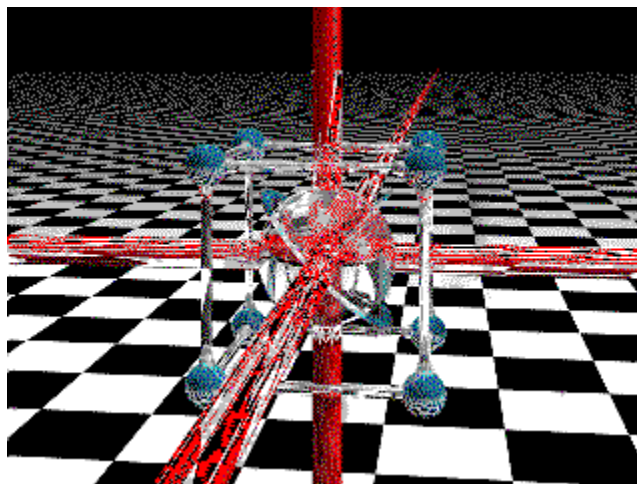


GIF Construction Set for Windows

GIF Construction Set for Windows 95

by Alchemy Mindworks Inc.



THE TOOL FOR CREATING GIF FILES

GIF Construction Set for Windows is shareware. If you like it, please register it. The registration fee for this application is \$20.00 (US) plus \$5.00 (US) shipping. Registering this shareware will ennoble your spirit, grant you excellent karma and provide you with technical support should you require it. We'll also send you the current version of this software on disk and evaluation copies of some of our other applications. No animals were harmed in the creation of this software. Recycle where required by law. Use no hooks.

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Also, please note that should you fail to support this program and continue to use it, a leather-winged demon of the night will tear itself, shrieking blood and fury, from the endless caverns of the nether world, hurl itself into the darkness with a thirst for blood on its slaving fangs and search the very threads of time for the throbbing of your heartbeat. Just thought you'd want to know that.

If you like *GIF Construction Set for Windows*, be sure to check out *Graphic Workshop*, *GrafCat for Windows*, *GraphSaver*, *QuickShow Light* and the other *Alchemy Mindworks* shareware applications. See the end of this document for more information.

Check out our web page at <http://www.mindworkshop.com> for the current shareware versions of all our software.

Register this software on CompuServe at GO SWREG. The registration code is 10595. Note that registered users of this software will receive both the sixteen- and 32-bit versions.

Avoid Having Your Heart Ripped Out

In addition to sending our leather-winged demon of the night down to your digs to snack out on important parts of you should you fail to register this software, we are also prepared to do so if you contact us for technical support and ask questions which are answered in this document. We spent a lot of time writing this thing, and pretty well everything you should need to know about using *GIF Construction Set for Windows* is in here. Please consult it before you get in touch with us.

In addition, you might want to consult our Frequently Asked Questions document for *GIF Construction Set*. The current version of this file is included with the *GIF Construction Set* software – you can always find the most up to date one at our web page.

One of the things that really enrages our leather-winged demon of the night is people asking why their 256-colour GIF files won't display correctly through a sixteen-colour Windows display driver. See the section on the About dialog later in this document to pass on being turned into demon chow over this.

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Introduction

GIF Construction Set for Windows is a powerful collection of tools to work with multiple-block GIF files. It will allow you to assemble GIF files containing Image blocks, Plain Text blocks, Comment blocks and Control blocks. It includes facilities to manage palettes and merge multiple GIF files together. It will make the extensions of the GIF specification work for you. Among its other functions, *GIF Construction Set for Windows* can:

- Create looped GIF animations for Netscape.
- Create transparent GIF files.
- Create interlaced GIF files.
- Add, edit and delete comment blocks.
- Add non-destructive text to images as plain text blocks.
- Create multiple-image GIF files.
- Serve as a fully-compliant Windows GIF viewer application.
- Be a GIF viewer "helper" application for a World Wide Web browser or Mosaic client.

You can use *GIF Construction Set for Windows* to create and modify GIF files with as many blocks as you require.

GIF Construction Set for Windows requires a minimum of four megabytes of memory to run reliably, with eight megabytes preferable. Larger images may require more memory still.

