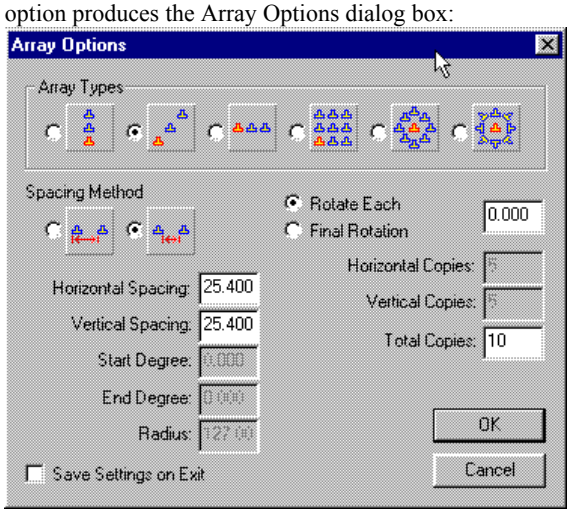
By pressing and holding the [Control] key while defining the alignment line, the line can be constrained to exactly vertical or horizontal.

DECORATIVE BORDERS

EZ-Engrave provides the ability to apply a pre-defined frame or Decorative Border to selected elements of artwork. The Decorative Borders are also available from the Shapes tool in the tool bar. Left mouse clicking on the tool applies the currently set border, right mouse clicking opens the Decorative Border dialog box. These are explained in detail in the Shapes section, for more information refer to the Shapes section earlier in this chapter.

ARRAYS

The Array option allows you to create a pattern using the selected object or objects. Selecting this option produces the Array Options dialog box:



Array Types

This section of the Array Options dialog box is used to specify the pattern being generated using the Array function. Each array type is displayed graphically as it will appear on screen. The original appears in red in the default position it will occupy.

 . The Vertical Array type places copies of the original object into a single column above the original object. Negative Vertical Spacing will cause the array to be created below the original object.

 . The Diagonal Array type arranges copies of the original object above and to the right of the original. Negative Vertical Spacing causes the array to be created below the original object, while negative. Horizontal Spacing will cause the array to be created to the left of the original object.

 . The Horizontal Array type arranges copies of the original object in a row to the right of the original. A negative Horizontal Spacing will cause the array to be generated to the left of the original object.

 . The Rectangular Array type arranges copies of the original object in rows above and to the right of the original object. Negative Vertical Spacing causes the array to be created below the original object, while negative Horizontal Spacing will cause the array to be created to the left of the original object.

 . The Circular Array type arranges copies of the original object in a circle in which the original object is placed, by default, at the top center position in the array. The size of the arc (or section of the circle) actually occupied by the array, may be set by specifying a Start and End Degree. Objects are generated in a clockwise manner.

 . The Rotated Circular Array type arranges copies of the original object in a circle in which the original object is placed, by default, at the top center position in the array. Each object is rotated such that its base is on a tangent to the circle at the position at which the object appears. The size of the arc (or section of the circle) actually occupied by the array, may be set by specifying a Start and End Degree. Objects are generated in a clockwise manner.

Spacing Method

The Spacing Method option defines the spacing of objects using Horizontal and Vertical Spacing.

 The first option calculates spacing as the distance between the lower left corner of each object.

 The second option calculates the actual distance between objects as follows:

- Horizontal Spacing is defined as the distance between the trailing edge of the first object and the leading edge of the second.
- Vertical Spacing is defined as the distance from the top of the lower object to the bottom of the object above.

Rotate Each

This setting forces each object in the array to be rotated a by a set amount. This option is not available when applying an array that already calculates rotation as a part of its function (i.e., the Circular Rotated array).

Final Rotation

This setting specifies the rotation of the final copy of the selected object, and then applies intermediary rotations accordingly to all objects in the array between the first object and the last. For example, if a Final Rotation of 90° is set for 3 copies, the first copy will be rotated - 30° the second - 60°, and the final copy - 90°, as specified in the Final Rotation setting(i.e., 90°/3).

Horizontal Spacing

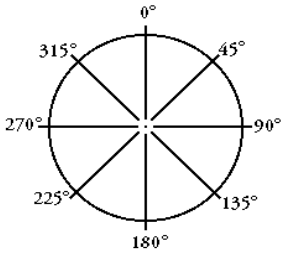
This entry box specifies the horizontal distance between each of the copies of the object in the array. The method by which the objects are spaced is governed by the selected Spacing Method as discussed above. This setting is only available when the selected Array Type incorporates a horizontal component, and is otherwise grayed-out.

Vertical Spacing

This entry box specifies the vertical distance between each of the copies of the object in the array. The method by which the objects are spaced is governed by the selected Spacing Method as discussed above. This setting is only available when the selected Array Type incorporates a vertical component, and is otherwise grayed-out.

Start Degree

This setting is available only when the Array Type chosen is circular. It is used to specify the position of the first object in the array in degrees from vertical. For example, an object that is at the 12:00 position of a circle would be defined as being at 0°, while an object at 3:00 would be defined as being at 90°, an object at 6:00 is at 180°, and so on.



End Degree

This setting is available only when the Array Type chosen is circular in shape. It is used to specify the position of the last object in the array in degrees from vertical. See circle graph above.

Radius

This entry box defines the radius of the circle (i.e., measurement from the center of the circle to the edge) around which objects in circular arrays will be placed. This setting is defined in the current unit of measurement, and is available only when a circular array is selected.

Horizontal Copies

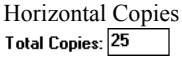
This edit box specifies the number of objects to be placed in each row of the selected array. This option is available only for those arrays which include a horizontal component.

Vertical Copies

This box specifies the number of rows to be generated by the selected array. This option is available only when an Array Type which incorporates a vertical component is selected.

Total Copies

This box specifies the total number of objects to be contained in the array, and is always equal to the Horizontal Copies multiplied by the Vertical Copies.



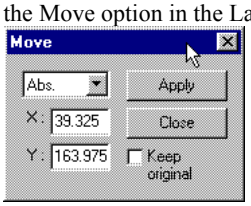
Note: The numbers that appear in the Horizontal, Vertical, and Total Copies boxes must be whole numbers. Any decimal numbers will be truncated to a whole number.

Save Settings On Exit

This check box saves the changes made to the Array Options dialog box when the box is exited by pressing the OK button. If the dialog box is exited by pressing the Cancel button, all changes made will be lost.

MOVE

The Move option accurately moves selected object(s) to "absolute" coordinates relative to the (0,0) origin point on the screen. Objects can also be moved "relative" to their present position. Clicking on the Move option in the Layout menu produces the Move dialog box:



The Scroll box is used to specify the type of move to perform. Clicking on the scroll arrow reveals the two choices available, Relative and Absolute.

Relative

Selecting Rel will result in the object moving to a position relative to its current position (i.e., objects move X inches to the left).

Absolute

Absolute movements will cause the object to move to a specified position on the sign blank (i.e., objects move to a specific position on the sign blank).

X Coordinates

If a relative move is specified, a positive value for the X box moves the object to the right and a negative value moves it to the left. If objects are moved to an "absolute" position relative to the Sign Blank, enter the X coordinate in the X entry box.

Y Coordinates

If a relative move is specified, a positive value for the Y box moves the object upward, and a negative value moves it downward. If objects are moved to an "absolute" position relative to the Sign Blank, enter the Y coordinate in the Y entry box.

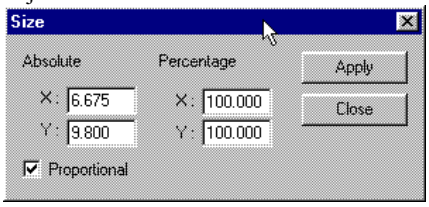
Keep Original

Creates a duplicate object at the set coordinates, and leaves the original object unaffected.

> ***Note:*** A shortcut method to access the Move option — click on one of the nubs around the selected objects, right click and select Move from the pop-out Layout menu. The selected nub is moved to the designated coordinates rather than the lower left nub.

SIZE

The Size option re-sizes the selected object to any dimensions without affecting the size of other objects on the screen. Select Size from the Layout menu to access the Size dialog box:



From within this dialog, the size of the selected objects can be changed by editing the X and Y values which represent the size of the object. Clicking on Apply will force the selected object(s) to the specified dimensions and leave the Size dialog box open, while clicking on the Close button will close the Size dialog box. If the Close button is selected without having selected the Apply, no sizing is applied.

There are two choices available for sizing selected objects, Absolute and Percentile. Changing the value of the X coordinate in the Absolute settings is reflected in the Percentage X coordinate settings.

Percentage

Selecting % will result in the object being sized relative to its current size (i.e., 200% sizes the object to twice the original size).

Absolute

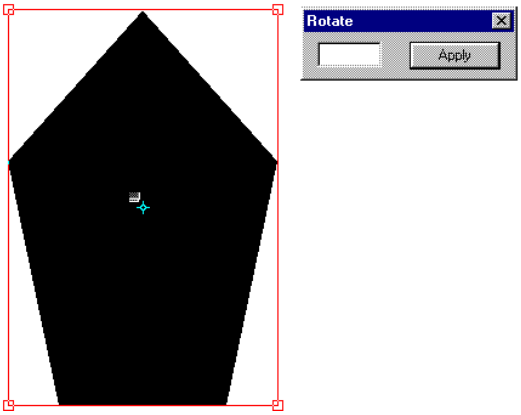
Absolute sizing causes the object to be sized to a specific measurement (i.e., objects is sized from 2 inches square to 1 inch by 3.02 inches).

Proportional

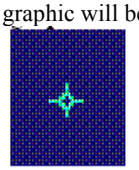
Select this option to re-size the selected object(s) while maintaining current proportions. If Proportional is selected, edit one of the X or Y dimensions. The Proportional option will cause the object or objects to maintain their aspect.

ROTATE

The Rotate option rotates selected object(s) around a designated point. Clicking on the Rotate option in the drop-down menu produces the following dialog box:

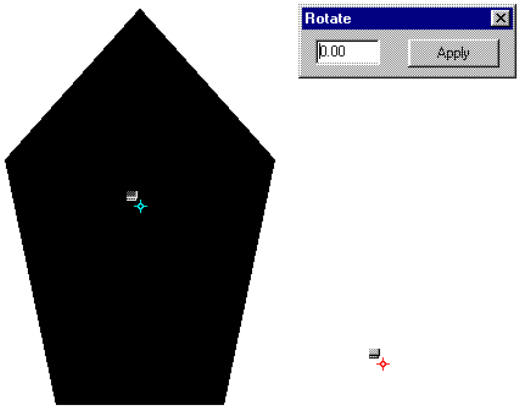


The small "+" superimposed on the center nub of the selected object is the point around which the graphic will be rotated.



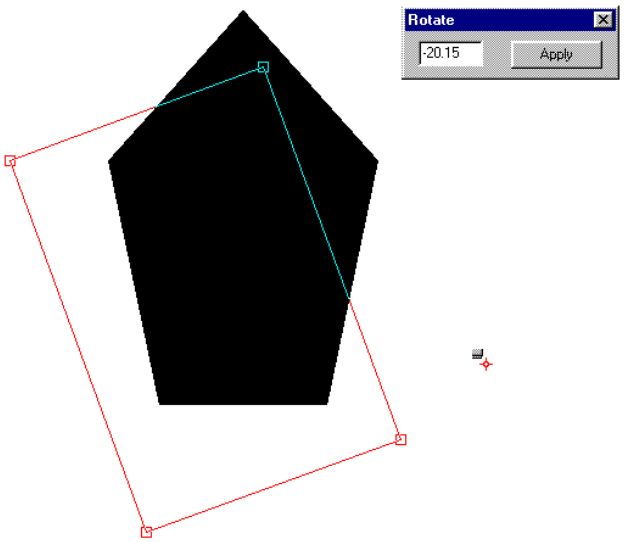
This "+" can be moved to any position, and the object rotated as follows:

- Drag the "+" rotational point with the mouse to the location which you wish to become the center of rotation.

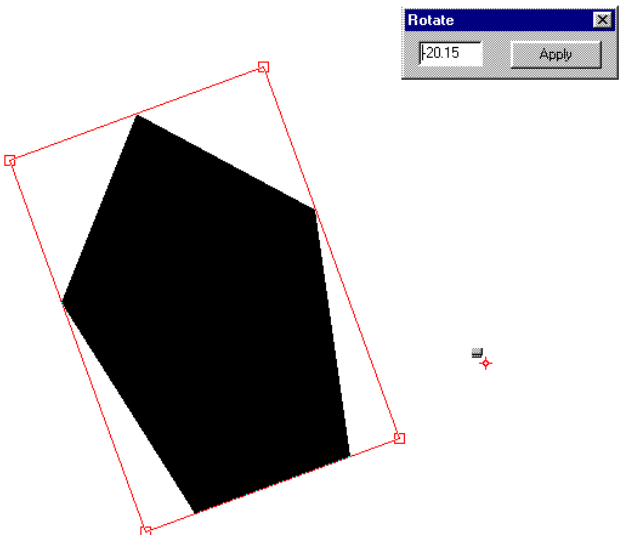


- Rotate the object around this "+" point by selecting any of the outside nubs and dragging the bounding box with the mouse. The degree of the rotation will be shown in the Rotate dialog box (positive values represent clockwise rotations and negative values represent

counterclockwise rotations).



➢ Click on Apply to accept or the X to cancel the rotation and return to the EZ-Engrave screen. If accepted, the object will rotate to the new location of the bounding box.

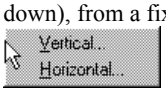


Rather than manually rotating the graphic, enter values directly into the dialog box. This gives more precise control over the rotation of the objects.

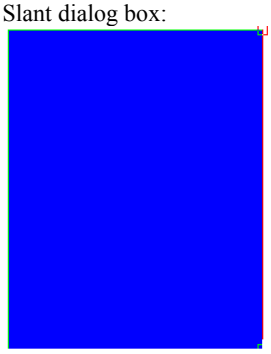
***Note**:* If a nub is clicked with the right mouse button to access the layout menu, the "+" rotational point would appear on the selected nub.

SLANT

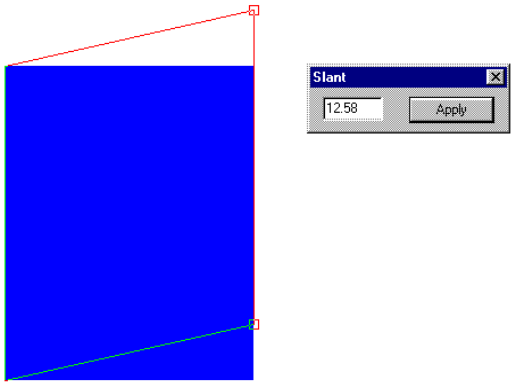
The Slant option skews or slants selected object(s) horizontally (left or right), or vertically (up or down), from a fixed baseline.



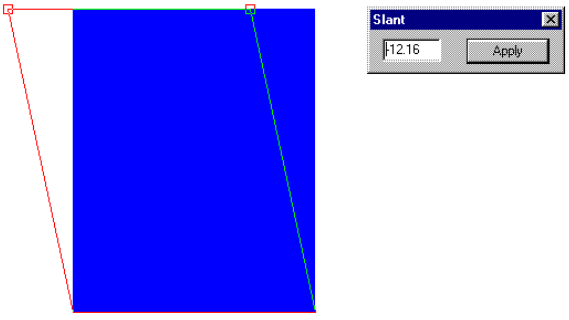
Clicking on the Slant Horizontal option or Slant Vertical option from the fly-out menu produces the Slant dialog box:



- If the Slant Vertical option had been chosen, select one of the corner nubs and drag it with the mouse up or down to skew the bounding box.



- If Slant Horizontal is selected, the corner nubs can be dragged to the left or right rather than up or down.



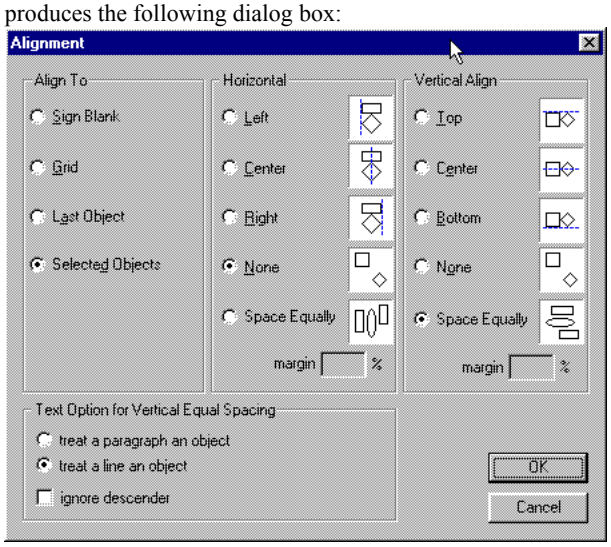
In either case, the amount of slant will be displayed in the dialog box. Positive values represent a slant to the right or slant up, while negative values represent a slant to the left or slant down). Selecting Apply, applies the slant, leaving the Slant dialog box open. Selecting the X closes the Slant dialog box without applying the change, unless Apply is selected first.

CLEAR TRANSFORMATIONS

The Clear Transformations removes all Move, Rotate, Size, and Slant transformations applied to polyarcs or text objects without Undoing any edits made to the object. For example a line of text can be rotated and then edited to include an extra letter, Clear Transformations will remove the rotation from the text while the extra letter remains a part.

ALIGNMENT

The Alignment option precisely aligns selected objects, as well the default Alignment settings for use by the Align command can be set (see Align, next). Clicking on Alignment in the Layout menu produces the following dialog box:



Align To

This section of the Alignment dialog box is used to specify the reference point to which the selected objects will be aligned.

SignBlank ..... Click on the Sign Blank radio button to align objects relative to Sign Blank.

Grid Selecting Grid will align the selected objects with the grid as defined in the Preferences dialog box. (This box is accessible through the Options menu, and will be discussed later in the section entitled The Options Menu).

Last Object ..... The Last Object option is used to align a group of objects to one of the objects in the group. When aligning a group of objects to a single object, make certain that the object used to align the others is selected last.

Selected This option aligns a group of objects to the bounding box that surrounds the objects.

Horizontal Section

This section is used to specify the horizontal alignment parameters by which the selected objects will move laterally to align to the specified reference point (i.e., side to side). Choose from align to the Left, Right, or Center of the selected horizontal reference point, or choose not to align objects horizontally at all by selecting the None option.

Space Equally will take all the selected objects and space them equally within the Align To settings, set a percentage offset from the Align To Sign Blank with the Margin settings.

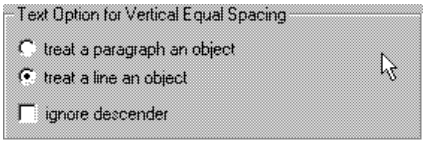
Vertical Section

The Vertical Section of the Alignment dialog box allows for specification of how the objects are to be aligned to the reference point vertically. Objects will move up or down to align to the Top, Bottom, or Center of the specified reference point. Or choose not to align vertically by selecting the None option.

Space Equally will take all the selected objects and space them equally within the Align To settings, set a percentage offset from the Align To Sign Blank with the Margin settings.

Text Option for Vertical Equal Spacing

There are two options for how the Align feature will treat text when spacing equaling along the vertical. The text can either be treated as a separate object for every paragraph, or as a separate object for every line. Both of the options can be set to ignore the descender of the text and align to the baseline.



Keyboard Shortcut: [Alt+K]

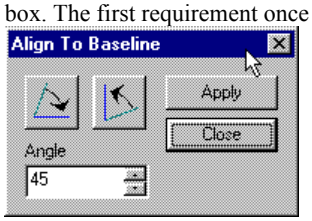
ALIGN

The Align option provides quick access to the parameters set in the Alignment menu. Selecting the Align command causes the selected objects to be aligned based on the current settings in the Alignment menu.

Keyboard Shortcut: [Control+K]

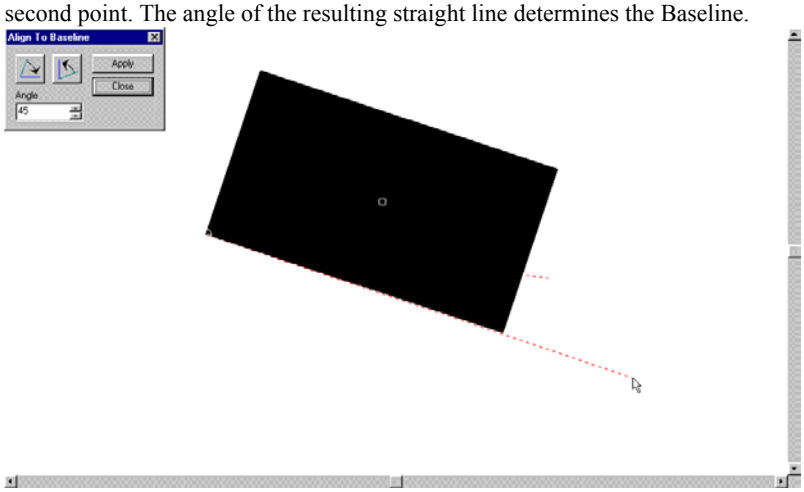
ALIGN TO BASELINE

With the object to Align selected choosing the Align to Baseline opens the Align to Baseline dialog box. The first requirement once the Align to Baseline dialog box is open is to set the baseline.



Set the Baseline

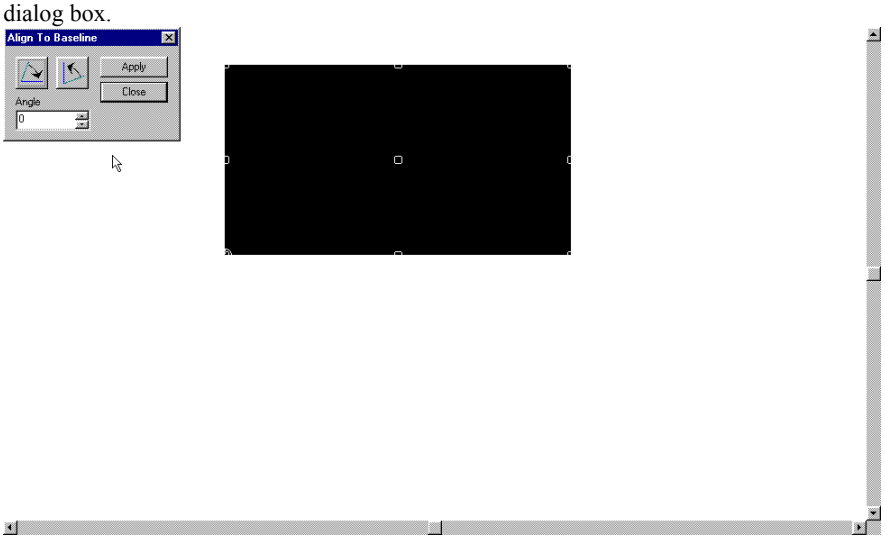
To set the baseline click in the location to place the first point of the baseline, a target node will appear where the cursor selected, immediately following the first point selection click in the location for the second point. The angle of the resulting straight line determines the Baseline.