Blocks in GIF Files

A GIF file usually consists of two blocks, to wit, a Header and an Image. However, the structure defined by the GIF 89a specification allows for GIF files which contain multiple images, and several additional optional block types. These types are:

- **Comment blocks**, which can include text describing the image in question, defining its creator or copyright status or anything else you want to say about it. Comment blocks are not displayed as part of a GIF file.

- **Plain text blocks**, which specify text to be overlaid on an image. The position and colour of the text can be defined. Unlike merely adding text to an image with a paint program, plain text blocks don't damage the underlying image.

- **Control blocks**, which define image transparency and allow for user input. The transparency field of a control block will let you specify that one colour in an image or a colour used by the text in a plain text block is to be regarded as transparent by a GIF viewer, allowing the underlying image to be visible wherever it occurs.

- **Application blocks**, which allow private application data to be included in a GIF file. Application blocks can't be created or edited with *GIF Construction Set for Windows*, although they will be preserved if you open a GIF file which contains them.

- **Loop blocks**, which define looping for multiple image GIF animations to be used with web pages. These are actually specialized application blocks.

- **Block name blocks** are also specialized application blocks, and are specific to GIF Construction Set. They hold the names of the image blocks in a GIF file.

Every GIF file begins with a Header block, which defines the size of the screen the GIF files should be displayed on if possible, and an optional global palette. It's important to understand how palettes work in GIF files. A palette defines the colours to be used by any images and plain text blocks in a GIF file. A global palette, defined by the header block of a GIF file, pertains to all the images in the file. Alternately, individual image blocks are permitted to have palettes of their own, called local palettes.

Because most display devices are colour mapped, and can only work with one palette at a time, attempting to display multiple GIF images, each with its own local palette, will usually leave you with something that looks like bad abstract art or the aftermath of an all

you can eat spaghetti dinner. As such, multiple image GIF files should have all their images referenced to the global palette of the file unless you have a compelling reason to do otherwise. *GIF Construction Set for Windows* includes facilities to remap and dither images to a global palette.

GIF Construction Set for Windows will let you open an existing GIF file or create a new one and add blocks, modify the various data fields of blocks and delete blocks. In the case of image blocks, it offers a number of image processing options to make assembling multiple image GIF files from a number of discrete images as practical as possible.

Running *GIF Construction Set for Windows*

When you initially boot up *GIF Construction Set for Windows*, you'll see a list of all the GIF files in the \GIFCON directory of your hard drive. You can open a GIF file either by double clicking on one of the names in the list, or by selecting Open from the File menu. You can navigate to a different directory or drive either by double clicking on the drive and directory entries in the list of the *GIF Construction Set for Windows* application window or through the File Open dialog.

If you click once on the name of a GIF file which has a Graphic Workshop thumbnail associated with it, you'll see a small version of the GIF file's first image in the application window of *GIF Construction Set for Windows*. Thumbnails will be discussed in greater detail later in this document.

When you open a GIF file, the main application window of *GIF Construction Set for Windows* will list each of the blocks in the GIF file, beginning with the header. Clicking once on an image block will display a thumbnail for it. Double clicking on any block that *GIF Construction Set for Windows* recognizes will call up a dialog to edit it. You can also edit a block by clicking on it once to select it and then clicking on the Edit button in the *GIF Construction Set for Windows* button bar.

GIF Construction Set for Windows does not allow application blocks or blocks of unknown types to be edited.

Editing the Header Block

You can modify the following fields of the header block of a GIF file:

- **Screen width and screen depth:** These are the dimensions in pixels of the screen the GIF file would like to be displayed on. They can be any value greater than zero. Note that the screen dimensions do not affect the dimensions of images displayed from a GIF file, but they may affect where on your screen the images are placed in a fully compliant GIF viewer. For GIF files destined for web pages, these fields should define a rectangle which just encloses all the other elements in your file. Left to its own devices, *GIF Construction Set* will set these fields correctly each time you save a file.

- **Background:** The background is the colour of the area around the images to be displayed if the images in question don't fill your screen. The background is actually a

number drawn from the current global colour palette... if the palette is changed, the actual colour displayed may change too. To change the background colour, click on the colour button in the Edit Header dialog and select a new colour. The number in the Background colour button is the actual palette index being used.

- **Global palette:** The global palette flag tells GIF viewers whether a GIF file includes a global palette. If you change this flag, *GIF Construction Set for Windows* will look at the GIF file you're working on to see if there are images which expect a global palette and prompt you accordingly. In most applications of GIF files, it's desirable to have a global palette.

You can save palettes from *GIF Construction Set for Windows* to disk files and load them in as new global or local palettes. The size of the current palette is shown to the right of the Load button.

The Sorted flag of Edit Header box allows you to set the state of the sorted palette flag in the header of GIF files. This flag has no affect on how *GIF Construction Set for Windows* displays images – it may be of importance to other applications which read your GIF files.

When you create a new GIF file, a header block will be created automatically. The colour depth is set by the Default Colour Depth item in the *GIF Construction Set Setup* dialog. This value can subsequently be modified by loading a palette with a different colour depth.

Editing Image Blocks

The Edit Image dialog includes the following fields:

- **Left and top:** These fields determine where the image in question will be displayed on your screen relative to the upper left corner. The values are in pixels.

- **Interlaced:** This flag determines whether the image in question will be stored interlaced or normally. If you have enabled the Display Interlaced item in the Setup dialog this will affect how *GIF Construction Set for Windows* displays images. It will also change how images appear in applications which display them one line at a time. Interlaced images are commonly used in World Wide Web pages.

- **Local palette:** You can enable a local palette for any image block in a GIF file. By default, the palette for the image in question will be used. You can also load and save palettes, as in the Edit Header field. Be careful doing this... you might wind us with an image having very weird colours. The Load and Save buttons will only be active if you have switched on the local palette option. The number of colours in the current image palette will be displayed below the Local Palette switch.

The View button of the Edit Header dialog will display the image in question. Specifically, it will display it against a solid colour background – grey by default – with a

set of purple guides indicating where the screen area defined by the screen width and screen depth fields of the current header block would fall. This assumes that your screen area and image are smaller than your screen. The background colour can be defined through the *GIF Construction Set for Windows* Setup dialog, discussed elsewhere in this document.

Note that the View buttons in the edit dialogs will not display an entire complex GIF file. They'll only display the current block. If your image does not display correctly, please read the section of this document that deals with the About dialog for a discussion of Windows screen drivers. Hit Esc or click the right button of your mouse to exit the View mode.

Editing Comment Blocks

A comment block consists entirely of text. The Edit Comment Block dialog is a text editing window in which you can add, modify and delete the text of a comment block. Under *GIF Construction Set for Windows*, a comment block can include up to 32,767 characters.

The Format button of the Edit Comment Block dialog will toggle between displaying text in the conventional chunky Windows font and displaying it in a monospaced font. The former is better for editing a lot of text, while the latter is useful if you'd like to create formatted comment blocks.

Editing Plain Text Blocks

Plain text blocks consist of text and some information about how to display it. The text can be edited the same way comment block text is handled. The following fields define how plain text blocks will be displayed:

- **Text left and text top:** These fields define where the text will appear on your screen, relative to the upper left corner of the viewing area. These values are defined in pixels.
- **Grid wide and grid deep:** These fields define a rectangle in which your text will be drawn. A grid ten wide and twelve deep would allow for twelve lines of up to ten characters each. Text which doesn't fit in the grid defined by a plain text block is not displayed.
- **Cell wide and cell deep:** These fields define the dimensions of the characters used to display text. In theory, a GIF viewer should look at these fields and create a suitable monospaced font to display the text in question. In most cases this is not so – *GIF Construction Set for Windows* included. Most GIF viewers will use a font which is eight pixels wide and anywhere from eight to 32 pixels deep.
- **Foreground and background:** These are the colours used to display the text in question. Note that if a plain text block is preceded by a control block which defines a transparent colour, one of these colours can become transparent. You can select these colours either by clicking on their colour buttons or by using the eyedropper tool to pick

colours from the previous image block if one is present. The eyedropper tool will not be active if there is not at least one image block before the current plain text block.

- **Block title:** This item will be enabled if the Write Directory Block item in the Setup dialog is checked. If you enter some text in this field, it will appear in the IMAGE line corresponding to the block in question in the main window of *GIF Construction Set*. By default this field will contain the name of the file from which the image was drawn if you imported the image with GIF Construction Set.

The View button will display the image preceding the plain text block being edited with the text in question superimposed over it. Note that the View buttons in the edit dialogs will not display an entire complex GIF file. They'll only display the current block. If your image does not display correctly, please read the section of this document that deals with the About dialog for a discussion of Windows screen drivers. Hit Esc or click the right button of your mouse to exit the View mode.