Align Objects to the Set Baseline

Align Horizontally

To align horizontally to the baseline, select the Align Horizontal icon on the Align to Baseline dialog box.



Align Vertically

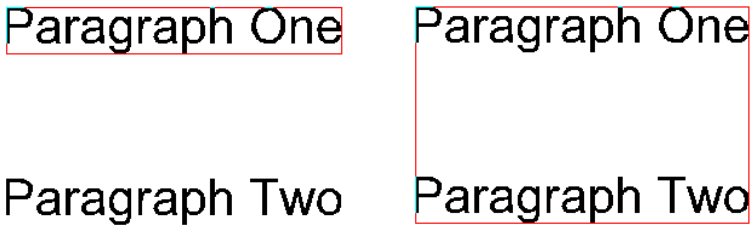
To align vertically to the baseline select the Align Vertical icon on the Align to Baseline dialog box.

Align to Angle

To Align to a specific Angle, enter the Angle value in the Angle entry box and press Apply.

MERGE PARAGRAPHS

With the two text blocks selected choosing this menu option causes the text to merge into one paragraph.



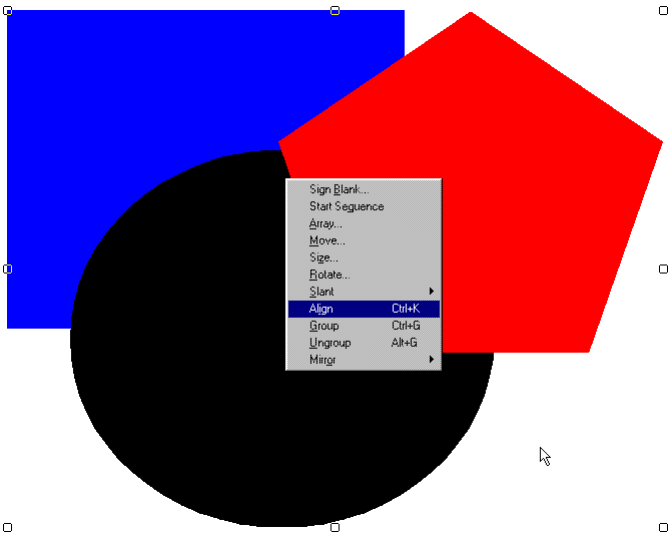
GROUP

The Group command combines two or more selected objects into a single group object, so that they will be treated as a single object when selected.

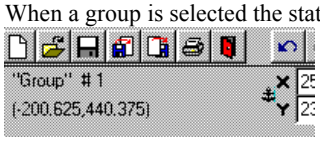
To form a group:

- select the objects to include in the group; then
- choose the Group option from the Layout menu.

The objects are now the components of a group which will be treated by EZ-Engrave as a single object.



When a group is selected the status bar will read Group # X.



Groups can also be Grouped, two or more groups can be combined together into a larger group where required. An example of this is text created with the Text Compose Tool. The Text Compose tool generates text in groups, as follows:

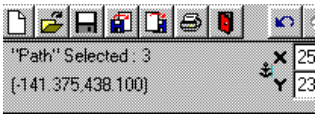
- each line of text is actually a group of letters; and
- each paragraph of text is actually a group of lines of text

In effect, a paragraph of text is a group of groups.

UNGROUP

The Ungroup option applied to a selected group will reverse a previous Group command and return all the constituent items in a group to individual item status.

In order to select a single character of text from a paragraph of text composed with Text Compose, it is necessary to first Ungroup the paragraph into its individual lines and then Ungroup the individual line into its constituent characters.



MIRROR

The Mirror option creates a mirror image of the selected object. Selecting Mirror from the Layout menu produces a fly-out menu with two options: Vertical, and Horizontal. A Mirror, Vertical command will create the reflection of the selected object as if a mirror was held horizontally beneath.

A Mirror, Horizontal command produces an image that is the result of holding a mirror to one side of the object. In both cases, the new object replaces the original object.

AUTOLAYOUT

The AutoLayout feature is explained in full detail in the Text Compose chapter of this manual under the heading Text AutoLayout (pp.3-37). The AutoLayout and Text AutoLayout features work in the same manner, except that AutoLayout is for use specifically with graphics, where the Text AutoLayout combines the Layout capabilities for both Text and Graphics.

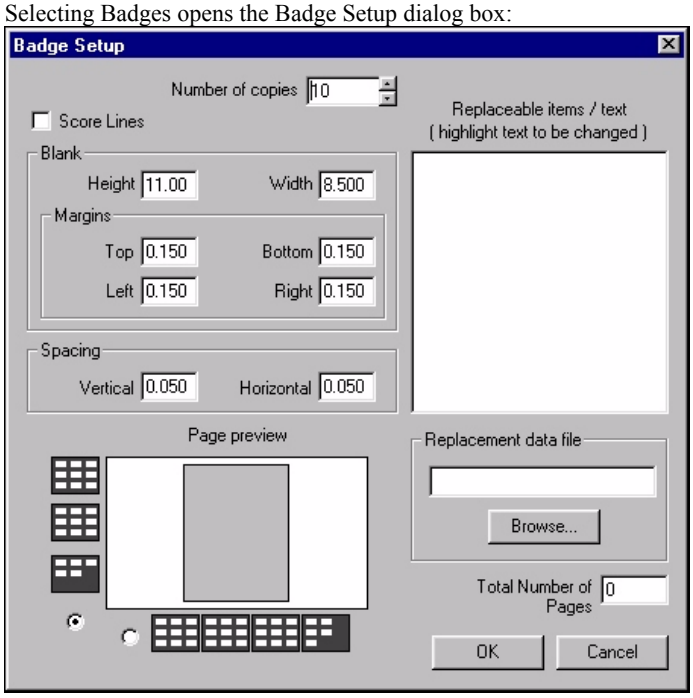
BADGES

This option provides the ability to create copies of a design while replacing the text in each copy. Each copy can include elements common to all copies, as well as elements unique to each copy.

For Example, a series of nameplates for doors in a office building, where the plates include the company logo, employee name, employee position, and room number, can be produced automatically by creating a single example, and then using the Badges function.

Within Badges, specify that the employee names, positions, and rooms numbers are unique. Badges then generates the specified number of plates as per instructions.

Selecting Badges opens the Badge Setup dialog box:



Number Of Copies

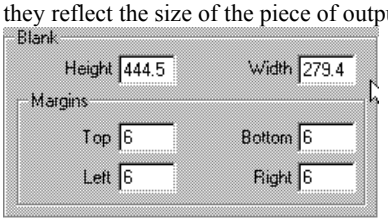
Specify the number of copies Badges is to generate in this box. If a data file is specified, and fewer copies are specified than lines of data in the file, Badges will use only the data that will fit the number of copies required (i.e., ten copies selected, but twenty employees listed in data file, the first ten employee names will be inserted).

Score Lines

Selecting this option causes EZ-Engrave to insert a grid that separates each copy to be created (i.e., each copy of the template will be enclosed in a box separate from the others). This can be particularly useful if copies are to be routed and separated later in the production process.

Blank Size

Specify the layout of the material in order for Badges to generate the copies required. Edit the boxes so they reflect the size of the piece of output material.



Routing Or Engraving...

It is recommended that the Height and Width be set to the exact dimensions of the material.

Rendering An Engraving

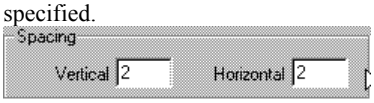
Set Height and Width to match the page size set for the plotter.

Margins

Specify Top, Bottom, Left , and/or Right margins for the page. These margins are applied to the routable area of material, not necessarily the actual size.

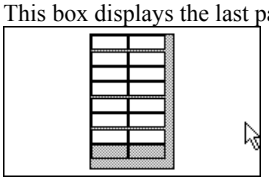
Spacing

Set the Vertical and Horizontal spacing, this causes EZ-Engrave to leave space between each copy, as specified.



Page Preview

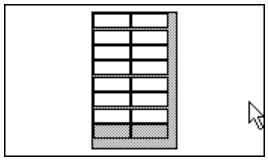
This section graphically displays the layout of the page as specified with Size, Spacing, and Margins. This box displays the last page generated by Badges, which may not be completely filled.



Where the last page is not completely filled by the copies requested, those objects to be placed on the last page will be drawn as white rectangles, while the general layout of all previous pages will appear as black outlines.

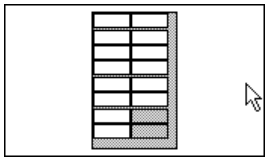
Horizontal/Vertical Placement

The Horizontal/Vertical Placement radio buttons are used to determine the output order of the copies generated by Badges. Horizontal placement causes copies to be placed across the material before dropping to the next plate of copies below. If Vertical Placement is selected, EZ-Engrave arranges the copies from top to bottom on the screen — as many as will fit on the material before moving to the right and beginning another plate of copies.



Horizontal

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16



Vertical

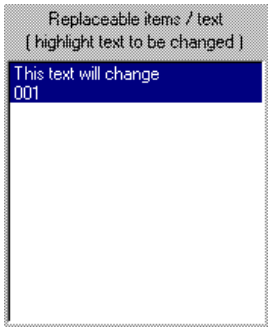
1	5	9	13
2	6	10	14
3	7	11	15
4	8	12	16

Total Number of Pages

This dialog tells the number of pages required to complete the specified number of pages using the current layout settings.

Replaceable Items

This list box displays all of the text present in the template, this text can be replaced automatically in the copies. A standard Windows selection box, select the replaceable text by clicking individual items, [Shift-click] to select continuous lists of items, or [Ctrl-click] to select a number of individual items. Items are de-selected in the same fashion.



***Note**:* If no items are selected for replacement, the Badges feature will create the required copies with no text replacement (i.e., it will simply create exact duplicates of the selection of objects).

Replacement Data File

This entry box is used to specify the name of the file containing the information to be placed in the copies of the template. EZ-Engrave's Badges function accepts a 'tab-delimited' text file. This means that any data file, created with any text editor, can be used. Placement of a tab between data points is

required. For example, for any given line of data (which represents the information for a single copy of the template) the text file might look like this:

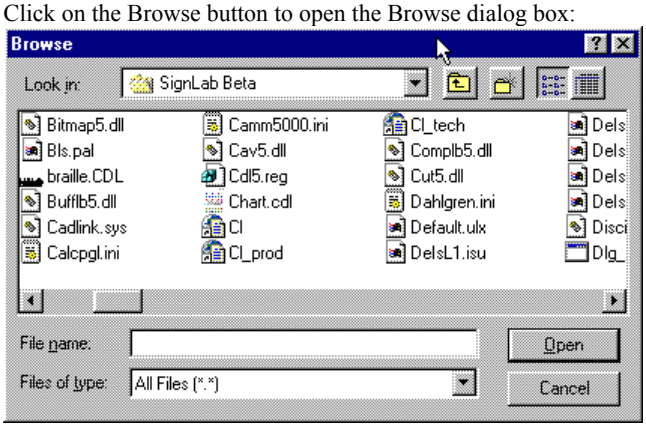
Text Field 1 (TAB) Text Field 2 (TAB) Text Field 3

Badges substitutes the values in the file into the template.

> ***Note:*** If a data file is specified, and fewer copies are required than lines of data in the file, Badges will use only the data that will fit into the number of copies required. Conversely, if a data file for use with the Smart Cut function, and fewer replaceable items are required than entries in the data file, the entries in the data file will be truncated to fit the number of replaceable items.

Browse

Click on the Browse button to open the Browse dialog box:



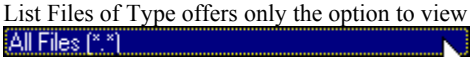
From within the standard Windows dialog box, navigate to the data file containing the information for the template copies.

File Name

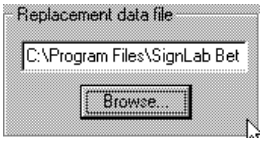
Type in the name of the file required, include the exact path in the Look In entry box, or select the path from the following options. If a file is selected in the Files list box (noted below) the name will appear in the File Name box. If the currently selected drive and directory path are correct the files contained in the file list should include the required file.

Files of Type

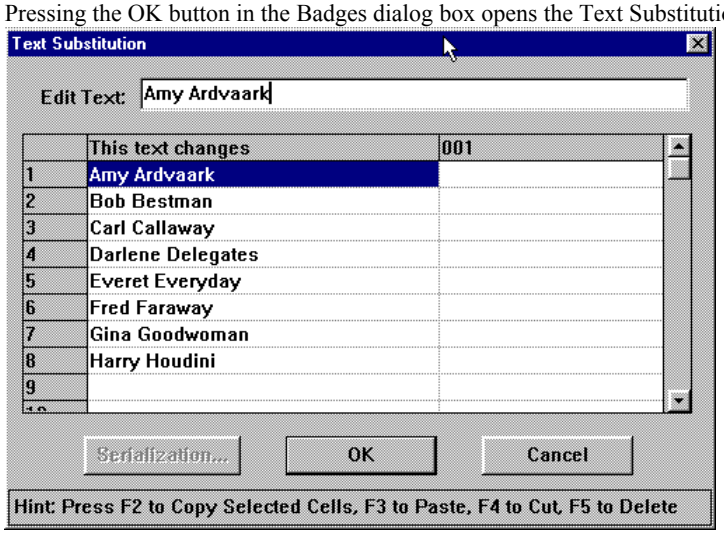
List Files of Type offers only the option to view All Files.



Once a data file has been selected it will appear in the Data Replacement box.



Pressing the OK button in the Badges dialog box opens the Text Substitution dialog box:

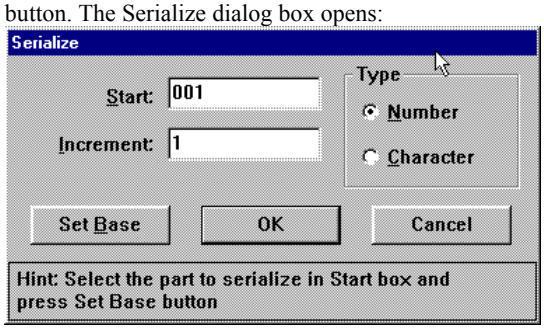


If a text file is being used to fill the substitution grid, the data will appear. If no text file is specified, enter the data as required by clicking on the appropriate cell and entering the required data.

There is a column for each of the data names selected in the Replaceable Items list box. Each of these columns can contain independent entries, or entries may be serialized (i.e., they may contain alpha-numeric data).

Serialization

To serialize the data, select the column to which serial data is to be applied, and press the Serialization button. The Serialize dialog box opens:

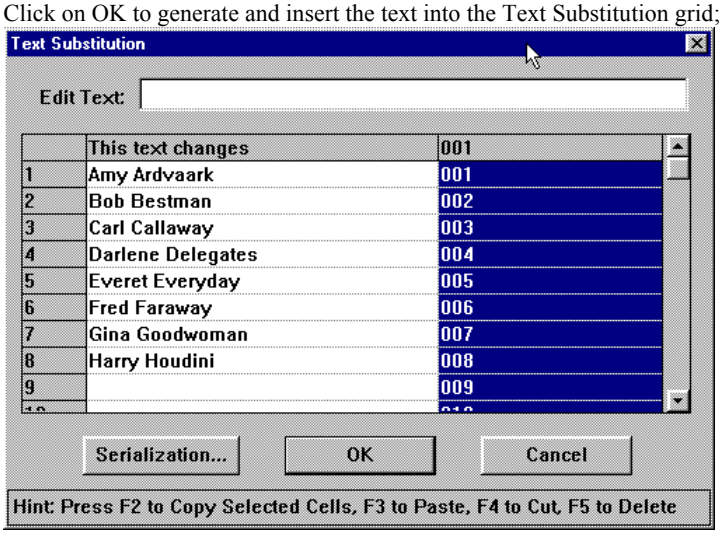


Within the Serialize dialog box, set the format for the selected field, and specify the serialization parameters, as follows:

- Enter the text and alpha-numeric information for the field in the Start box;
- Sweep-select the portion which is to be serialized. By allowing selection of the portion which is to be serialized, Badges allows for a mix of serialized text with non-serialized text. For example, choose to duplicate the phrase, “Room 101,” in each cell of the grid, but only serialize the numbers (i.e., "101");
- Click on the appropriate serial Type, either number or character;

Note: While a numeric base will be incremented through the range of possible numbers through to infinity, alphabetic characters will be increased cyclically through the entire ASCII character set (i.e., when the increments reach the end of the ASCII character set, it will restart at the beginning of the set).

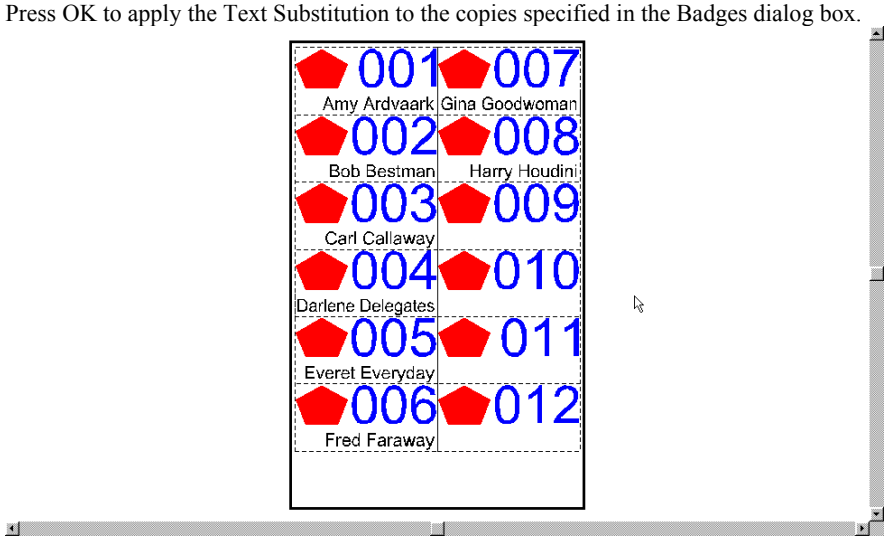
- Click on the Set Base button to establish the selected characters as the base from which serialization will be started;
- Enter the incremental value in the Increment box;
- Click on OK to generate and insert the text into the Text Substitution grid;



- Complete the Text Substitution grid as required.

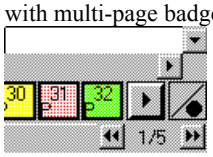
OK

Press OK to apply the Text Substitution to the copies specified in the Badges dialog box.



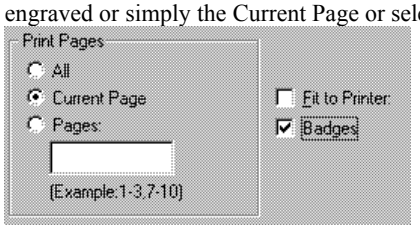
Multi-page files

At the bottom corner of the EZ-Engrave view screen there is now a section that describes the current page selected, as well as access to the other pages in the file through the use of the arrow buttons. Use the back arrows to view a previous page, and the forward arrows to view the next page. The pages are listed as #1 / #2, where #1 is the current page selected and #2 is the total number of pages. Only files with multi-page badges can contain multiple pages.



Printing Multi-page files

These multiple page files can also be printed/plotted/routed as multiple pages. When there are multiple pages in a file, the Badges option in the Print dialog box is made available. Activating the Badges check box converts the Print Mode are to a Print Pages area where the pages can All be printed/ routed/ engraved or simply the Current Page or selected pages can be printed/ routed/ engraved.



Badges, Serialization, and Text Formatting

Any formatting information applied to text in the template object (the original) will be applied to the text replacement in the copies. This includes format keys such as Justification, Line Compression, Compression-Expansion, object colors, Line Style, Fit Text To Arc, Letter Slant, Line Spacing, etc…

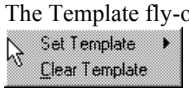
This gives complete control over the final output of the Badges function, even though no text will be entered for the copies. Take advantage of the various formatting capabilities incorporated into EZ-Engrave to control the output of Badges.

For example, Justification can ensure that text is always centered on an object or layout regardless of the length of the text. Specifying a maximum line length using Compression prevents unexpectedly long text strings from obscuring other text, or graphic elements, by limiting the text string length. Using these features prevents unwanted surprises, and increases productivity.

> ***Note:*** If the Badges (copies) are ungrouped any formatting changes made to the template (original) object will not be applied to the Badges.

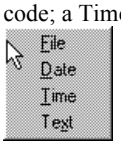
TEMPLATES

The Template fly-out menu is available when Templates is selected from the menu.



Set Template

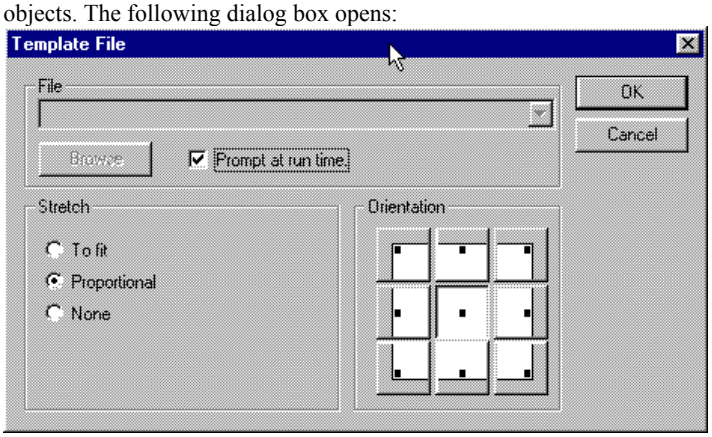
A Template is a special kind of file that provides the basic tools for shaping a final file. Templates can contain the following elements available from the Set Template fly-out menu: a File element; a Date code; a Time code; and Text elements.



Create a Template as a normal CDL file would be created, and select specific items to represent the separate Template elements.

File

Type in a word and set it to the appropriate size for any artwork proofs. Select the word and choose the File option from the Set Template fly-out menu. Multiple objects in a Template can be set as File objects. The following dialog box opens:



File / Prompt at Run Time

The Template can be set to select the same file every time in the case of a company logo, or it can be set to prompt for a file at run time. Use the Browse feature to select a permanent file, or activate the check box for prompt at run time to provide the option of inserting a file when the Template is used.

Stretch

The file can be set To Fit the designated File object area, to fit as a Proportional object within the File object area, or to import at the actual file size (None).

Orientation

Select the orientation and location within the File object area for the file in use.

Date

Type in a word and set it to the appropriate size for any artwork proofs. Select the word and choose the Date option from the Set Template fly-out menu. EZ-Engrave applies a date code to the selected word and will insert the current date set on the system clock, whenever the Template is used. Multiple objects in a Template can be set as Date objects.

Time

Type in a word and set it to the appropriate size for any artwork proofs. Select the word and choose the Time option from the Set Template fly-out menu. EZ-Engrave applies a time code to the selected word and will insert the current time set on the system clock, whenever the Template is used. Multiple objects in a Template can be set as Time objects.

Text

Type in a word or sentence and set it to the appropriate size for any artwork proofs. Select the word and choose the Text option from the Set Template fly-out menu. Whenever the Template is used, there occurs a prompt for the Text to be entered in this location in the Template. Multiple objects in a Template can be set as Text objects.

Other Objects

Objects that are not defined using the Set Template options as any of the available settings, are inserted into any file created using the Template as is. Therefore if the name of the company is to appear on all files in the same location, simply enter the name in the Template as it should appear, and do not define it as any option within the Set Template menu.

Saving a Template

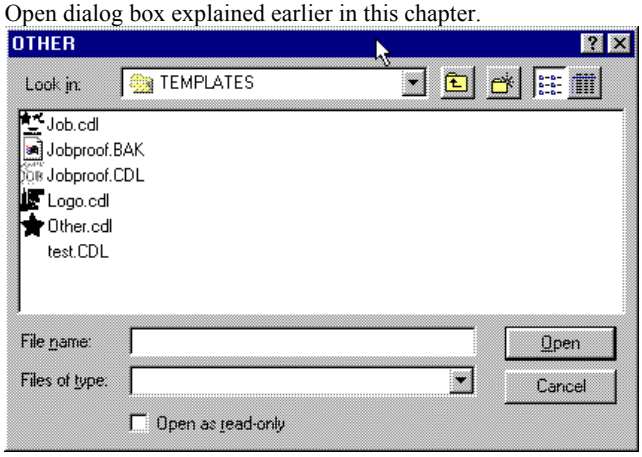
To save a file as a Template, simply save the file with the Template settings as above. When the file is opened EZ-Engrave will recognize the Template tags in the file and behave accordingly.

Opening a Template

When a file is opened that includes Template tags, a series of Open dialog boxes appear after the specified Template is selected. A dialog box will open for each Template object that must be inserted.

File Objects

The File Objects will open with the dialog box titled the same as the text that was denoted as a File object. Select a File to insert in the appropriate location. These dialog boxes function the same as the Open dialog box explained earlier in this chapter.

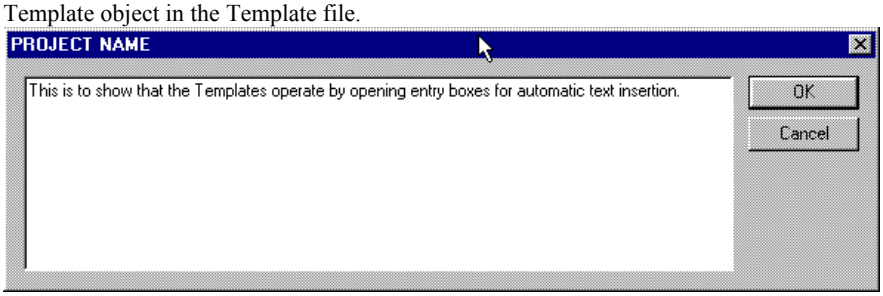


Date and Time Codes

The Date and Time codes are inserted automatically using the system clock. The Date and Time is inserted using the same font, size, and text specifications as used for the Template object in the Template file.

Text Objects

The Text Objects will cause an entry dialog box to open for every item denoted as a Text object. Enter the appropriate text, this text will be automatically inserted into the original Text object location in the Template. The Text is inserted using the same font, size, and text specifications as used for the Template object in the Template file.

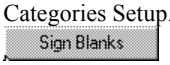


Clear Template

Clear Template is available only when Edit Template from the File menu has first been selected. Also, an item that has been designated a Template Object must be selected to use this feature. Selecting Clear Template clears the selected object's template setting, and does not clear the entire Template. Each item must be selected to be cleared, items can be Shift or Control selected and the Clear Template option will work, however if any item that is not a Template Object is selected, Clear Template is not available.

CLIP ART GO TO

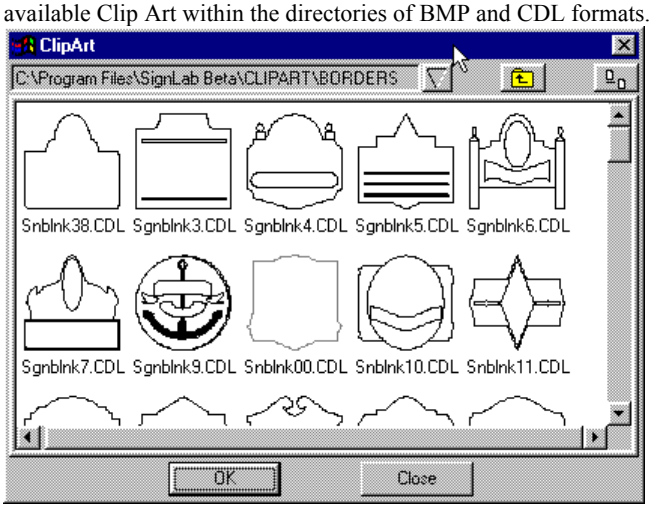
The Clip Art Go To provides access to all available Clip art directories set up using the Clip Art Categories Setup. EZ-Engrave is installed with a default directory for Sign Blanks already provided.



Selecting from the fly-out menu opens the Clip Art Viewer with the selected directory open.

CLIP ART VIEWER

The Clip Art Viewer provides quick and easy access to any Clip Art directories and displays all available Clip Art within the directories of BMP and CDL formats.



Any directory can be viewed using the Clip Art viewer, however only BMP and CDL files will appear in the view screen.

Path

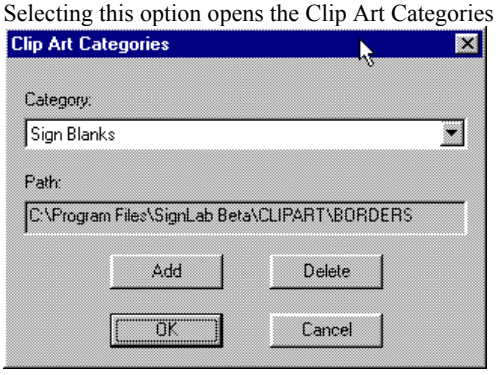
The directory path is listed in this drop-down menu listing. Selecting the down arrow opens the drop-down list to provides access to all available directories registered as Clip Art Categories. Use the Up One Level button to back up in the directory structure. The View button toggles the view of the Clip Art icons between small and large formats.

Clip Art Display Window

All available BMP and CDL Clip Art is shown in the display window. To use a piece of Clip Art either select and press OK, double-click, or click and drag the Clip Art onto the EZ-Engrave editing window. The file will be merged into the currently open file.

CLIP ART CATEGORIES SETUP

The Clip Art Categories Setup provides the ability to setup a file management system for Clip Art. Selecting this option opens the Clip Art Categories dialog box.



Category

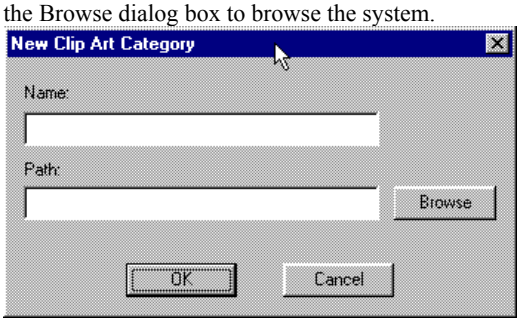
The Category lists all available categories in a drop-down list.

Path

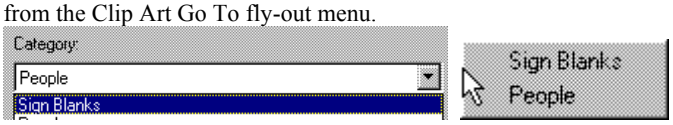
The Path box displays the directory path to access the currently selected category.

Add

To Add a new Category press the Add button and the New Clip Art Category dialog box opens. Insert an appropriate name and key in the path to the required directory or use the Browse button to access the Browse dialog box to browse the system.



Any new Categories added will now be listed in the Category list in the Setup dialog box as well as from the Clip Art Go To fly-out menu.



Note: If a Category is setup to use the same name as a file within the category the folder will use the same thumbnail as the Clip Art.

Delete

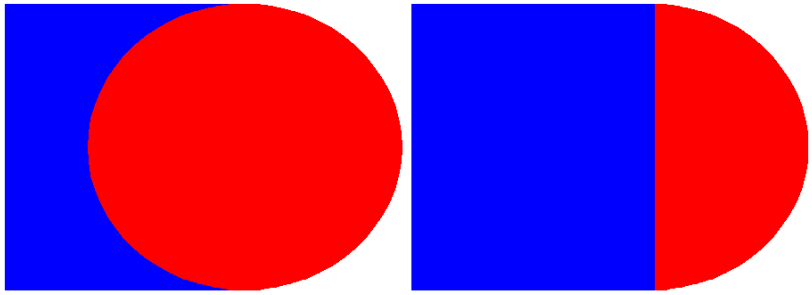
To Delete a Category select it from the Category list and press the delete button. The selected Category will no longer be available.

ARRANGE MENU

ARRANGE

The Arrange menu contains options which place the objects into a specific layering order relative to each other. Changes in the layering of objects has an effect on what is seen on screen as follows:

- Objects which are 'on top' or 'above' other objects will appear to cover those objects, such that the lower objects will appear to be physically 'underneath' the objects above them. This graphic illustrates the principle using the simple case of two objects which overlap:



Square set to Back, Circle set to Front.

Square set to Front, Circle set to Back.

TO FRONT

To Front is used to move the selected object(s) from the current position in a stack of objects to the top layer of the stack.

Shortcut Key: [Control + F]

TO BACK

To Back is used to move the selected object(s) from the current position in a stack of objects to the back layer of the stack.

Shortcut Key: [Control + B]

FORWARD

Forward is used to move the selected object(s) from the current position in a stack of objects to the next higher layer in the stack. This will have the effect of moving the object(s) from underneath the object layered directly above it to a position in front of that object.

Shortcut Key: [Control + U]

BACKWARD

Backward is used to move the selected object(s) from the current position in a stack of objects to the next lower layer in the stack.

Shortcut Key: [Control + L]

REVERSE

Reverse is used to invert the order of selected objects within a layered stack of objects(i.e., objects are layered 1,2,3,4 — Reverse causes the objects to be layered 4,3,2,1).

Shortcut Key: [Control + R]

MAKE PATH

Make Path is used to combine a number of independent, selected objects into a single path. The multiple objects become a single object when made into a Path. A Path made up of several objects is similar to a Group of objects. However, a Path differs from a Group in two ways:

- Path objects are always the same color, and are forced to the Target color when the Make Path command is used; and
- Path objects have a generation relationship.

Having a generation relationship means that any object which is placed inside or overlapping any other object with which it shares a Path, becomes a hole in that object, rather than an independent object that overlaps another.

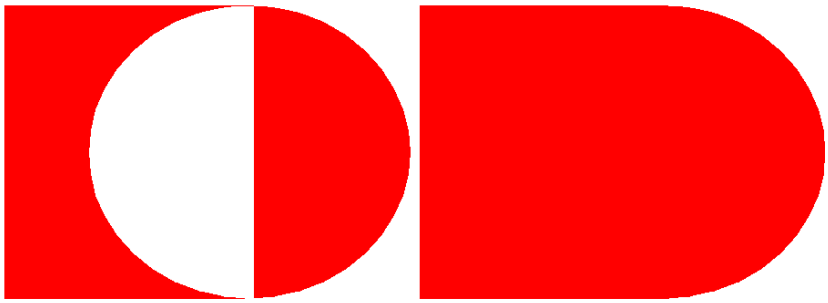
Square and circle Group Square and circle Path

Note: The Group objects are solid with different colors, while the Path object, rather than being a solid circle on top of a solid square, becomes a single object of one color with a hole where the original objects overlapped.

Keyboard Shortcut: [Control + Z]

BREAK PATH

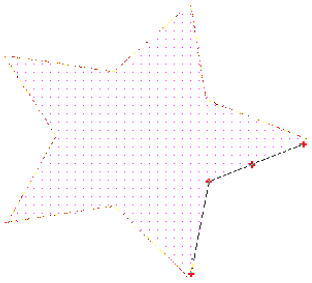
Break Path will change a selected path into individual and independent graphic objects. The objects will be forced to the Target Color.



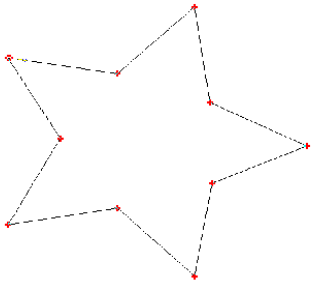
Keyboard Shortcut: [Alt+Z]

CONNECT PATH

When graphics are imported into EZ-Engrave from a third-party software in DXF format, it is common for the graphics not to be closed. They appear as a series of lines and curves that are not joined. The Connect Path option joins the lines and curves together to form single objects (as they were exported). Select the object(s), and use the Connect path option.



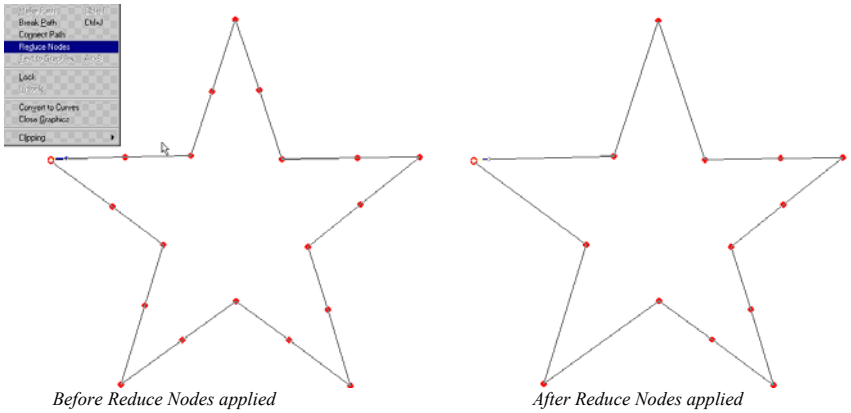
Imported object — Multiple Paths form object



Connect Path — Single Path forms object

REDUCE NODES

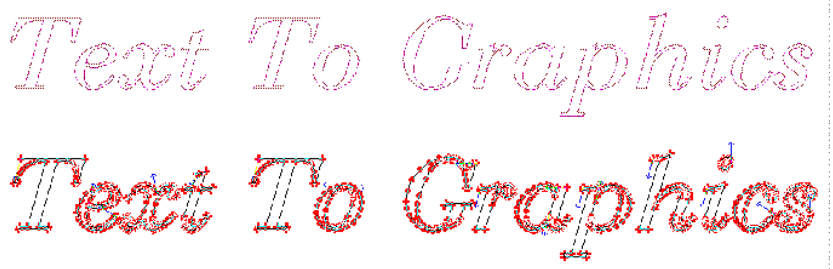
When graphics are traced using the scanning tools in EZ-Engrave or imported in vector format the polyarcs can sometimes contain more nodes than necessary. Selecting the Reduce Nodes option when using the Polyarc tool is activated opens the Convert to Curves dialog box, where the allowable Error for the function can be set *(see pp.5 for more information)*. The default setting for allowable error generally provides good results.



Before Reduce Nodes applied *After Reduce Nodes applied*

TEXT TO GRAPHICS

The Text To Graphics option changes a selected text string into a graphic element. Text must be converted to graphics before welding, editing nodes, or editing line segments of the text.



Top line is text, bottom line is text converted to graphics. The nodes can be edited in graphics.

LOCK

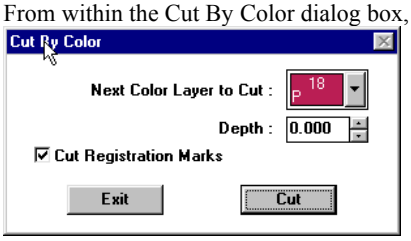
EZ-Engrave supports the use of Locked objects. Specifically, an object set as Locked cannot be re-sized, but can be routed with all colors in a file regardless of its color on screen. Only graphics can be set as Locked objects.

- To set a Locked object, select the object to be used, and click on the Lock command in the Arrange menu.

Routing A Locked Object

To rout a Locked object as part of a file, use Cut By Color, an option within the Plot dialog box available from the Cut menu.

From within the Cut By Color dialog box, click on the Cut Registration Marks check box.



> ***Note:*** For more detailed information on the Cut by Color section in chapter 10 — Advanced Output.

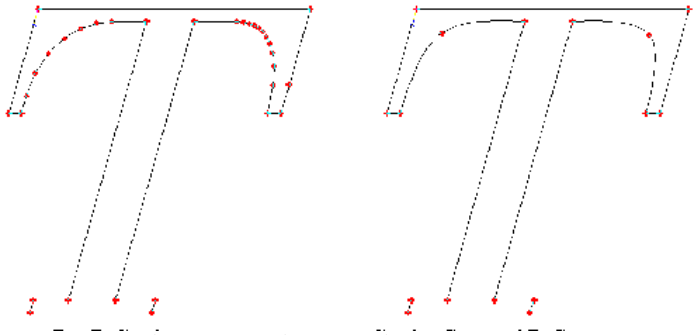
UNLOCK

The Unlock command removes the Lock from the current object, and returns all Locked objects to regular object status.

CONVERT TO CURVES

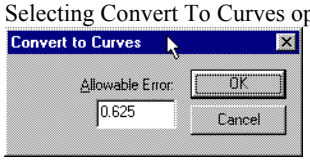
The Convert to Curves command changes a selected object composed of vectors into an object composed of bezier curves. A drawing composed entirely of vectors will appear jagged when scaled up, but bezier curves (which can be curved or straight) tend to scale much more smoothly.

Because of the nature of bezier curves, a single bezier curve can often replace multiple vectors. As a result, Convert To Curves can substantially reduce the number of nodes in an object.



Text To Graphic *Graphic Converted To Curves*

Selecting Convert To Curves opens the Convert To Curves dialog box:



Allowable Error

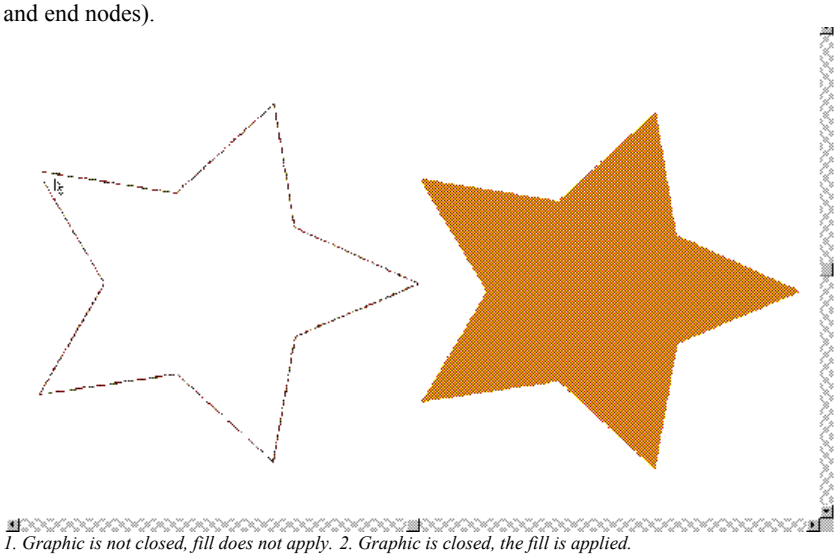
In order to Convert To Curves, the Allowable Error must be specified. Allowable Error represents the amount of acceptable deviation from the edges of the original object, and is measured in the current unit of measurement as specified in the General Preferences dialog box (i.e., inches or millimeters).

Setting the Allowable Error at one percent (1%) of the smallest dimension of the object generally yields good results. For example, if the object measures ten by three inches, a setting of one percent of the smaller dimension, or 0.03 inches, usually yields very good results.

Converting vectors to curves sometimes introduces minor distortions into a graphic object, as a result, caution should be exercised when setting the Allowable Error. Once the Allowable Error is set, select OK to apply the changes, this will close the Convert To Curves dialog box.

CLOSE GRAPHICS

This command will automatically close an open object. An open object has a start and an end point that are not joined, even though when looking at the object on the screen it may appear to be a closed object. This situation is common for graphics and text imported from third party software. This Close Graphics command closes these objects, by drawing a new line between the two open nodes (the start and end nodes).



1. Graphic is not closed, fill does not apply. 2. Graphic is closed, the fill is applied.

***Note**:* To close text characters, the text must first be converted into graphics before the Close Graphics command can be used.

CUT MENU

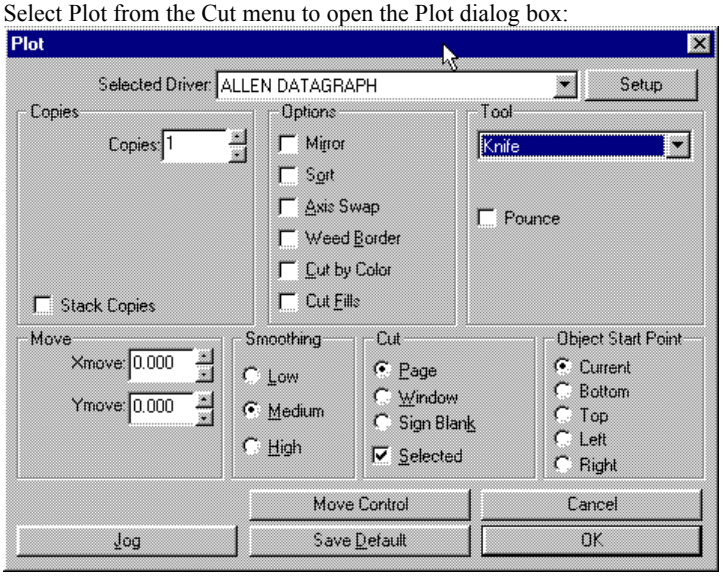
PLOT

The Plot command is used to rout or plot a selected file. This command controls multi-copy routting, paneling, and other routting variables.

An important and unique feature of EZ-Engrave's Rout routine is that it will rout only those objects with currently active colors. This allows for the routting of selective elements within a graphic, while leaving others unrouted.