Editing Control Blocks

A control block includes the following fields:

- **Transparent colour:** If this switch is turned on, one of the global palette colours in subsequent image or plain text blocks will be regarded as being transparent by *GIF Construction Set for Windows* when you view a complete GIF file. This means that rather than displaying areas of this colour, it will allow whatever is underneath the displayed image or text to show through. You can select this colour either by clicking on the colour button to the right of the switch or by using the eyedropper tool to pick a colour from the next image block if one is present. The eyedropper tool will not be active if there is not at least one image block after the current plain text block.

- **Wait for user input:** If this switch is turned on, a GIF viewer displaying your GIF file will display the next image or plain text block and pause for user input. User input is usually a key press or a mouse click.

- **Delay:** This is the number of 100ths of a second a GIF viewer will pause after displaying the next image or plain text block. If Wait for User Input is also enabled, the delay can be interrupted by a key press.

- **Remove by:** This tells a GIF viewer what do with an image after it has been displayed. Be careful of the Previous Image option... some GIF viewers have problems with this if you ask a really big image to be removed this way.

The View button will display the image preceding the control block being edited with any transparent effects that you've defined. Note that the View buttons in the edit dialogs will not display an entire complex GIF file. They'll only display the current block. If your image does not display correctly, please read the section of this document that deals with the About dialog for a discussion of Windows screen drivers. Hit Esc or click the right button of your mouse to exit the View mode.

Editing Loop Blocks

A loop block includes one field, to define the number of times the images in the GIF file in question will repeat. Note that a Loop block will always appear as the second block in a GIF file, no matter where you insert it. Only one Loop block can appear in a GIF file.

Inserting Blocks

You can add blocks to a GIF file with the Insert button of the *GIF Construction Set for Windows* button bar. A dialog will appear to allow you to select the type of block you wish to insert. Inserted blocks are always inserted immediately after the currently selected block.

If you attempt to insert an image block into an existing GIF file, a dialog will appear prompting you for the file to insert. Images can be drawn from files in the following formats:

PNG	These are compressed graphics created to replace GIF
MacPaint	Monochrome image files from Macintosh systems
GEM/IMG	Primarily used by Ventura Publisher
PC Paintbrush PCX	The native file format of Z-Soft's PC Paintbrush software
CompuServe GIF	Among the most widely used PC image file formats
Deluxe Paint/Amiga IFF/LBM	Only supports pure IFF files and Deluxe Paint LBM files
PC Paint Pictor PIC	Supports them all, including high colour PIC
Truevision Targa	Supports all Targa files
Windows /OS2 BMP/DIB	Supports all BMP files, including those from OS/2
Windows 3 RLE	Supports most Windows RLE files
Microsoft Paint MSP	This is the old monochrome paint format from Windows 2
Halo CUT	This is the very obscure Halo cut format
PFS:First Publisher ART	Only supports uncompressed ART files
JPEG JPG	All JPEG files will be displayed in 256 colours
Sun Raster RAS	These are files from Sun unix workstations
HRZ SSTV	These are high colour slow scan television files
WordPerfect Graphics WPG	Only supports bitmapped WPG files. If your WPG files do not display they are vector files, and are not supported by <i>GIF Construction Set for Windows</i> .

You can insert multiple images into a GIF file at once – each one will appear as a separate Image block. Select multiple images in the Open dialog by holding down the Ctrl key and clicking on each image you want to insert. Hold down the Shift key and click to select a range of images.

Note that if you import an image from a GIF file using the Insert function, the first image in the file will be read, even if the file actually contains multiple images. Use the Merge command of *GIF Construction Set for Windows*, discussed later in this document, for an alternate approach to importing images from GIF files.

If you attempt to insert an image which has a different palette from the current global palette of your GIF file, a dialog will appear asking how you'd like to handle the new image's palette. These are the available options:

- **Use a local palette for this image.** If you do this, no colour shifts or dithering effects will be introduced into the image, but very nasty things may happen if you attempt to display this image concurrently with other images in the file. You can't use plain text blocks with local palette images. Local palettes are usually not a very good idea for conventional display applications. If you attempt to import a true colour image with this option, it will be dithered to a 256-colour image internally.