> ***Note:*** To Rout or Plot, the correct driver must be installed for the make and model of a plotter. See the File menu section of this chapter headed Install Drivers, to determine if the plotter driver is installed in EZ-Engrave. If a plotter driver is not installed, it must be installed prior to routting or plotting a file.

Select Plot from the Cut menu to open the Plot dialog box:



> ***Keyboard Shortcut***: [ALT + P]

Selected Driver

The Selected Driver list box is used to specify the router to send the current rout or plot to. This box will contain a complete list of all routers installed in EZ-Engrave.

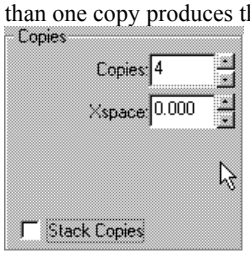
> ***Note:*** The Selected Driver list box only lists those drivers which are already installed in EZ-Engrave. If a driver is not in this list, then that driver is not properly installed, and must be installed using the Install Drivers option in the File menu.

Copies

This section is used to specify the number of copies to rout or plot, and, in the case of multiple copies, the space to be left between the copies.

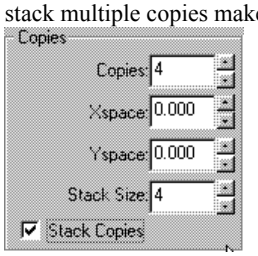
Copies Counter Box

This edit box is used to specify the number of copies EZ-Engrave is to rout or plot. Specifying more than one copy produces the Xspace entry box.



Stack Copies Check Box

If routing more than one copy of a given object or objects, the copies can be stacked vertically by clicking on the Stack Copies check box. If no stacking is preferred, do not check this box. Electing to stack multiple copies makes the Yspace entry box available.



Xspace and Yspace

Specify the amount of space to be left between copies in a multiple copy rout. The Xspace parameter (which becomes available when more than one copy is specified) governs the amount of space left between copies placed side by side along the length of vinyl or paper. The Yspace entry box (produced by checking the Stack Copies check box) is used to define the space to be left between copies stacked above one another on the vinyl. Both of these parameters are measured in the current units of measurement as specified in the Preferences dialog box.

Stack Size

The number of copies to be rout in a single vertical stack is shown in this edit box. By default, it is the maximum number of complete objects which will fit, including the Yspace distance required between each. This number can be reduced, but cannot exceed the number that will actually fit.

Options

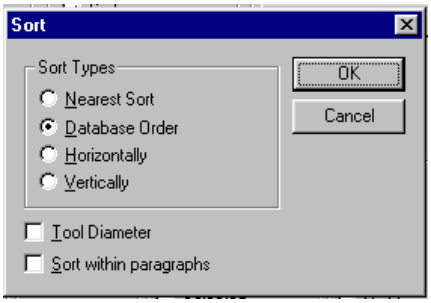
This section is used to take advantage of some of the advanced features available with EZ-Engrave's routing routines.

Mirror

Selecting Mirror causes the plotter to plot a mirror image of the selected graphic maintaining all the settings established in other segments of the Plot dialog box. This option is particularly useful for routing a graphic that is to be reverse-applied, as is the case when creating a window sign to be applied from the inside of the glass.

Sort

The Sort option is used to optimize routing for a number of different situations, depending on the current needs and the modules installed into EZ-Engrave. Selecting Sort opens the Sort dialog box:



Sort Types

- Nearest Sort, causes EZ-Engrave to sort the objects that are closest to each other and rout them first (i.e., two objects that are one inch apart will be routed in the same pass, whereas objects that are five inches apart will be routed separately).
- Using Database Order, objects at the back of a graphic are routed first, while objects at the front are routed last. This sort type typically, causes EZ-Engrave to rout objects in the order in which were originally generated. Change this order by moving objects forward or backward using the options in the Arrange menu. This is EZ-Engrave's default sort option.
- Horizontally, causes EZ-Engrave to rout objects as they appear in the graphic from left to right. Under this sort type, EZ-Engrave will rout those objects whose extreme left edges are farthest right first, and rout those whose left edges are farthest left last. This sort order is most useful when routing a long file on a friction-fed plotter, as it reduces the required amount of travel back and forth along the length of the vinyl.

- Vertically, causes EZ-Engrave to rout first those objects whose extreme upper edges are lowest along the Y-axis. The higher on the Y-axis the object appears, the further in the order it will be rout.

Tool Diameter

Tool Diameter is available only if the routing option is installed in EZ-Engrave. It causes EZ-Engrave to sort all rout paths by the specified tool diameter for each path, from smallest to largest. Sort by Tool Diameter in addition to the any one of the other sort options.

Regardless of which of the sort options is chosen, all objects will, generally, be rout from the inside to the outside contours (i.e., the inner circle of an "O" will be routed before the outer circle).

Sort Within Paragraphs

The Sort Within Paragraphs option causes EZ-Engrave to sort each letter as an object instead of each paragraph. For example if two paragraphs of text one above the other are sorted horizontally, the sort plots the first letter of each paragraph before moving across to the next. This has the benefit of saving on back and forth motion of the hardware.

Note: Sort within paragraphs is available in Professional Text Compose only.

Axis Swap

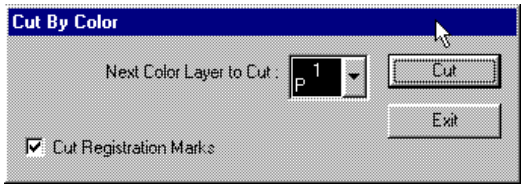
Selecting the Axis Swap option causes the objects being plotted to be rotated ninety degrees (90°) counter-clockwise from their orientation on screen. This is a convenient way save vinyl, especially when routing long strings of single line text.

Weed Border

Selecting this option places a Weed Border around the objects selected to be routed. The margin or offset between the graphic and the Weed Border is set in the General Preferences dialog box from the Options… EZ-Engrave Setup… menus.

Cut By Color

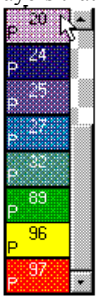
Select the Cut By Color option to rout a multi-colored graphic one color at a time. When Cut By Color is selected, the Cut By Color dialog box is displayed after the OK option is chosen to send the job to the router.



Next Color Layer to Rout

This list box will display the color layer that is the next color layer to be routed. To select another color layer:

- click on the scroll arrow in the box and a drop-down menu appears displaying all the color layers that appear in the drawing;



- click on the color layer to rout and it will appear in the display box as the next color to rout.

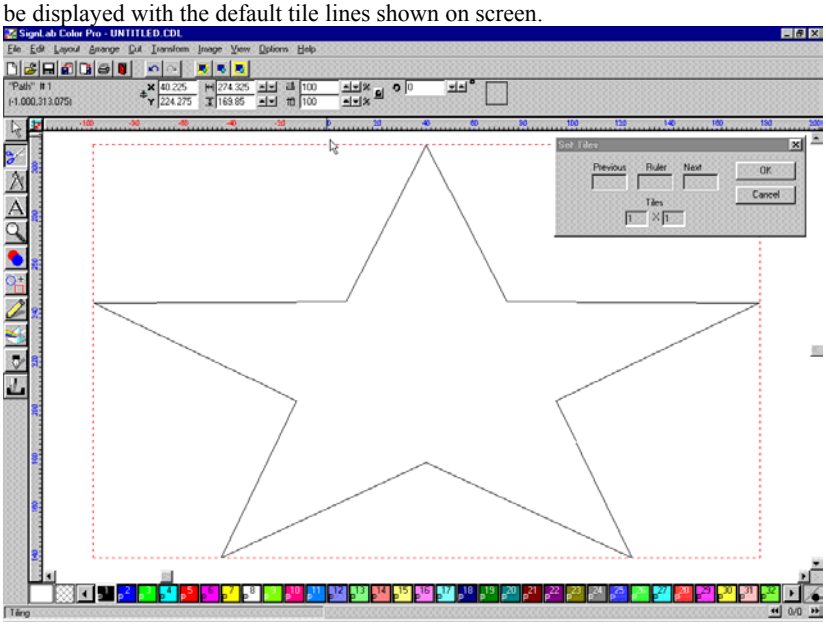
The colors are displayed in the drop-down menu in the order they occur in the Color Palette. Select any color at any time, and any color can be routed multiple times.

Cut Registration Marks

Selecting the Cut Registration Marks causes Registration marks and all objects set as Locked to be routed with every color layer.

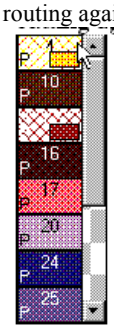
Cut

Click on Cut to proceed to the Set Tile dialog box where all selected objects from that color layer will be displayed with the default tile lines shown on screen.



Once a color layer has been sent to the router, the corresponding color plate in the list box will be cross-hatched indicating that the color has already been routed once. The color can be re-selected for

routing again.



***Note**:* If Cut By Color is activated, a warning appears, if any thick lines are present in the drawing, asking if the thick lines should be routed. These thick lines will be shown on the screen and their color will appear in the Cut By Color dialog box as a color option to rout.

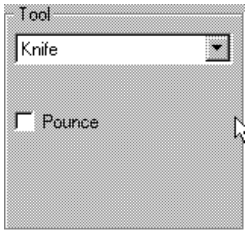
Cut Fills

Selecting Cut Fills opens the Tool Path Options dialog box:

This option is available only if one of the modules which include a Tool Path, such as routing, engraving, or banner-making has been purchased. For more information on this option, see Chapter 10 — Advanced Output.

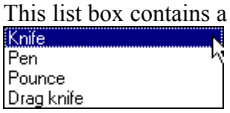
Tool

The Tool section is used to define the tool parameters for the present rout or plot.



The Tool List Box

This list box contains a complete list of all tools available for the specified driver.



These tools include:

- > Air Brush
- > Drag Knife
- > Left Spindle
- > Multi-pass depth
- > Pounce
- > Right Spindle
- > Spindle off
- > Both Spindles
- > Knife
- > Manual depth
- > No depth
- > Pounce Wheel
- > Router
- > Trailing Blade
- > Drill
  - > Engraver
- > Multi-pass
- > Pen
- > Racer Blade
- > Single-pass depth

All of these options may not be available, they are dependent on the plotter driver installed. Select the appropriate option for the tool being used to rout or plot.

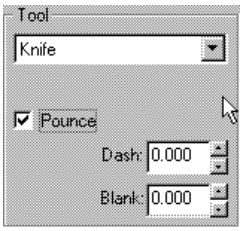
Trailing or Drag Knife

Select Trailing or Drag Knife if there is a Ideal Stencil Racer Blade tool in the Gerber tool holder or if the plotter is equipped with a Trailing Blade or Drag Knife.

This option invokes a routine in EZ-Engrave which allows for the movement of the knife edge, and is offset from the center of the tool. Without this routine, the objects routed would not properly close, and corners would not be routed sharp. However, be aware that most routers which support a Drag Knife also have their own routines that compensate. As a result, never set both the router and EZ-Engrave in Drag Knife mode, as this will result in poor rout quality.

Pounce

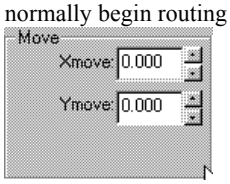
Selecting this option causes the plotter to make pounce patterns by lifting and lowering the tool holder while routing or plotting. This results in the objects in the file being perforated or drawn with a broken line.



When the Pounce option is selected, the Dash and Blank variables become active. The value entered in the Dash entry box determines the length of the perforation or drawn line. The value in the Blank edit box determines the spacing between each perforation or line.

Move

This determines where the router will begin to plot on the X and Y axis. By default, the plotter will normally begin routing a graphic file at the lower left hand corner of the vinyl.



Xmove

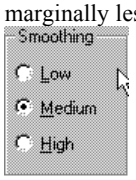
Movement along the length of the vinyl (the X-axis) is accomplished by entering the appropriate distance in the Xmove entry box.

Ymove

To move the plot across the width of the vinyl (the Y-axis) specify a move using the Ymove entry box. Both the Xmove and Ymove entry boxes use the current unit of measurement (as specified in the General Preferences dialog box) as the unit of measurement. This feature is useful, for example, if the vinyl roll has a section already used and the rout must be performed in an upper section of the vinyl. This command will adjust the origin for plotting.

Smoothing

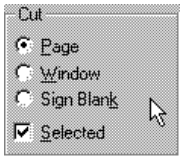
Smoothing attempts to smooth the transition from each vector or curve in a drawing's outline to the adjacent line segments. Lower Smoothing tends to result in smoother lines, but may also result in a marginally less-accurate rout.



- Selecting Low results in a smooth, faster rout, but some drawing resolution may be lost;
- Selecting Medium applies a moderate amount of smoothing and is the recommended setting for most routing operations, though routing may be marginally slower; and
- Selecting High applies a minimal amount of smoothing on the original drawing file. The routing will be slow but accurate.

Cut

The Cut section determines which parts of the graphic are going to plot.



Page

Selecting Page will plot all objects on all active layers of the graphic. The Page option will shift the objects to be routed from the lower left of the plotter page.

Window

Selecting the Window option will rout all those objects in active layers that are currently visible on the view screen. If an object is only partially visible on screen, only the visible portion will be routed. The Window option will shift the objects to be routed from the lower left of the plotter page.

Sign Blank

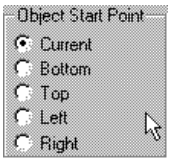
Selecting the Sign Blank option will cause EZ-Engrave to plot only those objects which appear on the sign blank. As with the Window option, an object which is partially on the sign blank will be partially routed.

Selected

The Selected option results in only selected being routed. Selected can be used in combination with any of the other three boundaries for routing the objects that fall within the boundaries of the Rout criteria (i.e., Page, Window, or Sign Blank) and are selected will be Routed.

Object Start Point

With the Cut section of the dialog box, move the start points of objects about to be routed.



Current ...the start point for original creation of the objects;

Bottom ..the lowest point on the object;

Top. .....the highest point on the object;

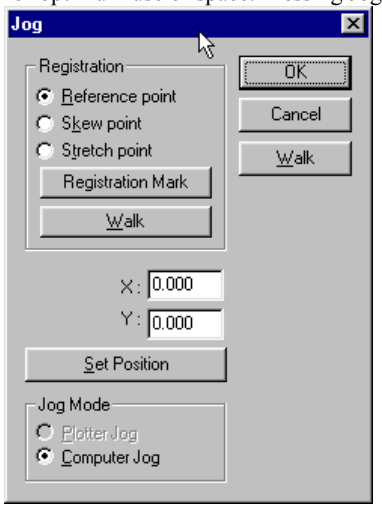
Left. .....the left-most point on the object; or

Right .....the right-most point on the object.

Jog

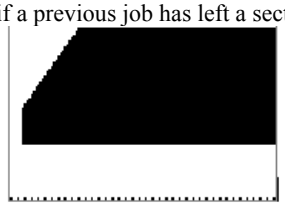
EZ-Engrave supports two related features, called Plotter Jog and Plotter Interrogation. These features are designed to help reduce the amount of material waste by routing objects in specific areas of a sheet of vinyl. When using this feature, objects can be placed very precisely into areas of vinyl that were left unused by a previous job. Also, elements of a current job can be placed into different areas of the vinyl

for optimum use of space. Pressing Jog button opens the Jog dialog box:

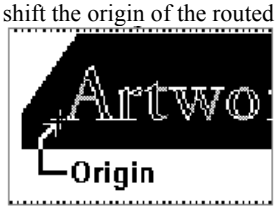


When new artwork is routed on plastic scraps, left from a previous job, move the origin to fit the artwork into a specific area. For example:

- if a previous job has left a section of Plastic in an odd shape;



- shift the origin of the routed so that it fits into the remaining Plastic;



While this task can be accomplished by setting an X- and Y-move from within the Cut dialog box, jogging the plotter head offers a more precise setting. This is because the head of the router can physically be moved to the desired position before committing to the rout. Also, use the Jog option to change the angle of the baseline for a given rout.

Registration

The first box within the Jog dialog box is the Registration box and offers the option to set the Reference Point, the Skew Point, and the Stretch Point, or to Walk the plotter over the Registration marks or Reference Points.

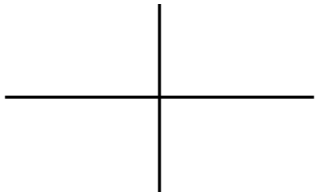
If Registration Marks exist on the artwork, the Reference Points (described below) will be set to the Registration Marks.

Reference Point

The first step in jogging the plotter head is to set the Reference Point. This includes both defining a target point for the group of objects to be routed, and defining where on the vinyl that point is to be placed.

To set the Reference Point, click Reference Point in the Registration area of the Jog dialog box. This setting enables of the Reference Point's target to be defined, as well as its actual position on the vinyl.

The next step in setting the Reference Point is to define the Reference Point's target on the graphic on screen. The default Reference Point is the origin of the artwork (i.e., lower left point). This point can be moved graphically on screen to suit specific needs. Move this Reference Point to anywhere on the artwork by clicking with the left mouse button at the desired position. The Reference Point target cross-hair looks like this:



Once the Reference Point is set on the artwork, set the actual position on the vinyl for the Reference Point for routing. This involves moving the head of the plotter to the point where the target should be placed. The plotter headmay be moved in five ways:

- move the mouse, while holding the right mouse button;
- position the mouse and press the right mouse button;
- press the cursor keys (holding the Shift key moves the plotter head in larger increments);
- enter the coordinates manually; and/or
- move the plotter head with the plotter controls.

Skew Point

If there is only a Reference Point set, EZ-Engrave will rout the graphic with a horizontal baseline. However, to change the angle of the baseline to make better use of the available vinyl, or to rout a pre-printed piece of material accurately, set a Skew Point.

- The procedure for setting the Skew Point is identical to setting the Reference Point. Click on Skew Point in the Registration section of the Jog dialog box to begin.

Stretch Point

If there is only a Reference Point and/or Skew Point set, EZ-Engrave will rout the graphic with the exact proportions that it was originally designed at. However, to change the horizontal and/or vertical proportions of the graphic to rout a pre-printed piece of material accurately, as some printers/ routers/ engravers might resize the image while printing/ routing/ engraving, set a Stretch Point.

- The procedure for setting the Stretch Point is identical to setting the Reference and Skew Points. Click on Stretch Point in the Registration section of the Jog dialog box to begin.

Registration Mark

Pressing the Registration Mark button causes the plotter to move around to the next registration mark location on the vinyl, and is useful when Contour Routing print jobs. The plotter head will remain in

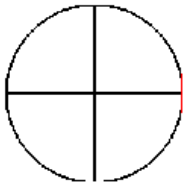
the up position during this movement. This feature is particularly useful to ensure that registration is accurate for contour routing pre-printed graphics.

Walk

Pressing the Walk button within the Registration box causes the plotter to move through the Reference, Skew, and Stretch Points on the vinyl. The plotter head will remain in the up position during this movement. This feature is particularly useful to ensure that registration is accurate for contour routing pre-printed graphics.

Move The Routing Head With The Mouse

To move the routing head with the mouse, simply drag the target to the appropriate position using the right mouse button. Note that as the mouse moves, the routing head of the plotter mimics the movements. The Target representing the plotter head looks like this:



Lead the router to the position for the first reference point, release the right mouse button when the plotter head is in position. The routing head can also be moved by [Shift] clicking the right mouse button at the first reference point position.

To check the exact position of the pen or knife, the routing head of the plotter can be dropped to the surface of the vinyl by pressing the [Page Down] key on the keyboard. To return the head to the up position, press the [Page Up] key.

Move The Routing Head With The Keyboard

Moving the routing head with the mouse is generally a coarse adjustment. To supplement this type of movement with a finer control, choose to direct the routing head to the required position from the keyboard using the Left, Right, Up, and Down arrow keys. Click in the main EZ-Engrave view screen before using the cursor keys in order to activate this function. To increase the speed at which the routing head is traveling, press and hold the [Shift] key while moving the head.

To check the exact position of the pen or knife, the routing head of the plotter can be dropped to the surface of the vinyl by pressing the [Page Down] key on the keyboard. To return the head to the up position, press the [Page Up] key.

> ***Note**:* The arrow keys on the keyboard can only be used to move the routing head to the position of the Target. The Target itself can only be moved using the mouse.

Move The Routing Head To An Absolute Position

Move the routing head with a very high degree of precision to an absolute position on the vinyl, by typing in the required X-axis and Y-axis coordinates in the X and Y entry boxes to set the target position.

Once the first target point is specified, press the Set Position button to lock in the coordinates. This button, available only in Remote Jog mode, will immediately move the plotter head to the position set in the X and Y boxes**.**

Jog Mode

Select between Plotter Jog and Computer Jog.

Plotter Jog

Some plotters have the ability to relay information about the position of their plotting head to the computer through the same serial cable by which the computer controls the router. In order for this information to be useful, however, the software running on the computer must be capable of accepting and recognizing it. The ability to poll information from the plotter is called Plotter Interrogation.

Because EZ-Engrave supports Plotter Interrogation, certain plotters can actually be jogged directly from their own front panel controls, relaying their movements to EZ-Engrave. The plotter's controls can therefore be used to jog the plotter rather than the keyboard or mouse.

To take advantage of Plotter Jog (where supported by the plotter):

- click on Plotter Jog in the Jog Mode area of the Jog dialog box;
- adjust the plotter head position with the plotter controls; and
- click on Get Position.

The Get Position button, available only in the Plotter Jog mode, will interrogate the plotter and then display the plotter head position in the X and Y Boxes. This option is available only if the router supports plotter interrogation.

Computer Jog

Computer Jog allows for the use of the mouse, keyboard, or Jog dialog box to control the positioning of the plotter head.

Walk

Pressing the Walk button causes the plotter to move around the perimeter of the vinyl required by the current rout job. The plotter head will remain in the up position during this movement. This feature is particularly useful to test that there is enough vinyl to complete the rout job.

OK

Clicking on the OK button closes the Jog dialog box and continues the routing process, proceeding to either the Tiling dialog box or the Cut By Color dialog box depending on the modules installed and the choices made in the main Cut dialog box.

Move Control

The Move Control button gives immediate access to the Move Control dialog box. Move Control is where the parameters are set that are used by EZ-Engrave to drive the router (See the section later in this chapter on Move Control).

Save Default

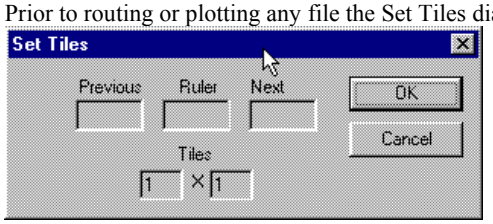
Selecting Save Default button in the Plot dialog box accepts parameter changes made to the Plot menu and saves them as the default value for the next time the Plot command is used.

OK

Clicking on the OK button closes the Cut dialog box, and moves to the next phase of the routing process. The Set Tiles dialog box will open, unless Cut By Color was selected in which case the Cut By Color dialog box will open first.

Set Tiles

Prior to routing or plotting any file the Set Tiles dialog box will open.



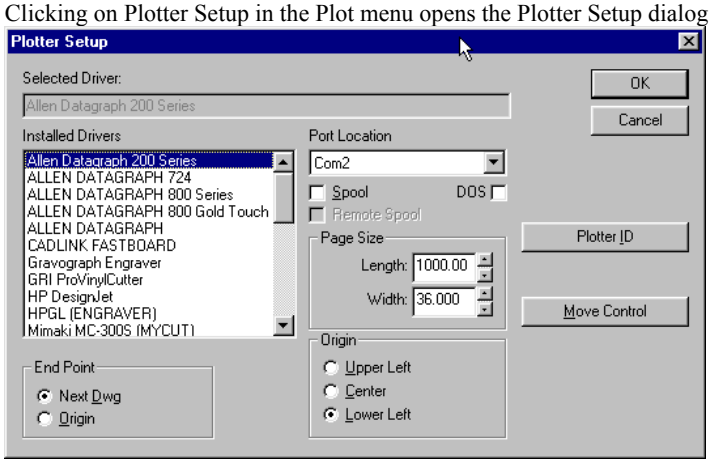
The Set Tiles dialog box displays information about the tiling lines, including:

- the position relative to the origin of the objects being printed,
- the size of the tile, and
- the number of tiles required.

Except for the number of tiles, these information boxes remain blank until a Tile line is selected. The Tiling feature for ploting and routing works in the same manner as the Tiling feature for Printing please refer to the section earlier in this chapter on Tiling.

PLOTTER SETUP

The Plotter Setup option allows for configuring EZ-Engrave to drive a particular brand of plotter. Clicking on Plotter Setup in the Plot menu opens the Plotter Setup dialog box:



Selected Driver

This box displays the name of the currently selected plotter or router.

Installed Drivers

This list box displays the complete list of all drivers installed in EZ-Engrave. It does not display those drivers which were not installed.

To select a particular brand of plotter:

- move the cursor into the Installed Drivers list box;
- click on the Scroll Arrow (if necessary) to move through the list until the particular brand required is found;
- click on it the required plotter driver.

EZ-Engrave is now ready to drive the selected plotter, the name of which will appear in the Selected Driver box.

***Note**:* If a brand of plotter does not appear on the list, the driver for your plotter has not been properly installed. See the Install Drivers option under the File Menu for more information.

Port Location

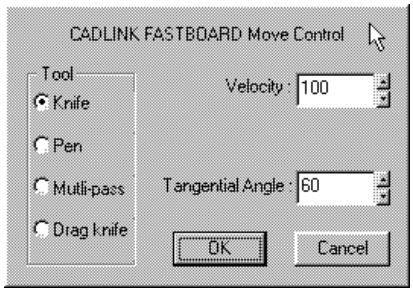
This drop down menu is used to specify the port through which the plotter is connected. To select a port, click on the required choice. There are several types of port available:

- COMM Ports, or serial ports are the recommended port of choice when supported by the router. The serial port has several features which make it the best choice, including the fact that it is designed to handle bi-directional communications (i.e., it allows the computer to communicate with the router while also allowing the router to communicate with the computer at the same time). To use the serial port to drive the plotter, set up the serial port properly from within Windows' Control Panel. For more information, consult the plotter manual.
- LPT Ports, or parallel ports are essentially printer ports. They will often work with a given plotter or router, but, unless there is some compelling reason to use an LPT port, a serial port is always a better choice.
- File, redirects the plot file to a file on the hard disk.

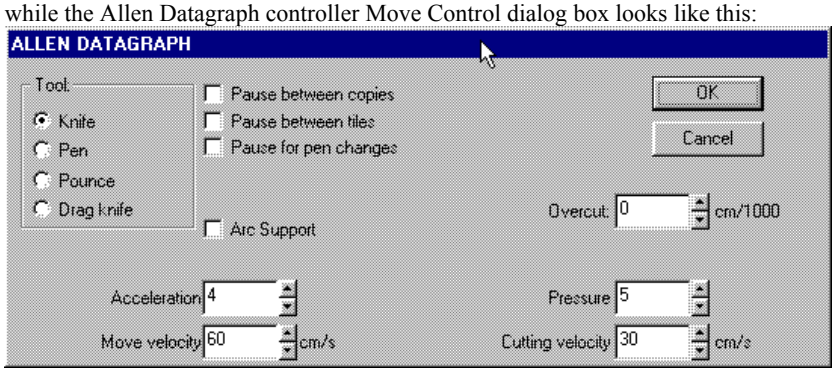
MOVE CONTROL

Move Control offers the option to set those plotter parameters that control the movement of the tool head. Define different sets of parameters for each of the different types of tools available for the specified plotter. Move Control can be accessed from the Plotter Setup dialog box, from the Plot dialog box, or directly from the Cut menu.

Select Move Control to access the Move Control dialog box for the selected plotter. For example, the Ideal Stencil FastBoard driver's Move Control dialog box looks like this:



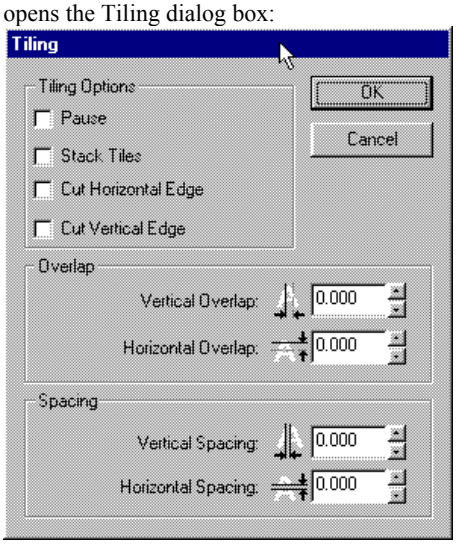
while the Allen Datagraph controller Move Control dialog box looks like this:



For full details on the parameters that appear in the plotter driver's Move Control dialog box, consult the plotter's manual.

TILING

The Tiling option in the Cut menu establish the settings for tiling large images. Selecting this option opens the Tiling dialog box:



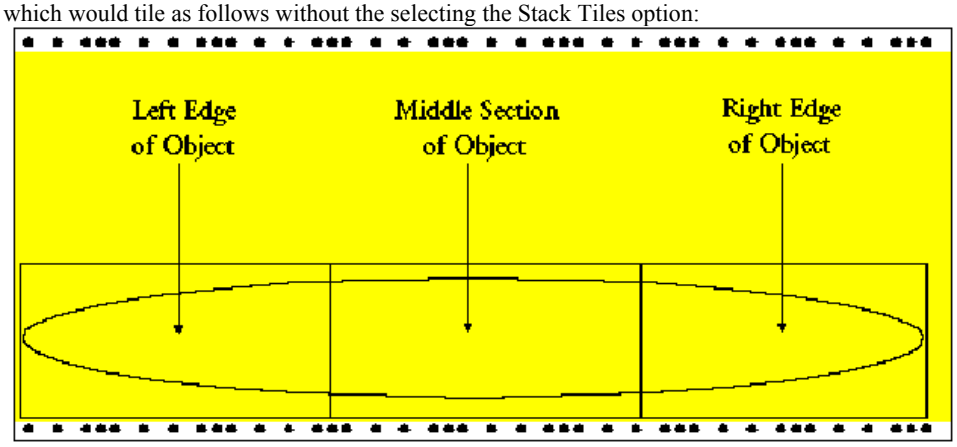
Tiling Options

Pause

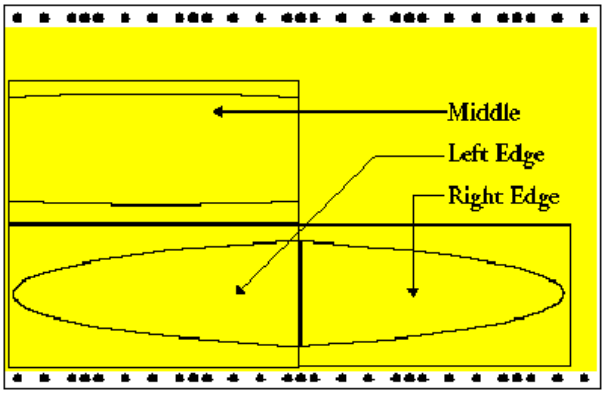
This option stops the plotter between each tile. Note that not all plotters can be paused between page boundaries. Page boundaries are set in the Plotter Setup dialog box .

Stack Tiles

When routing a file which requires tiling horizontally, but which will fit easily across the width of the vinyl, choose to Stack Tiles to reduce the amount of waste. This will cause each successive tile to be routed above the previous tile as many times as it will fit on the page width. For example, given a file which would tile as follows without the selecting the Stack Tiles option:



Selecting Stack Tiles would rout the file like this:



Rout Horizontal Edge

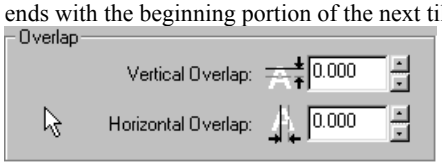
Selecting this option causes the horizontal edge of adjacent tiles to be routed. Only those edges which fall adjacent to other tile edges will be routed. Where a tile does not butt into another tile, there will be no rout tiling line. This feature is particularly useful when overlapping adjacent tiles. If this option is not selected, a rout mark will not be provided along the horizontal edges of adjacent tiles.

Rout Vertical Edge

Selecting this option causes the vertical edge of adjacent tiles to be routed. Only those edges which fall adjacent to other tile edges will be routed. Where a tile does not butt into another tile, there will be no rout tiling line. This feature is particularly useful when overlapping adjacent tiles. Not selecting this option will cause the plotter to automatically index past the page boundary without breaking the continuity of the rout. If an Xspace of zero (0) is set, do not select this option, this allows for effective routing of objects much larger than the maximum page size available for the plotter.

Overlap

This set of options specifies the amount of over-rout each tile will contain, such that each tile actually ends with the beginning portion of the next tile.



If, for example, an overlap of a ½ inch is set, the last ½ inch trailing edge of a given tile will be identical to the first ½ inch leading edge of the next tile. This function is useful when overlapping adjacent tiles to prevent gaps from appearing between the tiles due to material shrinkage.

Vertical Overlap

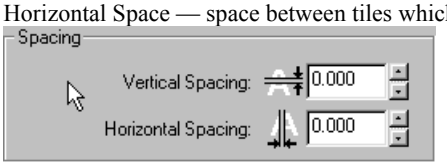
The value entered into this option specifies the amount of overlap desired along the vertical rout edge of adjacent panels.

Horizontal Overlap

The value entered into this option specifies the amount of overlap desired along the horizontal rout edge of adjacent panels.

Spacing

This setting is used to specify the amount of material which is to be left unrout between tiles when routing a job. Specify either a Vertical Space — space between two tiles which are side by side; or a Horizontal Space — space between tiles which are one above the other on the material.

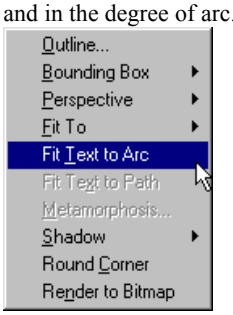


***Note**:* This Tiling box is the same box as that in which the tiling parameters for printing are specified. Therefore, the rules that are set regarding Tiling in this dialog box will also be applied to the Tiles generated when printing a file.

TRANSFORM MENU

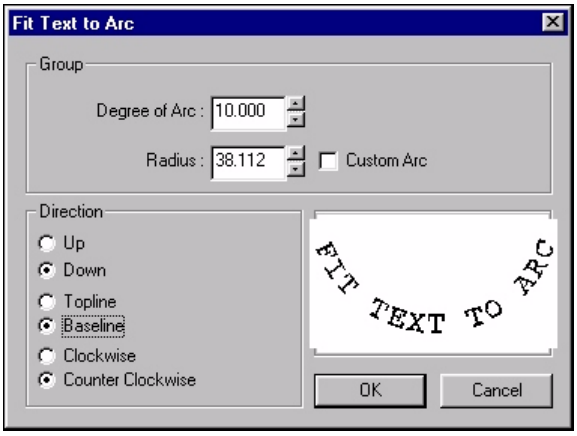
FIT TEXT TO ARC

This feature positions a line of text on an arc. The arced text can be made to vary in radius, in direction and in the degree of arc. Fit Text To Arc is found in the Transforms menu.



Note: Fit Text To Arc is only available if the Professional Text Compose module is activated.

More than one line of text can be fit to an arc in a single operation. To implement Fit Text To Arc, select the line(s) of text to be arced and click on the Fit Text To Arc option under the Transforms menu. The Fit Text To Arc dialog box appears:



Direction

Up & Down

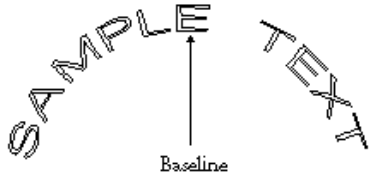
Selecting the Up option lays the text along an arc that bows upward in the middle. The Down option fits the text to a downward facing arc.

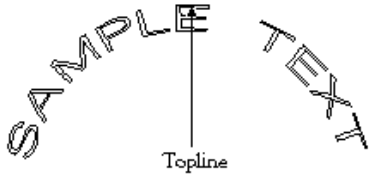
Up option

Down option

Baseline & Topline

Selecting the Baseline option causes the baseline of the selected text to fall along the edge of the specified arc. Selecting the Topline option causes the topline of the bounding box that contains the selected text to the specified arc.

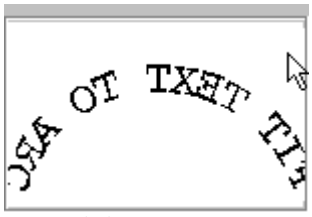




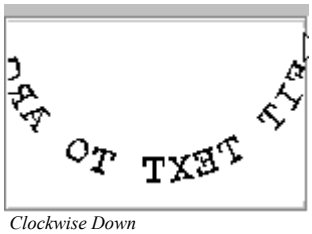
Clockwise & Counter-clockwise

Selecting either of these options causes the text to be fit in a **Clockwise** or in a **Counter-clockwise** onto the arc as shown below:

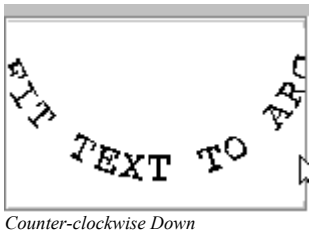
Clockwise Up



Counter-clockwise Up



Clockwise Down



Counter-clockwise Down

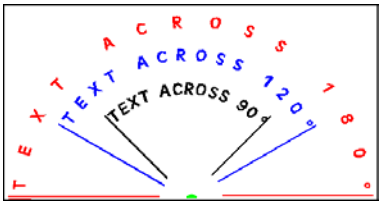
An approximation of the visual representation of the choice of arc is displayed in the arc view box.

Group

Degree of Arc

When fitting text to an arc, the text occupies a portion of the defined arc, and the occupied portion of the arc is measured in degrees. The Degree Of Arc defines how large a piece of the arc the text will occupy. For example, a setting of 90 will result in the text being fit to a section of the arc which

measures 90°.



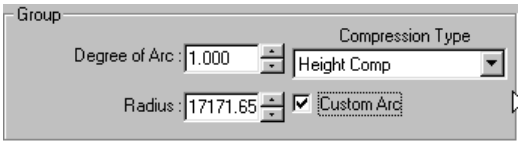
Radius

When text is fit to an arc, the arc itself is treated as a portion of a circle. The Radius setting determines the distance between the arc and the center of the circle that includes the arc. A smaller Radius setting produces a more curved line of text, while a larger Radius produces an arc which more closely approximates a straight line.

Degree Of Arc and Radius are interdependent, as they specify the available space for the line of text, the length of which is usually fixed. As a result, changes to one of these settings will result in changes automatically being applied to the other. The exception to this occurs when the Custom Arc option is activated.

Custom Arc

Activating the Custom Arc option adds new options to the Group section of the Fit Text to Arc dialog box.



Custom Arc allows for specification of both the Radius and the Degree of Arc without regard for the actual length of the text being fit into the available space. This is accomplished by applying a Compression/Expansion routine to the text string to force it to fit onto the specified arc. There are three options available for fitting the text into the specified space: Height Compression; Width Compression, and Kerning Compression.

Height Compression

Height Compression forces the line of text to the required length by increasing or decreasing the height of the characters as necessary. Character Width and Height will also be scaled proportionately.

Width Compression

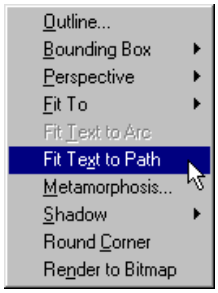
Width Compression forces the line of text to the required length by increasing or decreasing the width of the characters as necessary. Character Kerning will also be scaled proportionately, but character Height will not be affected.

Kerning Compression

Kerning Compression forces the line of text to the required length by increasing or decreasing the space between the characters as necessary. Character Width and Height will not be affected.

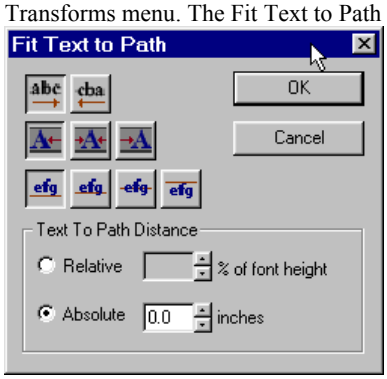
FIT TEXT TO PATH

This feature positions a line of text on an path. The text can be to follow the path based on the direction and alignment, and can be set to the baseline of the text or raised or lowered depending on selections made. Fit Text to Path is found in the Transforms menu.

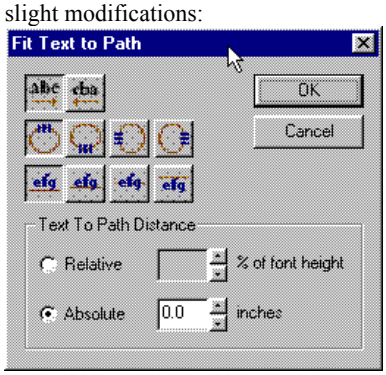


Note: Fit Text to Path is only available if the Professional Text Compose module is activated.

More than one line of text can be fit to a path in a single operation. To implement Fit Text to Path, select the line(s) of text as well as the path and click on the Fit Text to Path option under the Transforms menu. The Fit Text to Path dialog box appears:



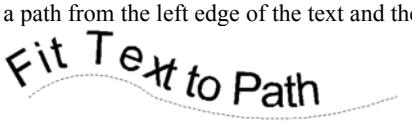
If the object selected for use as a path is a closed path the Fit Text to Path dialog box appears with slight modifications:



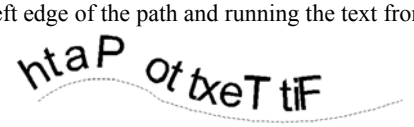
Direction

Left to Right & Right to Left

Selecting the Left to Right button lays the text along a path starting from the left edge of the text and the left edge of the path and running the text from left to right. The Right to Left button fits the text to a path from the left edge of the text and the left edge of the path and running the text from right to left.



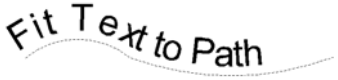
Left to Right option



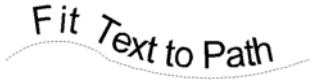
Right to Left option

Alignment

Alignment offers the ability to align the text and path to the Left, Center, or Right.



Aligned Left



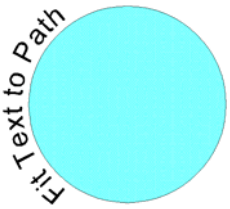
Aligned Center

Aligned Right

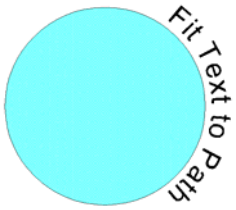
Or if the path selected is a closed path the alignment can be Top, Bottom, Left, or Right.

Aligned Top

Aligned Bottom



Aligned Left



Aligned Right

Baseline Alignment

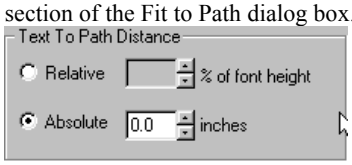
Selecting the Baseline Alignment options causes the baseline of the selected text to fall along the edge of the specified path as designated by one of four choices: Align to Baseline; Align to X descender; Align to Center Line; and Align to Ascender Line.

Align to Baseline

Selecting the Align to Baseline fits the text to path such that the path is aligned to the bottom of the descender characters of the text. Selecting the Align to Baseline option activates the Text to Path Distance options. Any settings for distance will align the text that much further above the path.

Fit to Path Distance

Selecting the Align to baseline or the Align to Ascender Line options activates the Fit to Path Distance section of the Fit to Path dialog box.



The text can be set to fit the path a specified distance above (or below) the path. This distance can be determined as a Relative percentage of the font height or as and absolute measurement in the unit of measurement determined in the General Preferences dialog box.

Fit to Baseline with a Relative distance of 50%

Align to X descender

Selecting the Align to X descender fits the text to the path such that the path is aligned to the bottom of the X characters in the line of text, in other words all descenders will fall below the path.

Align to Center Line

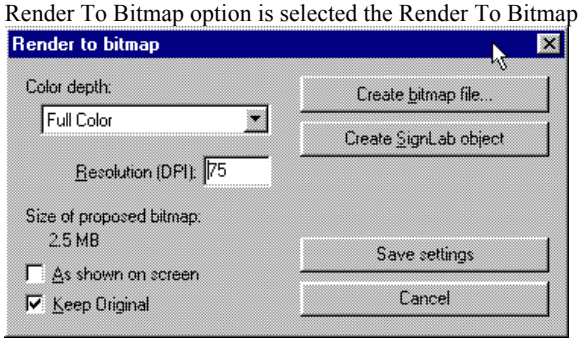
Selecting the Align to Center Line fits the text to path such that the path is aligned through the center line of the characters of text.

Align to Ascender Line

Selecting the Align to Ascender Line fits the text to path such that the path is aligned to the top of the ascender characters of the text. As in the Align to Baseline option the Text to Path Distance options are made available. Any settings for distance will align the text that much further below the path.

RENDER TO BITMAP

Selecting the Render To Bitmap option converts any selected vector or bitmap object. When the Render To Bitmap option is selected the Render To Bitmap dialog box opens.