- **Use a local grey palette for this image.** The image will be converted to grey scale and installed with a local palette. All of the foregoing considerations for local palettes still apply.

- **Remap this image to the global palette.** This is a good choice for mechanical images... drawings and such... and a really bad choice for photographs. Each colour in the source image will be replaced by the closest match from the global palette. This will usually make photographs look posterized.

- **Dither this image to the global palette.** This is a good choice for photographs. It will give you the best colour match... and usually the most attractive results... with a slight loss in detail resolution.

- **Use this image as the global palette.** This option will only be available if no other image blocks currently exist in your GIF file, such as when you create a new file. The global palette for the header of the file will be drawn from your imported image. If you attempt to import a true colour image with this option, it will be dithered to a 256-colour image internally.

- **Use it as is.** No checking or correction will be performed, and the colours in your imported image will fall where they may. This option is useful if you know that certain colours in your imported image correspond to colours in the current global palette, such as for images created to be overlays with transparent colours. Plan on radical colour shifts and Andy Warhol's worst nightmare if this is not the case.

If you insert other types of blocks... specifically control, comment or plain text blocks... default blocks will be created which you can subsequently edit, as has been discussed.

The Use This Selection for Subsequent Images option will save time if you're importing multiple images into a GIF file in one pass. It will apply the current selection in the dialog to the remainder of the images to be imported. Note that this item will not be enabled if you have selected Use This Image as the Global Palette, as a GIF file can only have one global palette.

Merging Blocks

The Merge feature in the *GIF Construction Set for Windows* File menu will allow you to import all the blocks in a GIF file... except for the header block... into the current file. They will be inserted starting just after the currently selected block. Image blocks will be handled using the same logic discussed previously for inserting individual image blocks...

a dialog may appear prompting you to choose a strategy for handling palette conflicts.

You can use the Merge function to import selected images from a multiple-image GIF file. Merge the whole file and delete the blocks you don't need.

Extracting Blocks

The Extract feature in *GIF Construction Set for Windows* will allow you to select one or more blocks in an existing GIF file and have them written out to a new GIF file. GIF files created by Extract must contain at least one Image block – the Save button will not be active until at least one Image block is selected. The Header block will automatically be adjusted to define a rectangle that encloses the images in the extracted file. The other parameters of the new Header block will duplicate those of the source Header block.

Deleting Blocks

You can delete any block save for the header by selecting it and clicking on the Delete button. Note that once a block is deleted, it's gone for good.

Managing Blocks

The Manage function in the Block menu will let you globally change the Control blocks in your GIF files. It's useful for adding lots of Control blocks at one time, deleting lots of Control blocks without wearing your mouse down to a puddle of molten plastic and for changing the characteristics of lots of Control blocks.

Depending on the options you select, the Manage function's file selector will deal with Image or Control blocks. Specifically:

Insert Before Selected Images: This option will insert a new Control block before each of the selected Image blocks.

Insert Where Required: This option will insert a new Control block before each of the selected Image blocks which is not presently preceded by a Control block.

Set All Existing Controls: This option will change the parameters of each of the selected Control blocks. Note that this pertains to all control blocks, even if they precede Plain Text blocks, rather than Image blocks.

Delete Selected Controls: This option will remove all the selected Control blocks. No other blocks will be affected.

Image Block Position options: This section allows you to set the Left and Top fields of all the selected image blocks. If you enable the Absolute option, all the blocks will be set to the values specified in the two spin button fields. Otherwise, the left and top values will be incremented by the values in the spin button fields, beginning with the left and top values for the first selected block.

Note that if you click on the titles for the spin button fields when the Absolute switch is

not enabled, they'll change, allowing you to decrement the initial values as well. These fields cannot have values less than zero.

Note that you can only select Control and Image blocks in the file selector list for the Manage function. You can select multiple items in this dialog – hold down Ctrl and click on multiple items, hold down Shift and click on the beginning and then on the end of a range of items or hold down your mouse button and drag it over a range of items.

Viewing GIF Files

The View button in the main window of *GIF Construction Set for Windows* will display a GIF file using a fully compliant viewing function. The viewing area, as defined by the screen dimensions of the file header, will be centred in the main window of your screen if it's bigger than your screen. Each displayable block will appear in the order it's defined in the GIF file. You can terminate the display any time you like by clicking the right button of your mouse or hitting the Esc key.