Color Depth

Monochrome..... converts the selected objects to black and white bitmaps;

16 gray levels..... converts the selected objects to gray scale bitmaps with 16 shades;

256 gray levels..... converts the selected objects to gray scale bitmaps with 256 shades of gray;

16 colors ..... converts the selected objects to 4-bit color bitmaps with 16 colors;

256 colors..... converts the selected objects to 8-bit color bitmaps with 256 colors.

Full color ..... converts the selected objects to 24-bit color bitmaps with millions of colors;

Resolution

The resolution is measured in Dots Per Inch (DPI), and is set manually, the default screen resolution appears in the box.

As Shown On Screen

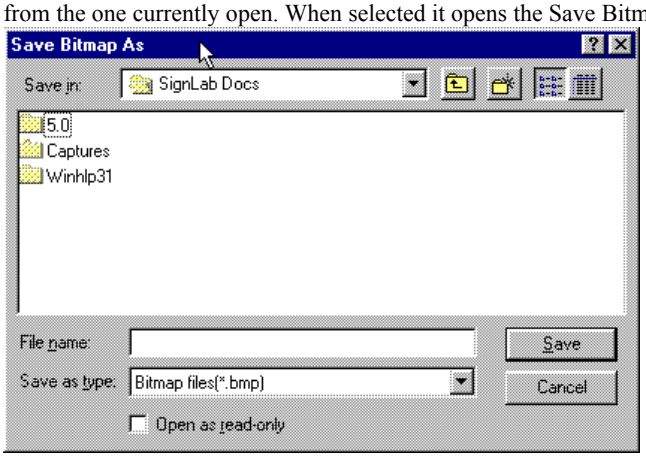
When selected this option causes the bitmap to be created using the current screen settings for Color Depth and Resolution.

Keep Original

When selected this option will cause the bitmap to be rendered as a duplicate leaving the original object as it was. This option does not apply if the bitmap is being rendered to a file instead of to a EZ-Engrave Object.

Create Bitmap File

Selecting the Create bitmap file button causes the bitmap to be rendered and saved to a separate file from the one currently open. When selected it opens the Save Bitmap As dialog box.



Save In

The Save In box displays the current path for the directory/folder, that the file will be saved in. Select within the path structure by clicking on specific directories in the Folders list box.

File Name

Insert the File Name for the bitmap file in the File Name box, to replace a file listed in the Files list box, click on the file and the name will appear in the File Name box.

Save As Type

There is only one option available from this list box and that is bitmap, though the All Files option can be selected, the file will be saved as a bitmap.

Open as Read Only

Select the Open as Read Only check box to create a bitmap file that is designated as read only and can be viewed but not edited.

Create EZ-Engrave Object

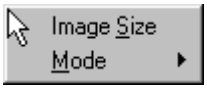
Selecting the Create EZ-Engrave Object button causes EZ-Engrave to render the bitmap as a new object within the currently open file.

Save Settings

Clicking the Save Settings button saves the current settings within the Render To Bitmap dialog box and applies them as the default settings to be used the next time the Render To Bitmap is used.

IMAGE MENU

IMAGE



The Image menu is only available with the Special Effects module.
This menu contains tools for Image editing.

***Note**:* This menu is only available when advanced modules have been purchased from Ideal Stencil or one of its authorized re-sellers. Refer to Chapter 4 — Special Effects for more information on these tools.

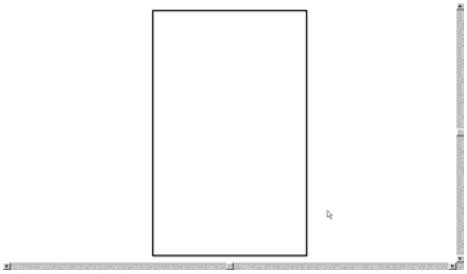
VIEW MENU

VIEW

The View option specifies the various objects to have visible on screen when working in EZ-Engrave.

SHOW SIGN BLANK

To have a sign blank displayed on screen, select this option. Define the size of the sign blank by selecting Blank Size from the Layout menu. A small check mark beside the option indicates that it is selected.

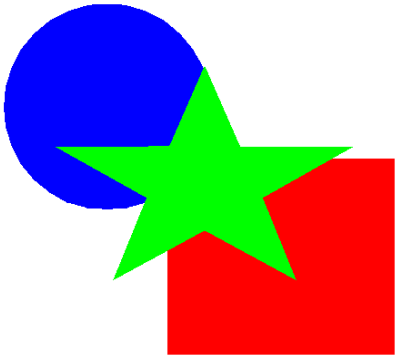


Show Sign Blank on.

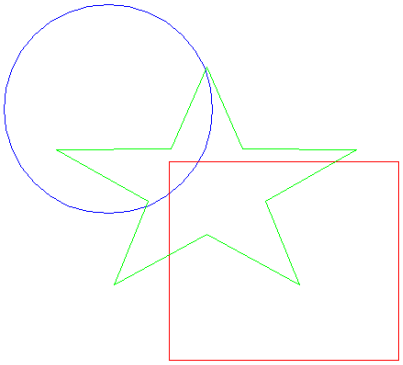
Show Sign Blank off.

SHOW FILL

This option provides the opportunity to display objects as filled on screen, or as simple wire frames. Wire frames redraw more quickly than filled objects, but filled objects give a better representation of the file. To display object fills on screen, select the Show Fill option. A small check mark beside this option indicates that it is selected.



Show Fills on;

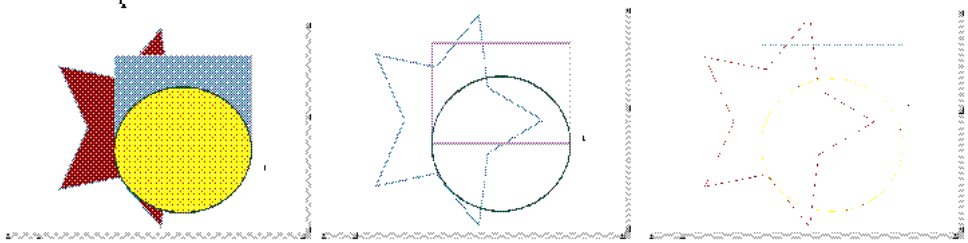


Show Fills off.

Keyboard Shortcut: [Alt + S]

SHOW LINE STYLE

Select this option to display thick lines that have been applied to any on-screen objects. A check mark beside the option indicates that it is selected.

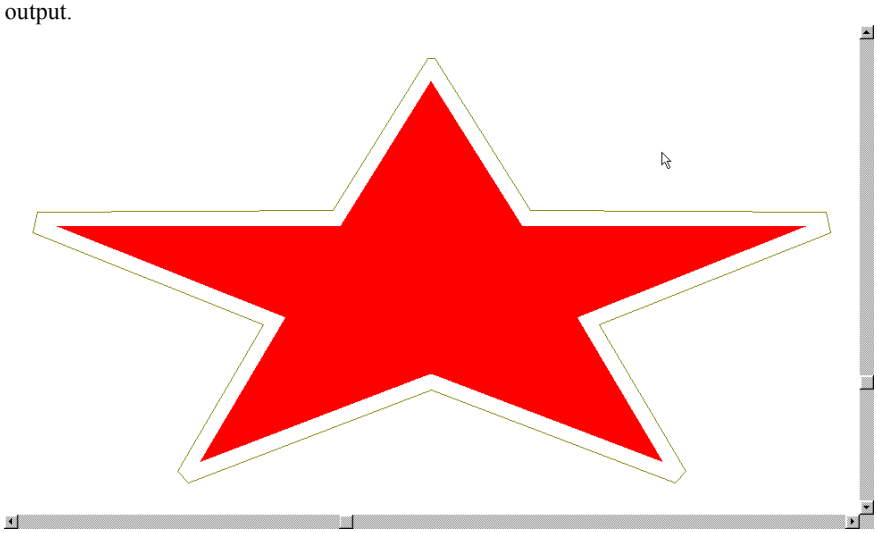


Show Line Style and Fills on; *Show Line Style on — Fills off;* *Show Line Style and Fills off.*

Keyboard Shortcut: [Alt + N]

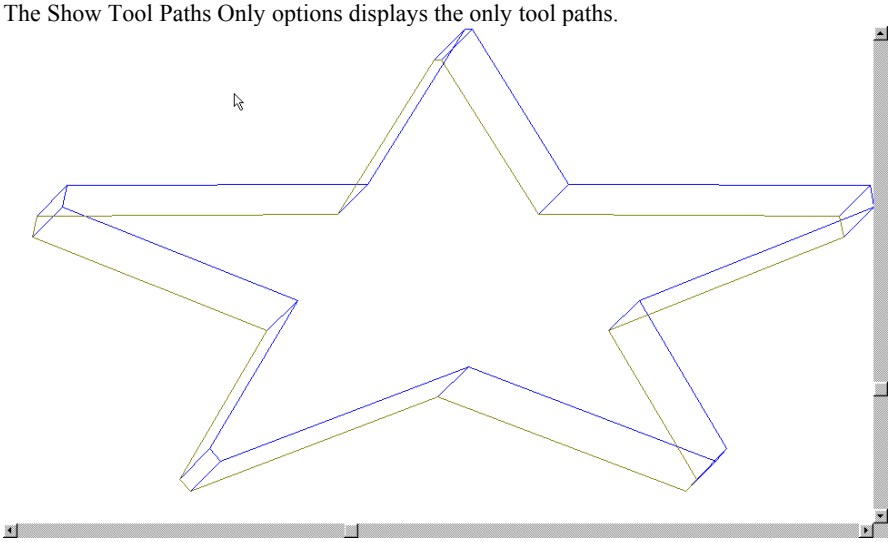
SHOW TOOL PATHS

The Show Tool Paths option display any tool paths created for fill routines and routing or engraving output.



SHOW TOOLS PATH ONLY

The Show Tool Paths Only options displays the only tool paths.



Show Tool Paths with Show 3D also activated.

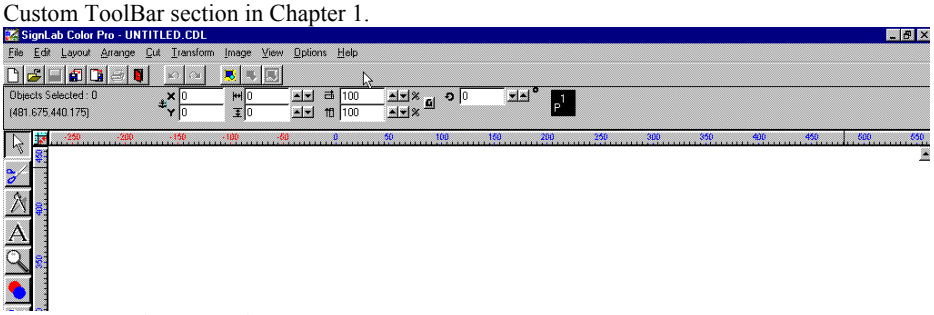
SHOW RULERS

To display the rulers to the right of and at the bottom of the view screen, select this option. To use the space for more view screen area, deselect the Show Rulers option. A small check mark beside the option indicates that it is selected. The Rulers must be displayed in order for the Guideline functions to be available.

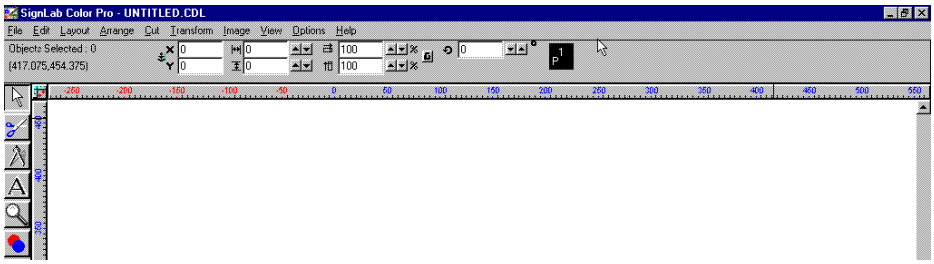
Keyboard Shortcut: [Alt + R]

SHOW CUSTOM TOOLBAR

The Show Custom ToolBar option activates the Customizable ToolBar for more information see the Custom ToolBar section in Chapter 1.



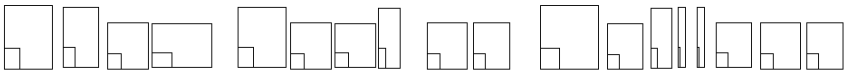
Show Custom ToolBar activated.



Show Custom ToolBar de-activated.

SHOW TEXT OUTLINES

In order to increase the redraw speed, display text as simple wire frame boxes. Wire frames redraw far more quickly than text, this option has the potential to speed up work substantially, whenever working with text. A small check mark beside this option indicates that it is selected.



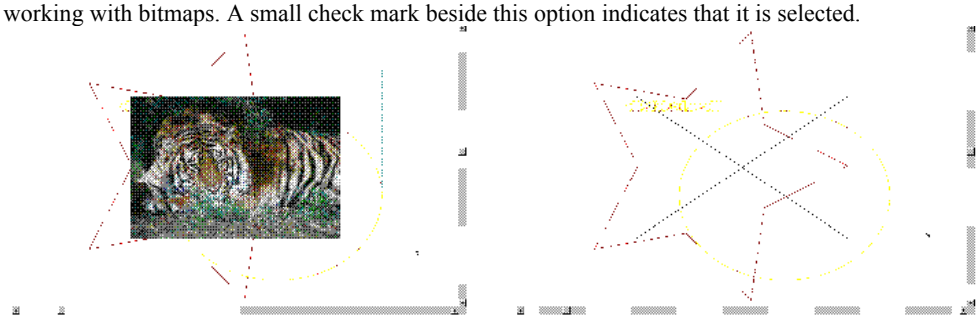
Show Text Outlines activated

Show Text as Outlines

Show Text Outlines de-activated

SHOW BITMAP AS OUTLINES

As a rule, bitmaps will redraw more slowly on screen than other objects in EZ-Engrave. In order to increase the redraw speed, display bitmaps as simple wire frame boxes. Wire frames redraw far more quickly than most bitmaps, this option has the potential to speed up work substantially, whenever working with bitmaps. A small check mark beside this option indicates that it is selected.

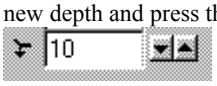


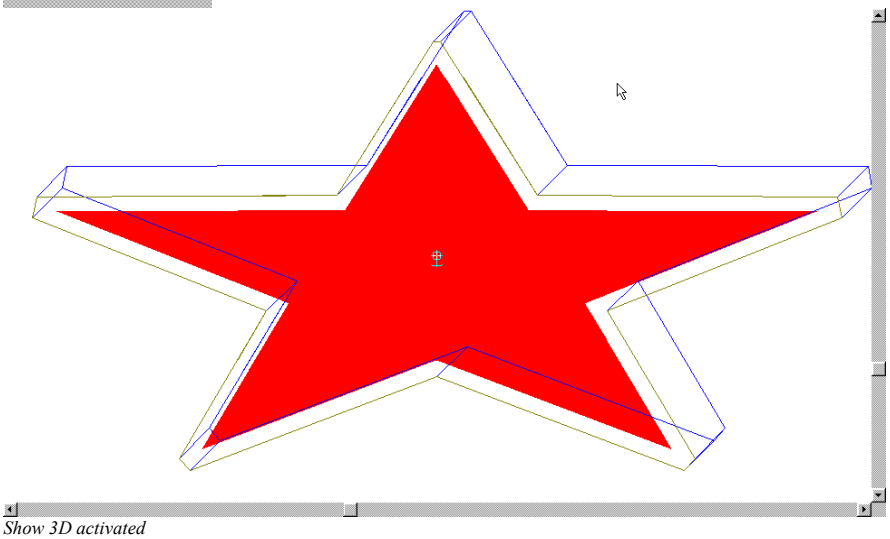
Show Bitmap As Outlines off; *Show Bitmap As Outlines on.*

Keyboard Shortcut: [Alt + M]

SHOW 3D

The Show 3D option applies to any vector that has a tool path applied. This will display a 3D simulation on screen of the actual rout depth. Show Tool Paths must be activated for Show 3D to function. When a tool path object is selected the depth entry box is displayed in the Status Bar. Enter a new depth and press the Enter key or use the arrow buttons to adjust the Tool Path depth.

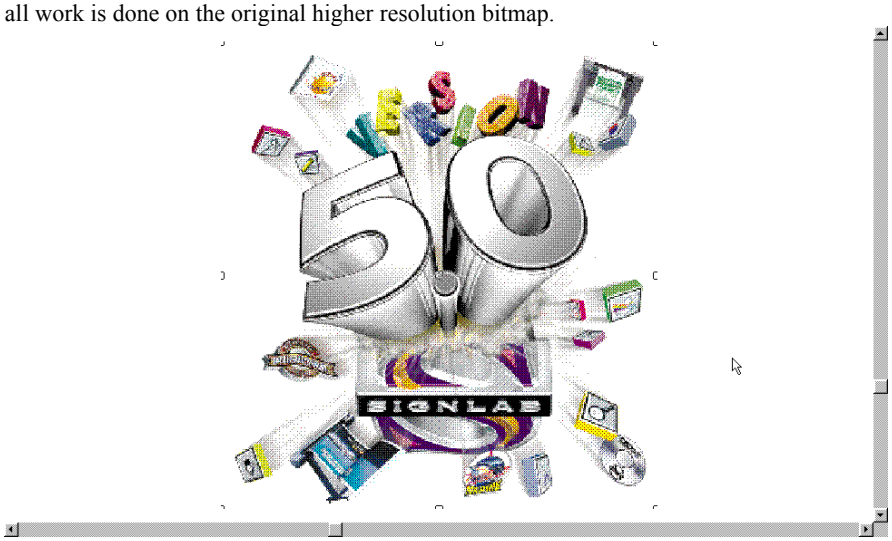




Show 3D activated

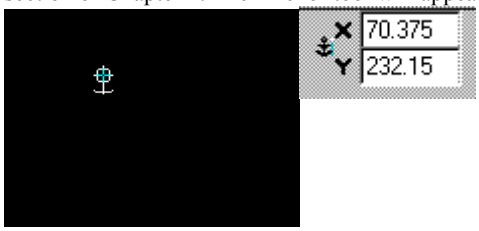
SHOW REDUCED BITMAPS

The Show Reduced Bitmaps speeds the work time while still providing a visual guide when editing bitmaps. EZ-Engrave reduces the color depth and resolution of the bitmap for display purposes only, all work is done on the original higher resolution bitmap.



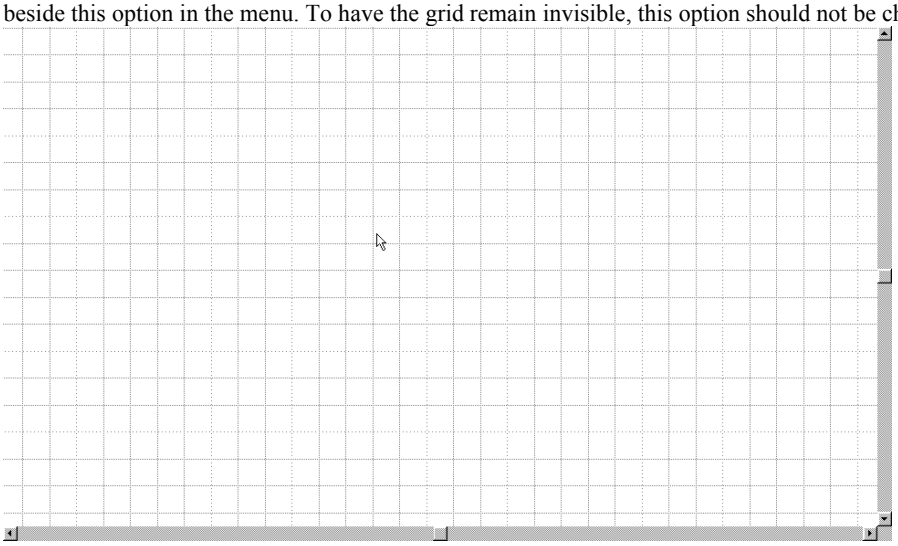
SHOW ANCHOR TOOL

Selecting this option activates the Anchor tool for use. This tool is described in detail in the Status Bar section of Chapter 1. The Anchor tool will appear with selected objects as well as on the Status Bar.



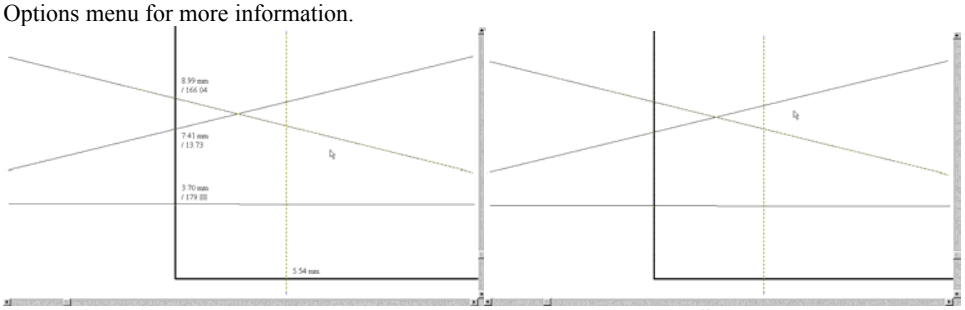
SHOW GRID

This option controls whether or not the grid is visible on screen. To see the grid, set a check mark beside this option in the menu. To have the grid remain invisible, this option should not be checked.



SHOW GUIDE LABELS

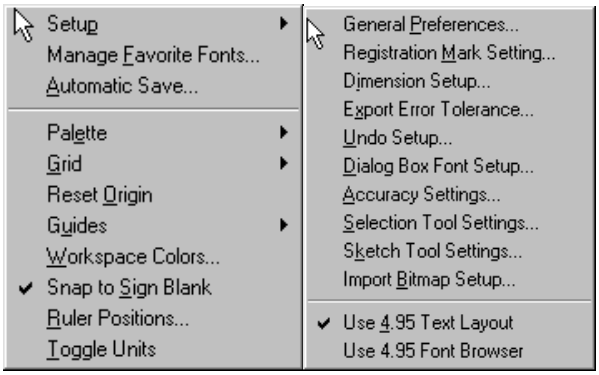
With the addition of the new expanded Guidelines features comes the option to use Guide Labels these labels provide the measurement in relation to the Sign Blank for the placement of the Guide. When this option is activated the Guides show with measurement labels. See the section on Guideline in the Options menu for more information.



Show Guide Labels On *Show Guide Labels Off*

OPTIONS MENU

OPTIONS



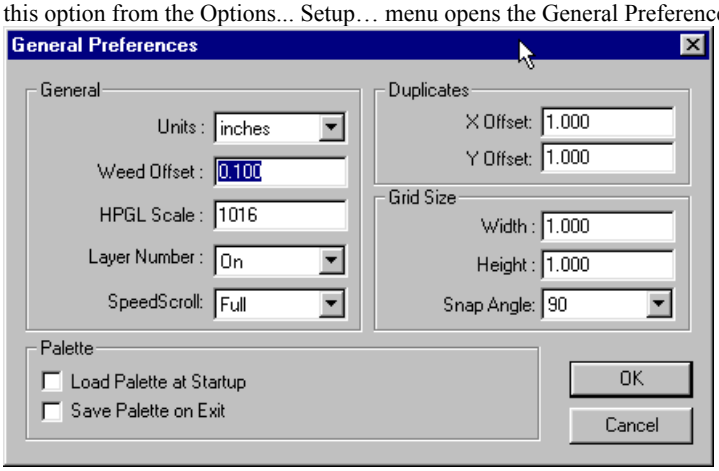
The Options menu links to dialog boxes that customize aspects of the user environment of EZ-Engrave and its features and functions.

EZ-ENGRAVE SETUP

The EZ-Engrave Setup fly-out menu contains choices for accessing dialog boxes that control EZ-Engrave setup functions specifically.

General Preferences

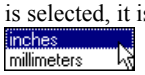
General Preferences is used to set preferences which govern the operation of EZ-Engrave. Selecting this option from the Options... Setup… menu opens the General Preferences dialog box.



General

Units

Choose between imperial measurements (i.e., inches) and metric. Once a standard unit of measurement is selected, it is used throughout EZ-Engrave.



Weed Offset

The Weed offset is used to specify the distance between selected objects and the weed border placed by the Weed Border and Power Weed tools from the Shapes fly out menu.

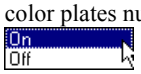
HPGL Resolution

The HPGL Resolution entry box is used with the File Capture feature of EZ-Engrave. Capturing a file from a plotter involves listening to a plotter perform a plot job, interpreting the move commands it issues, and recreating the plot on screen. But to capture a file properly, the resolution at which the plotter functions is required, so that EZ-Engrave interprets the move controls properly. If EZ-Engrave is not aware of the resolution of the plotter, the resulting captured file will typically be out of scale.

For example, The HP 7475 plotter has a resolution of 1016 steps per inch. If the HPGL file being captured by EZ-Engrave was originally configured for a Hewlett Packard 7475 plotter in the third party application where it originated, edit the HPGL Resolution to read 1016 so that it would be captured at the correct scale (size).

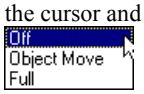
Layer No.

The Layer Number option is used to display the ordinal number of each of the color plates. To see the color plates numbered, select On, select Off not to have the palette numbered.



Speed Scroll

Speed Scroll allows the view screen to move, following the cursor when it leaves the main viewing area. For example, stretch an object to a point off screen, the screen will scroll to maintain pace with the cursor and keep it on screen.



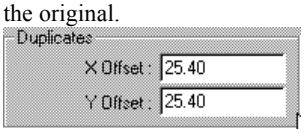
There are three different options that control Speed Scroll:

- Off, turns off the feature so that the view screen remains stationary without using the scroll bars;
- Object Move, restrict the automatic scrolling of the view screen to those situations where an object is being moved;
- Full, fully enables the automatic Speed Scroll — any time the cursor is dragged off the view screen, the view screen follows.

Duplicates

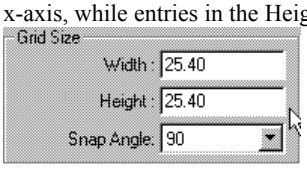
Use the Duplicate function in EZ-Engrave to place the duplicate object in a specific position relative to the original object. The X Offset and Y Offset are the amounts that a duplicate copy will be offset from

the original.



Grid Size

The values entered into the Width and Height edit boxes are used to construct the alignment grid in EZ-Engrave. Values entered into the Width entry box define the spacing between grid lines along the x-axis, while entries in the Height box determine the grid line spacing along the Y-axis.

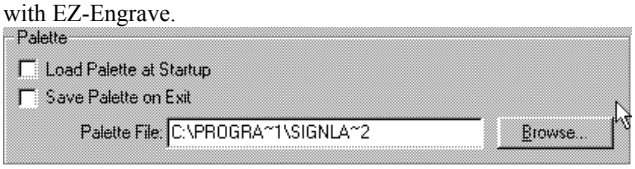


Snap Angle

Specify the angle that the Fit to Corner tool will snap to when editing line segments and corners in the Edit tools. As discussed in the section of the manual concerning the Segment Edit tool, the angle can be constrained to a specific set of values by holding the [Control] key while adjusting the corner.

Palette

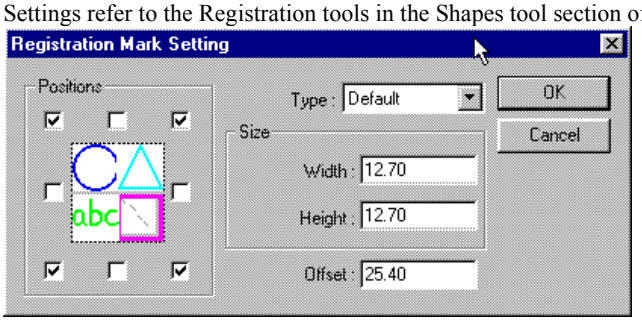
Develop and configure palettes, or a permanent palette, as alternatives to the default palette supplied with EZ-Engrave.



The Palette controls are described in detail in the Color Palette section of this chapter.

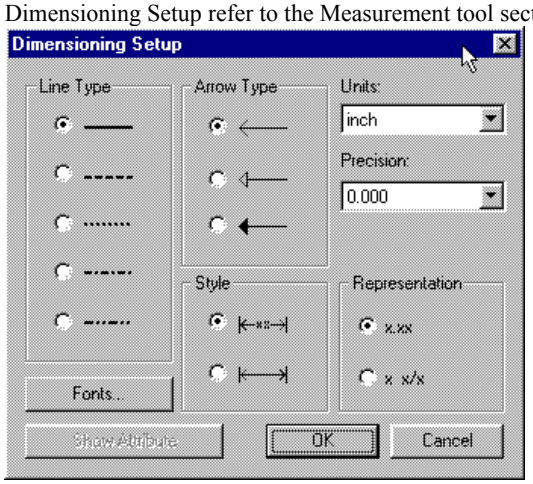
Registration Mark Settings

When selected, this option allows the operator to specify a size and pattern for the placement of registration marks around any selected drawing. Registration marks are placed automatically with the use of either of the Registration tools. Clicking on this option or right-clicking on the Registration tools opens the Registration Mark Setting dialog box. For more information about the Registration Mark Settings refer to the Registration tools in the Shapes tool section of this chapter.



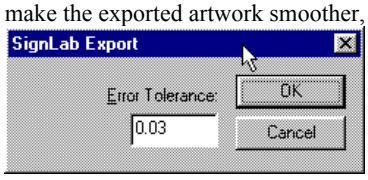
Dimension Setup

When using the Dimensioning tools (which are a feature of the Measure tool), pre-configure and format the appearance of the dimensions and notes. To do so, select Dimension Setup in the Options… EZ-Engrave Setup… menus, and set the preferences in the Dimensioning Setup dialog box. The dialog box is also available by right-clicking any of the Measurement tools, for more information about the Dimensioning Setup refer to the Measurement tool section of this chapter.



Export Error Tolerance

When exporting a file from EZ-Engrave, the resulting file sometimes contains a very large number of nodes. This is especially true of artwork that was originally imported from another software. To combat this problem, EZ-Engrave allows exporting of files using a certain tolerance level, this will make the exported artwork smoother, and substantially reduce the number of required nodes in the file.

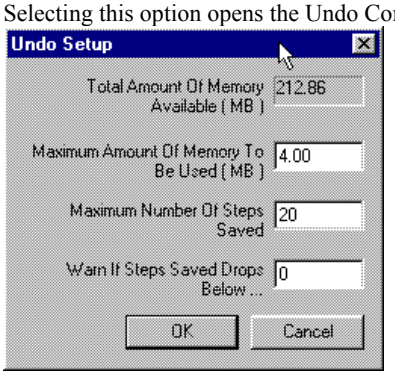


Specify the acceptable amount of error in the Error Tolerance edit box. This box uses the unit of measurement specified in the General Preferences dialog box as its standard (i.e., inches or millimeters).

We caution against entering a high value in this box, as the Export Error Tolerance may introduce distortion into the exported objects if set for a very high tolerance. As a rule, the default value (0.001 or 1/1,000 of an inch) will work very well with most files.

Undo Setup

Selecting this option opens the Undo Control dialog box:



Because Undo information is stored in memory (and later, on the hard drive when all memory is exhausted), maintaining a large Undo Stack can result in a substantial loss of performance, even on the fastest systems. The Undo Control dialog box limits the resources that can be allocated to the Undo feature of EZ-Engrave in two ways:

Specify the maximum number of operations to be maintained in the Undo Stack by entering a reasonable number into the Maximum Number Of Steps Saved field.

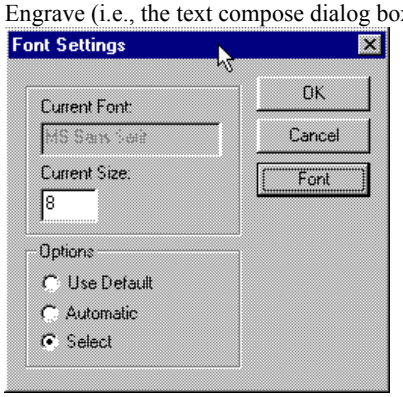
Enter the Maximum Amount Of Memory To Be Used for Undo resources. In other words, specify the amount of memory that will be used by Undo, the rest to be reserved for other uses.

EZ-Engrave will maintain operations in the Undo Stack until either one of the specified limits is reached. Our recommended settings are as follows: allow no more than 10 operations in the Maximum Number Of Steps Saved; and use an amount of memory which is equal to half of the physical memory (RAM) in the computer. These settings will ensure a reasonable balance between the needs of the Undo Stack and the overall speed of the computer.

> ***Note:*** While the concept of unlimited Undo may seem attractive, it can, in fact represent a substantial and unnecessary drain on system resources, and therefore system speed. Ideal Stencil recommends being conservative when allocating resources for use by the Undo Stack.

Dialog Box Font Setup

The Dialog Box Font Setup is used to determine the font to be used for all dialog boxes used in EZ-Engrave (i.e., the text compose dialog box).



Current Settings

The Current Settings box displays the currently selected font and font size being used for the dialog box font.

Options

The Options box provides three choices for dialog box font settings:

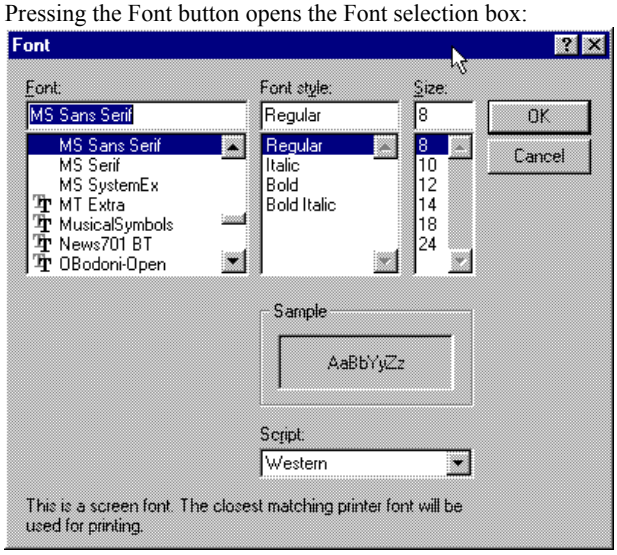
Use Default..... uses the standard windows font for the dialog boxes;

Automatic ..... uses the most appropriate font available; and

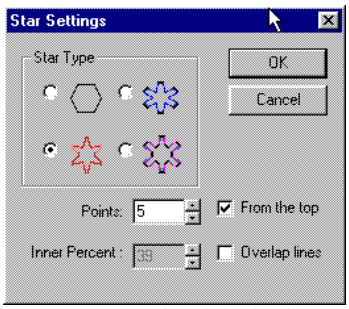
Select ..... causes the Font  button to appear.

Font

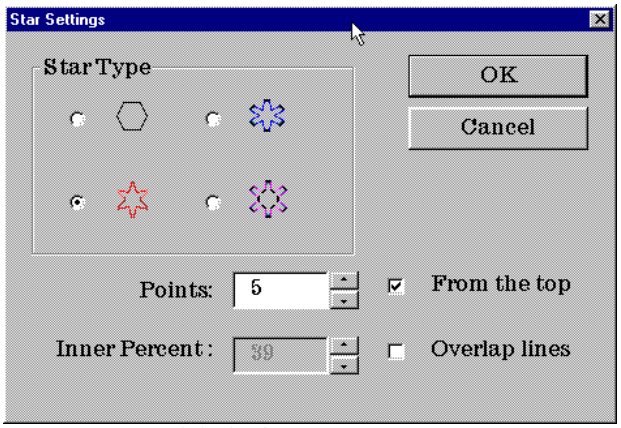
Pressing the Font button opens the Font selection box:



Choose a Font, Font style, Size, and Script option and press OK to accept the selection and return to the Dialog Box Font Setup, or press Cancel to return to the Dialog Box Font Setup without applying the changes.



Using MS Sans Serif 8pt dialog box font.

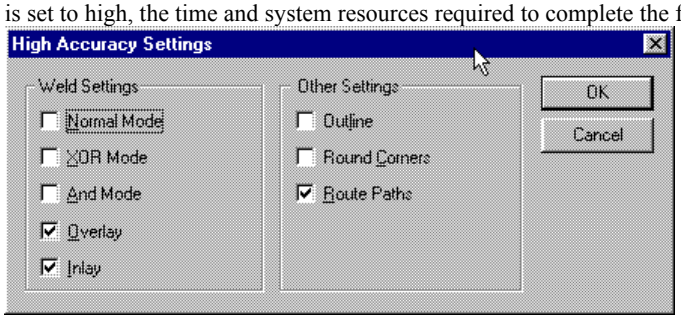


Using News701BT 12 pt dialog box font.

Note: Use caution when selecting fonts, large fonts can cause the dialog boxes to enlarge to where they do not fit on the screen, and small or fancy fonts can be illegible.

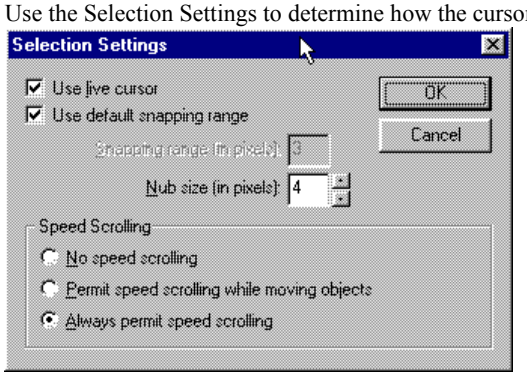
Accuracy Settings

The High Accuracy Settings control how accurately certain functions are to be performed in EZ-Engrave (i.e., if all nodes will be traced to create a highly accurate outline or if only half of the nodes are traced to create an inaccurate outline). Any and all of the Weld tools can be set to high accuracy levels as well as the Outline/Inline, Round Corners, and Route Paths. Keep in mind that if the accuracy is set to high, the time and system resources required to complete the function will be more.



Selection Tool Settings

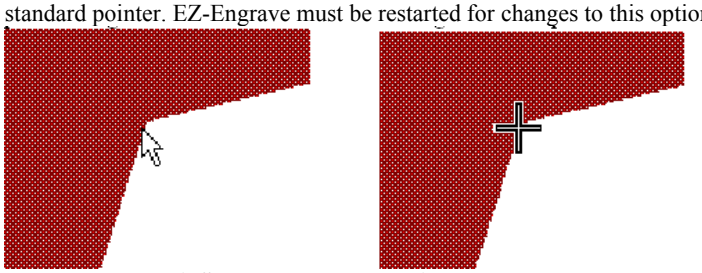
Use the Selection Settings to determine how the cursor respond to commands in EZ-Engrave.



Among the choices available are:

Use Live Cursor

Use Live Cursor causes EZ-Engrave to recognize when the cursor passes over an object, the pointer icon for the cursor converts to cross-hairs. If Use Live Cursor is turned off the cursor remains the standard pointer. EZ-Engrave must be restarted for changes to this option to take effect.



Use Live Cursor turned off. *Use Live Cursor turned on.*

Use default snapping range

The snapping range refers to the distance from a line or grid where EZ-Engrave assumes the selected object should snap to the nearest grid or line The default snapping range of three pixels is used when this option is turned on (i.e., if the edge of an object is within three pixels of a grid EZ-Engrave will automatically move the object so the edge is on the grid.

Snapping range in pixels

Set the Snapping range, in pixels, to any size greater than zero, a low value is preferable when working in small scale, a high value when worker in large scale.

Nub size in pixels

Edit the size of the nubs to any range greater than zero, a low value is preferable when working in small scale, a high range is preferable when worker in large scale (i.e., when working on objects less than twenty pixels wide set the nub size to one or two pixels, when working on objects greater than twenty feet wide set the nub size to a larger pixel value).

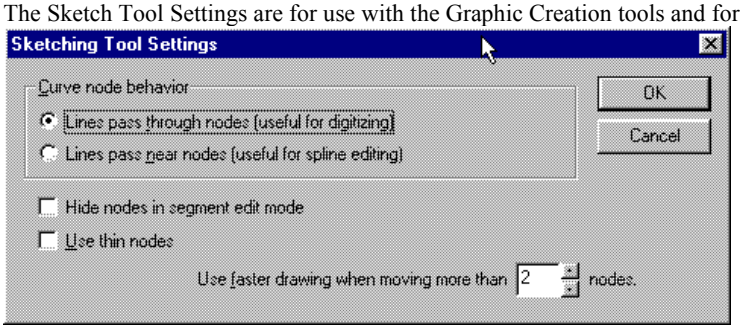
Speed Scroll

Speed Scroll allows the view screen to move, following the cursor when it leaves the main viewing area. For example, stretch an object to a point off screen, the screen can scroll to maintain pace with the cursor and keep it on screen. There are three different options that control Speed Scroll:

- No speed scrolling, turns off the feature so that the view screen remains stationary without using the scroll bars;
- Permit speed scrolling while moving objects, restricts scrolling of the view screen to situations where objects are being moved;
- Always permit speed scrolling, fully enables the automatic Speed Scroll — any time the cursor is dragged off the view screen, the view screen follows.

Sketch Tool Settings

The Sketch Tool Settings are for use with the Graphic Creation tools and for editing vector graphics.

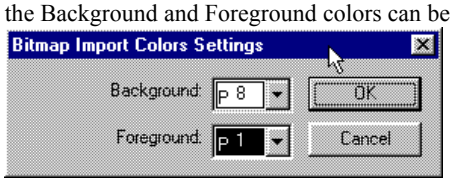


Lines pass through nodes as stated will cause the lines to pass directly through the center of a given node. Lines pass near nodes will cause the line to pass near but not touching or over the node. EZ-Engrave must be restarted for changes to take effect.

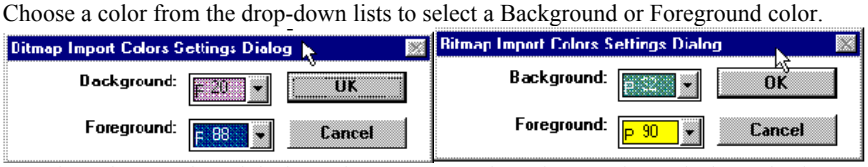
Lines pass through nodes. *Lines pass near nodes.*

Import Bitmap Setup

Import Bitmap Setup opens the Bitmap Import Colors Settings dialogue box. Within this dialog box the Background and Foreground colors can be designated for monochrome bitmaps that are imported.

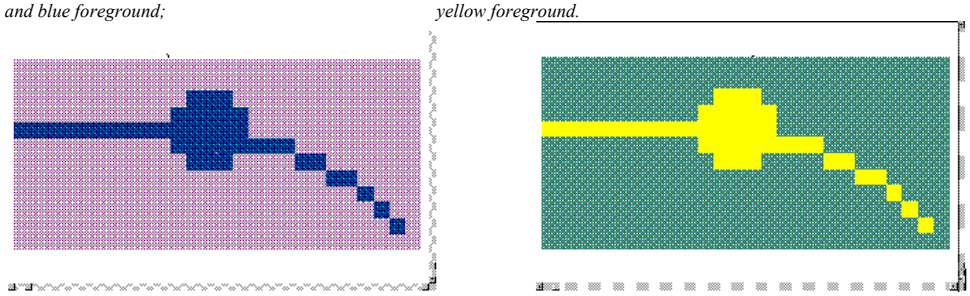


Choose a color from the drop-down lists to select a Background or Foreground color.



Monochrome bitmap with purple background and blue foreground;

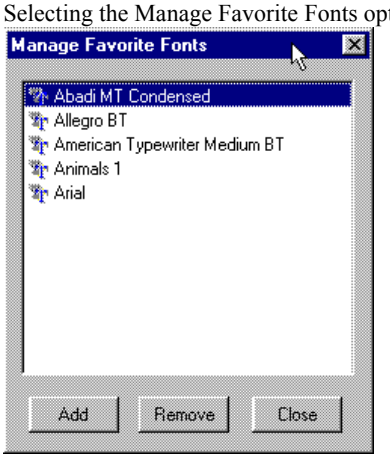
Monochrome bitmap with green background and yellow foreground.



MANAGE FAVORITE FONTS

EZ-Engrave will store and retain a list of Favorite Fonts, those fonts most often used. For example, if the most common font being used regularly is a Helvetica style of font from a particular manufacturer, place all variations of that font (i.e., normal, bold, bold-italic, and italic) into the Favorite Fonts list.

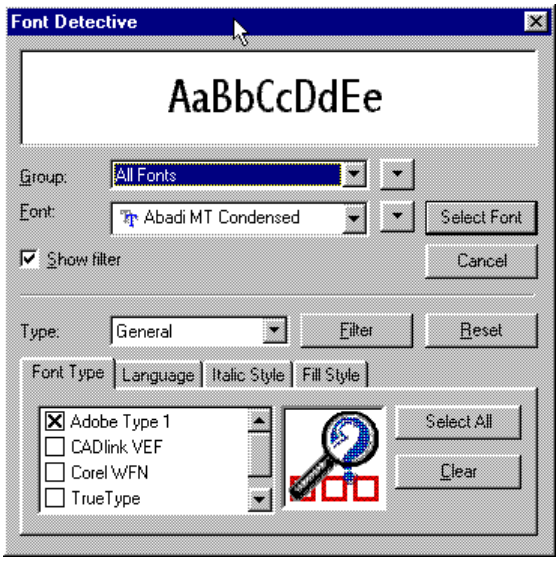
Selecting the Manage Favorite Fonts option opens the Favorite Font dialog box:



This box displays the names of the fonts currently designated as Favorite Fonts. From within this dialog box, add fonts to the list, remove fonts from the list, or close the dialog box, by simply pressing the appropriate button. The first time the Favorite Fonts list is opened there will be no fonts listed.