The background of the view mode may appear dithered on systems with colour mapped screen drivers. This can be changed using the Setup dialog of *GIF Construction Set for Windows*, as discussed elsewhere in this document.

If the screen dimensions defined by a GIF file's header block are greater than the dimensions of your screen, scroll bars will appear to allow you to pan over the displayed image.

Creating New GIF Files

To create a blank GIF file, select New from the File menu. A blank GIF file always includes a header block. You can add blocks to a new GIF file with the Insert and Merge functions.

Opening and Saving GIF Files

Any GIF 87a or 89a file can be opened into *GIF Construction Set for Windows*. Files created with GIF 87a headers will be converted internally to GIF 89a files. As discussed previously, you can open a GIF file either by selecting the Open item from the File menu of *GIF Construction Set for Windows* or by double clicking on the name of a GIF file in the main list of the application window. It's possible that extremely complex GIF files... those with lots of blocks... may not open completely. See the section of this document dealing with the Setup dialog for information about getting around this.

The Save and Save As functions of the File menu will save your current GIF file to disk. All GIF files written by *GIF Construction Set for Windows* will have GIF 89a headers.

If you enable the Write Thumbnail option of the Save As dialog, each file written by *GIF Construction Set for Windows* will be accompanied by a thumbnail. Thumbnails are stored in files with the extension .THN. As such, the thumbnail for PICTURE.GIF would be called PICTURE.THN. The thumbnails created by *GIF Construction Set for Windows* are compatible with those used by *Graphic Workshop for Windows* and other Alchemy

Mindworks applications which support thumbnails.

Thumbnails will appear in the application window of *GIF Construction Set for Windows* if you select a GIF file prior to opening it. A thumbnail always represents the first image in a multiple-image GIF file.

Unregistered copies of *GIF Construction Set for Windows* will add a comment block to any GIF file you save. This comment block will not appear once you register *GIF Construction Set for Windows*.

Exporting GIF Files

The Export function will create a new, single-image GIF file which contains all the display elements of a multiple image GIF file. It will export what you would see on your screen if you were to click on View. Note that it will ignore image blocks which would be removed to the background image.

The Courier New TrueType font that accompanies Windows must be installed for Export to render Plain Text blocks correctly.

Cutting, Copying and Pasting Blocks

You can cut or copy the current block of a GIF file to the Windows clipboard using the appropriate items of the Edit menu. A block copied to the Windows clipboard will have its block structure stored as hexadecimal data defined in OEM text. Plain text and comment blocks will have their text stored as conventional Windows text. Image blocks will have their image information stored as conventional Windows device-independent bitmaps.

It's a really bad idea to mess with the OEM text objects copied from *GIF Construction Set for Windows* and then paste them back into GIF files.

You can copy a bitmap from another application onto the clipboard as a device-independent bitmap and paste it into a GIF file through *GIF Construction Set for Windows*. It will be given an image block on the way in, which you can subsequently edit if you like.

Closing GIF Files

If you select the Close item of the File menu of *GIF Construction Set for Windows*, the current GIF file will be closed and the list in the main application window will revert to showing you the names of all the GIF files in your current directory. Opening a new GIF file automatically closes the current one.

Converting Movies to GIF Files

GIF Construction Set for Windows will convert an AVI video clip file into an animated GIF file. There are two possible catches to using this feature – GIF files so created can get very large, and may take a while to create. The latter will be especially true if your source AVI file has a lot of frames, or frames with relatively large pixel dimensions. Ten-

megabyte AVI files aren't uncommon – ten megabyte GIF files are not well regarded as adjuncts to web pages.

To convert an AVI file to GIF, select Convert Movie to GIF from the File menu of *GIF Construction Set for Windows*. Select a source AVI file. A dialog will appear to let you choose a colour management strategy for your GIF file. Here are the choices and what they mean:

Dither to the Netscape 216-colour palette: This will preserve the photographic quality of a photorealistic movie if it's viewed on a machine running Netscape and a 256-colour driver. This is technically the safest choice for movies which will be displayed in web pages – it will introduce some dithering into your movies, but it will avoid radical colour shifts even on cheap computers from Sears.

Remap to the Netscape 216-colour palette: This is technically the best choice for line art movies, such as those created by digital animation software, if you want them to look right in web pages which might be displayed by 256-colour machines.