Add

Pressing the Add button produces the Font Detective dialog box to navigate through the system to add fonts to the Favorite Font list. See the Font Detective section of Chapter 3 — Text Compose for detailed information on how to use Font Detective.



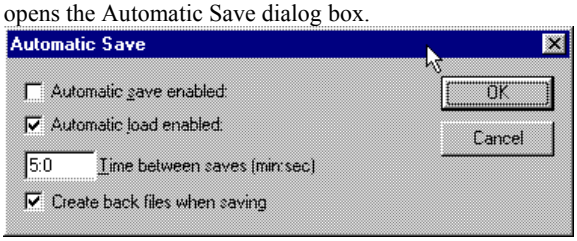
Select the Font of choice via the Font Detective and press the Select Font button to return to Favorite Fonts with the new Font added to the list.

Remove

To remove a font or fonts from the Favorite Fonts list, select the font to be deleted and press the Remove button, the font will be removed from the list.

AUTOMATIC SAVE

When activated, this option automatically saves the file currently open at predetermined time intervals. This protects against the loss of work due to accidental shutdown of the program. Selecting this option opens the Automatic Save dialog box.



Should the EZ-Engrave program be shut down without the use of the Exit command in the File menu, the work on the screen at the time of the last Automatic Save can automatically be loaded onto the screen when re-starting EZ-Engrave.

Automatic Save Enabled

Select this option to have the work saved automatically.

Automatic Load Enabled

Select this option to automatically load any file which was on screen when the program unexpectedly stopped without the use of the Exit command. This feature is only available if the Automatic Save function is enabled.

Time Between Saves

This option determines the time interval between Save operations by the Automatic Save feature. If this time interval is set too long, a significant amount of work will be lost, should the system shut down accidentally. If this interval is set too short, the computer will interrupt work too frequently to be of help.

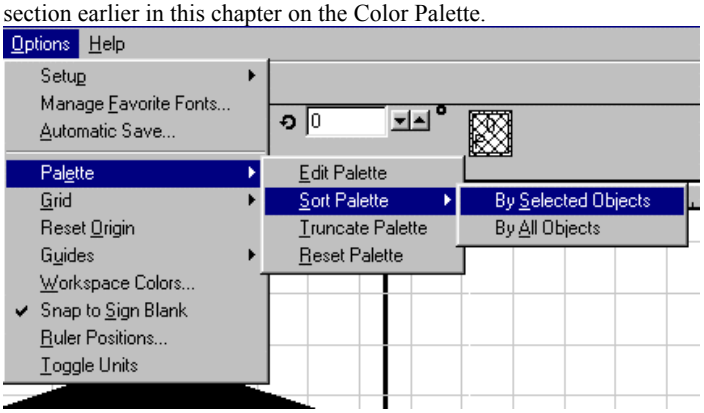
Create Back Files When Saving

This option causes EZ-Engrave to create a bak back-up file when any open file is saved using the Save or Save As commands. The bak file will have the same preface name as the saved file and will be stored in the same directory.

> ***Note:*** Back up files are a good safety measure however they can use up a tremendous amount of hard disk space if they are not removed from the system on a regular basis.

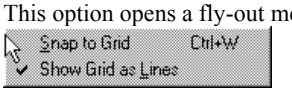
PALETTE

This option provides the means to manage the palettes in EZ-Engrave, the one currently active and those saved. For more information on the options available from the Palette fly-out menu see the section earlier in this chapter on the Color Palette.



GRID

This option opens a fly-out menu where the settings for the grid are specified.



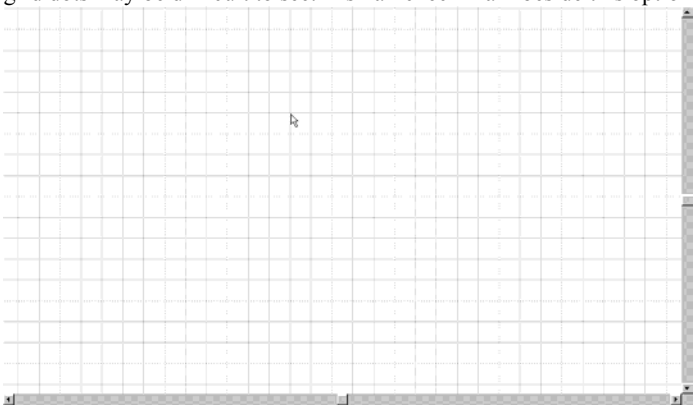
Snap To Grid

The Snap To Grid effects size and move commands. Specifically, move and size functions will be constrained to the width and height of the grid cells. For example, if the grid size is one inch by one inch, objects can be moved in any direction in one inch increments only. The sizing function is similarly effected. A small check mark beside the Snap to Grid option indicates that it is selected.

Show Grid As Lines

By default, the grid is displayed as black dots which appear at the intersection of the vertical and horizontal grid lines. To have the grid lines themselves visible on screen, check the Show Grid As Lines option. This option is particularly useful when using a high resolution screen, upon which the

grid dots may be difficult to see. A small check mark beside this option indicates that it is selected.



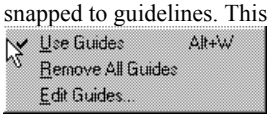
RESET ORIGIN

The Reset Origin command returns the origin of the grid to the default position at the lower left of the sign blank. This function is useful if the origin has been moved during the edit process with the Alignment Grid.

GUIDES

A guide is a vertical or horizontal reference line that can be positioned on the view screen at any location. As many as twenty guidelines in each direction can be displayed on the screen.

Objects on screen, nodes, and control nubs (when moving, distorting or transforming) can all be snapped to guidelines. This snap feature works in exactly the same manner as the snap to grid.



Use Guides

To use guidelines, check this option from the Guides fly-out menu in the Options menu.

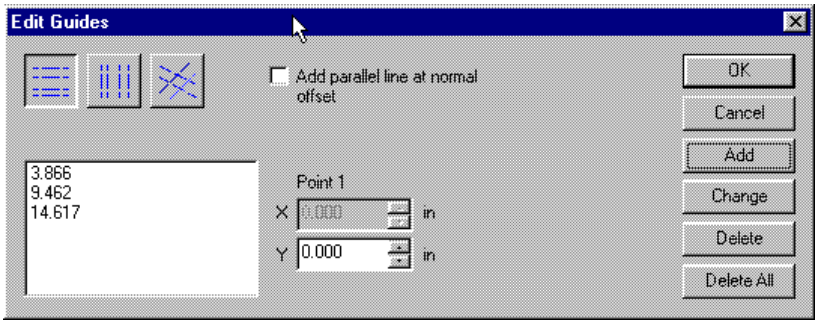
Remove All Guides

This option deletes all guidelines. It may be used at any time, whether or not the guidelines are visible on screen.

Edit Guides

Selecting the Edit Guides option opens the Edit Guides dialog box, right mouse clicking on any empty space in the view screen produces the same results, however the appropriate X and/or Y coordinates will be inserted if the Edit Guides dialog box is accessed directly from the view screen with a right

mouse click.



Orientation

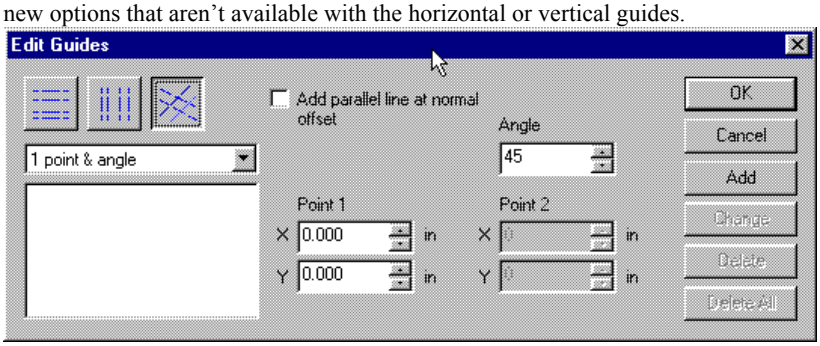
There are three orientation types of Guides to use with EZ-Engrave: Horizontal, Vertical, and Diagonal. If the Edit Guides dialog box was accessed through the Options menu the X and Y coordinates will be listed as 0. If the dialog box is accessed via the right click on screen the X and Y coordinates where the cursor was placed are listed.

Add Parallel line at normal offset

When activated this option will insert a guide at regular intervals parallel to the selected orientation.

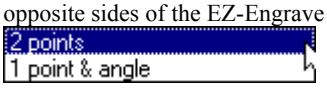
Diagonal Guides

When the diagonal orientation is selected for the current guide, the dialog box provides a number of new options that aren't available with the horizontal or vertical guides.



Guide Anchoring

The Guide Anchoring determines how the guide is Anchored to the Sign Blank. The Guide can be set to anchor to one point with a specified angle, or it can be set by two distinct X and Y coordinates, at opposite sides of the EZ-Engrave view screen.



X and Y Point 2 Coordinates

When the diagonal guide is set to anchor to two points, a second set of X /Y coordinates is available.

Angle

When the diagonal guide is set to an anchor of one point and an angle there is one set of X and Y coordinates as well as an Angle entry box.

Guides List Box

All Guides of the selected orientation are listed in the Guides list box. They can be changed, or deleted, and new guides can be added.

Add

To Add a Guide select a similar one from the list, edit the X and/or Y coordinates, or if applicable the Angle and press Add to create a new Guide using the current settings.

Change

To Edit a Guide select it from the list, edit the X and/or Y coordinates or if applicable the Angle and press Change to apply the changes.

Delete

Delete the selected Guide from the list by pressing the Delete button.

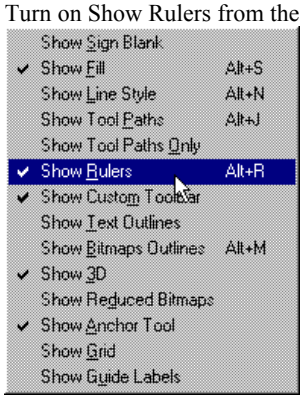
Delete All

The Delete All option deletes all guides of the selected orientation.

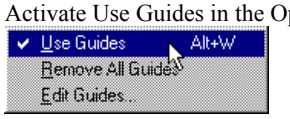
Creating Guidelines

Guidelines can also be created using the following steps:

- Turn on Show Rulers from the View menu;

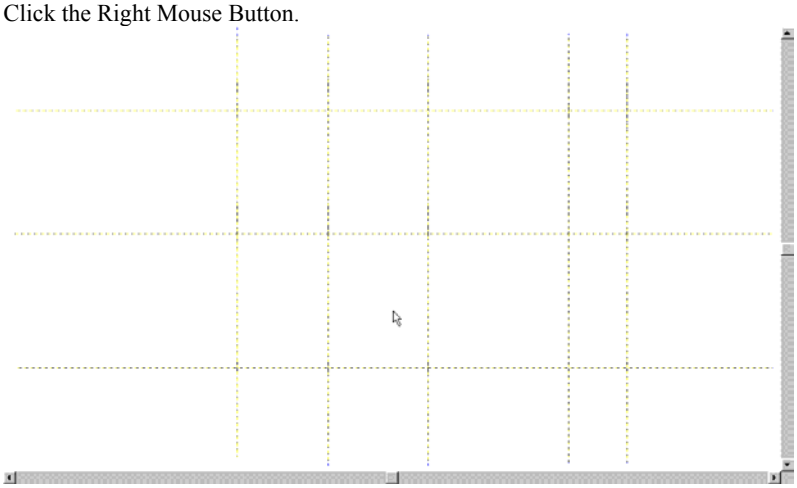


- Activate Use Guides in the Options menu;



- Move the cursor onto one of the on screen Rulers;

- Click the Right Mouse Button.



If the cursor was clicked in the vertical ruler along the left edge of the view-screen, a horizontal guideline appears on the screen as a dotted line. If the cursor was clicked in the horizontal ruler along the top edge of the view-screen, a vertical guideline will appear on the screen.

Constraining a New Guideline With The Rulers

If the [Control] key is pressed while creating a guideline, the new guideline will be forced to appear on the nearest ruler increment.

Deleting a Guideline

To delete a guideline, simply position the cursor over top of the guideline to be removed and click on it with the right mouse button while holding down the [Shift] key.

Placing Guidelines on a Selected Object

Guidelines can be created based on the placement of a given object on screen. To accomplish this, position the cursor over top of one of the nubs that surround a selected. Click on the nub with the right mouse button while holding down the [Shift] key. Clicking on a corner nub produces two guidelines which intersect at the nub. Clicking on a side, top, or bottom nub will result in a single guideline being created, a vertical guideline for side nubs, and a horizontal guideline for top and bottom nubs.

Placing Guidelines on a Selected Node

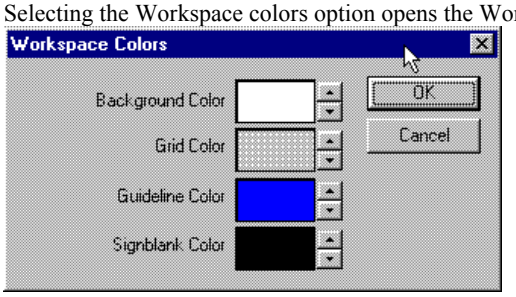
A pair of intersecting guidelines can be placed on top of any node when in the node edit state. To create a pair of intersecting guidelines over a given node, click the right mouse button over the desired node while holding down the [Shift] key. A pair of guidelines will appear intersecting at the selected node.

Enabling and Disabling Guidelines

The Use Guides command from the Options actually toggles the use of guidelines, as opposed to adding or removing them. For example, set a series of guidelines, de-selecting the Use Guides option removes the guides from the screen, but they will not be deleted. When the Use Guidelines is toggled on again, they will re-appear where they were created.

WORKSPACE COLORS

Selecting the Workspace colors option opens the Workspace Colors dialog box.



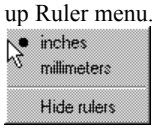
From within this dialog box the Background Color, Grid Color, Guideline Color, and Signblank Color can be set. To change a Color setting use the arrow buttons to scroll through the available palette of colors.

SNAP TO SIGN BLANK

Selecting this option causes objects to snap to the edges of the sign blank if placed within six pixels of it. Selected objects will snap to the sign blank at their outer edges, and at their vertical and horizontal centers. A small check mark beside this option indicates that it is selected.

TOGGLE UNITS

The Toggle Units option, does just that, it toggles the unit of measurement from inches to millimeters and then when selected again toggles the unit of measurement back to inches. This can also be achieved through the General Preferences dialog box, or by left clicking on the ruler to open the pop-up Ruler menu.



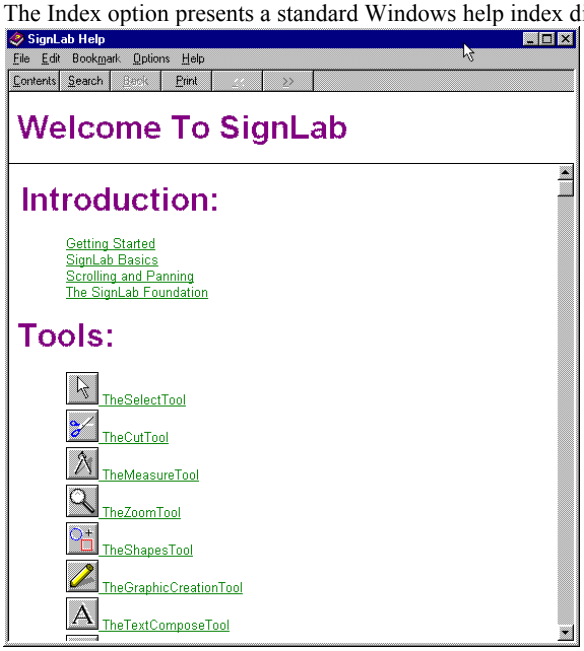
HELP MENU

HELP

The Help menu contains options relating to help in operating the EZ-Engrave program. On-Screen Help provides an explanation of features, menu items and tools contained in EZ-Engrave.

INDEX

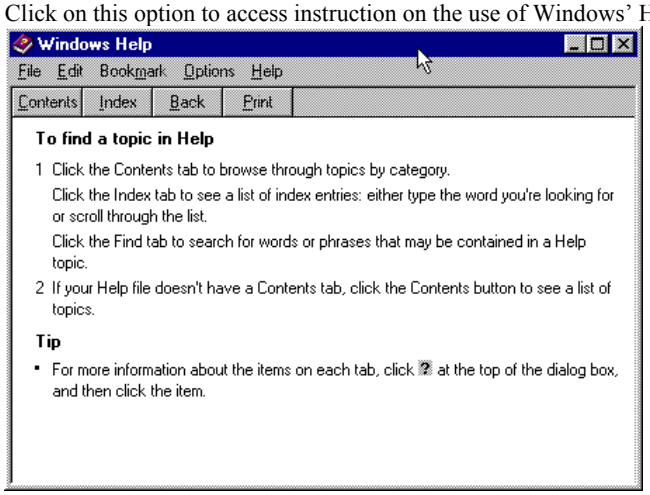
The Index option presents a standard Windows help index dialog box.



Click on the item of interest in the index listing and an explanation of that feature will be displayed on screen.

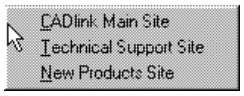
USING HELP

Click on this option to access instruction on the use of Windows' Help facility.



GO TO IDEAL STENCIL WEB SITE

The Go To Ideal Stencil Web Site options opens a fly-out menu with direct access to specific areas within the Ideal Stencil Web site, provided the system is set up with Internet access.



Selecting one of the direct link options opens the WEB browser set as default for the system. These links provide direct access to the main Ideal Stencil WEB site, the Technical Support site, and the New Products site.

Access the Web site for up-to-date information as well as tips and trick on how to best use the software. There are also updated release available to qualified users for quick and easy download.

E-MAIL TECHNICAL SUPPORT

Use this option to activate the default e-mail software on the system, provided the system is set up with an Internet connection. This option gives direct access to e-mail our Technical Support group regarding issues that may arise.

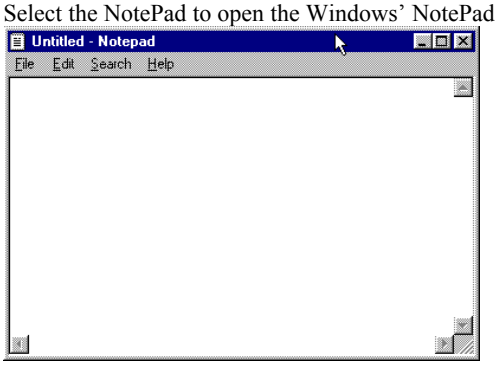
ABOUT EZ-ENGRAVE

Select the About EZ-Engrave option to open the About EZ-Engrave dialog box.

This box provides information regarding the version of EZ-Engrave running, the amount of free memory and disk space available, as well as the production date of the software. Click on the OK button to close the dialog box and return to the main EZ-Engrave view screen.

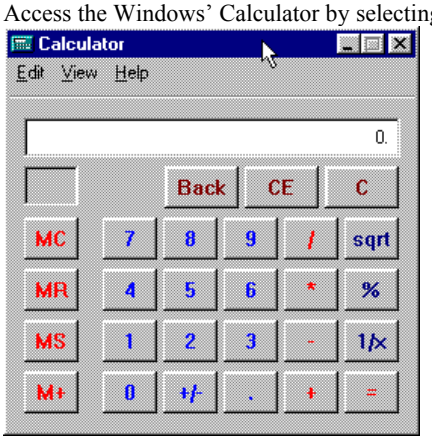
NOTEPAD

Select the NotePad to open the Windows' NotePad application. A new untitled document will open.



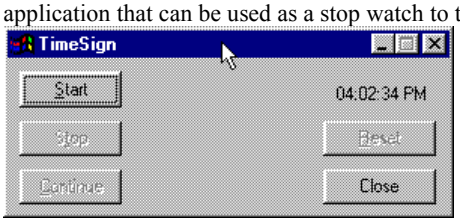
CALCULATOR

Access the Windows' Calculator by selecting Calculator from the Help menu.



TimeSign

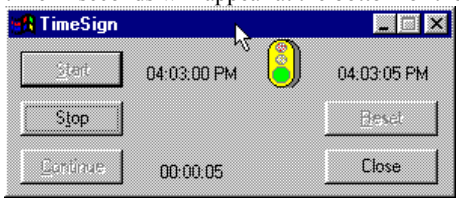
Access to EZ-Engrave's TimeSign is available through the Help menu. TimeSign is a clock/timer application that can be used as a stop watch to track time.



Start

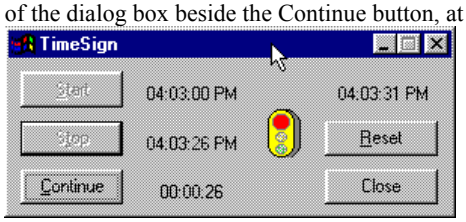
Press the Start button to activate the stop watch. Once activated the Start time will appear beside the Start button with a traffic light icon, the light appears green while the timer is running. The elapsed

time in seconds will appear at the bottom of the dialog box, beside the Continue button.



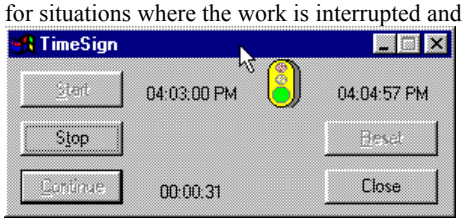
Stop

Press the Stop button to stop the timer. The Stop time appears beside the Stop button with the traffic light icon, the light appears red while the timer is stopped. The elapsed time is displayed at the bottom of the dialog box beside the Continue button, at this point TimeSign can Continue or be Reset.



Continue

Press Continue to recommence timing without resetting the elapsed time to a zero value. This is ideal for situations where the work is interrupted and recommenced, and the total work time is required.

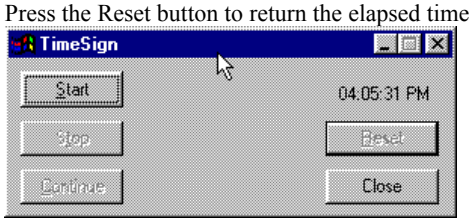


Clock

The current time is displayed in the top left segment of the dialog box. TimeSign accessing the Windows' clock setting for this information.

Reset

Press the Reset button to return the elapsed time to a zero value.



Close

Press the Close button to exit the TimeSign application.