Dither to the 256-colour orthogonal palette: This will do a slightly better job of dithering movies, especially 24-bit movies, than the Netscape 216-colour palette option. At least, it will if your movies will be displayed on a machine with a 32,768-colour or better screen driver. Machines with 256-colour drivers will cause Netscape to introduce some colour shifts into movies with this palette.

Remap to the 256-colour orthogonal palette: This uses a slightly larger palette for line-art movies. It will give you slightly better results for movies shown on a machine with a 32,768-colour screen driver or better, and slightly worse results for 256-colour machines.

Use source image palette: This option makes no attempt to adjust the source palette of the movie being converted, and it doesn't dither anything. This will unquestionably produce the best-looking results for movies to be displayed by GIF Construction Set's View mode and by Netscape for machines with 32,768-colour screen drivers or better. Machines with 256-colour drivers will probably introduce some colour shifts into movies converted with this option. Life's a bitch this way. This option is also vastly quicker than the previous four, as it doesn't have to process each frame of the source image. You can't use this option with 24-bit source movies.

All of the foregoing notwithstanding, you should probably use the source image palette option unless you have a good reason for doing otherwise. The resolution of most movie files at the moment isn't all that impressive as it is, and introducing dithering into them will noticeably degrade them. Plan to experiment with this a bit.

Note: Converting movie files to GIF files can create a lot of blocks. Plan on two blocks per frame, plus at least a header and possibly a loop block. If you encounter memory or block access errors during conversion, increase the Maximum Blocks value in Setup and try it again. A good start for Maximum Blocks is 1024.

The Setup Dialog

The *GIF Construction Set for Windows* Setup dialog can be called up through the Setup item of the File menu. It includes the following fields.

- **Display Interlaced:** If this switch is enabled, image blocks with interlaced images will appear in interlaced order.

- **Draw Frame Guides:** If this switch is enabled, purple guides will appear to define the image area of a GIF file being viewed using the View buttons of the edit dialogs. Guides do not appear in the main View function.

- **Use Image Offsets:** If this item is not enabled, images will be displayed centred on your screen, rather than where the position fields of their image blocks say they're supposed to be. There are few good reasons for doing this.

- **Dither View Background:** This item is ignored on systems with screen drivers that can display more than 256 colours. If your current Windows screen driver can display 256 or fewer colours, setting this switch on will cause the background of the main View mode to be dithered to approximate the setting of the background field of the header block of the GIF file being displayed. Setting it off will cause the closest match from the current global palette to be used, allowing for Window's somewhat funky palette management strategy. See the section of this document which deals with the About dialog of *GIF Construction Set for Windows* for information about how to determine the number of colours your current Windows screen driver can display.

- **True Transparency:** If this item is enabled and you're using a Windows screen driver with better than 256 colours, you'll see transparent GIF files displayed correctly. If it's disabled – or if you have a sixteen- or 256-colour Windows screen driver installed in your system – GIF Construction Set will use Windows' GDI calls to handle transparency, which are less than wholly reliable. They are somewhat faster, however. If you find the length of time it takes GIF Construction Set to display transparent elements in GIF files excessive, try disabling this feature. This switch will be ignored if you have a sixteen- or 256-colour driver installed.

- **Write directory block:** If this item is enabled, GIF Construction Set will preserve the titles of the image blocks in your GIF file in a Block Title block written after all the other blocks in the file. This is helpful in keeping track of the images in an animation sequence, for example. This item should be disabled if you are creating GIF files for use on web pages.

- **Interlace Delay:** This is the number of milliseconds GIF Construction Set waits after it display one line of an interlaced image.

- **Dither contrast and dither brightness:** These values only affect monochrome dithering in the image block import function. If you attempt to import a colour image into

a monochrome GIF file, it may be dithered to two colours, depending on the palette option you select. These fields can be used to fine tune the dithering.

- **Maximum blocks:** When a GIF file is opened in *GIF Construction Set for Windows*, a fixed number of blocks will be allocated for it. If you exceed this number, no new blocks will be accepted. The default value, 255, will suffice for all but the most complex GIF files. You can increase this number if you run out of blocks or if *GIF Construction Set for Windows* refuses to open a very complex GIF file because it has more than 255 blocks. Note that changes to this field will not take effect until the next time you open or create a GIF file. If you run out of blocks you must save your current GIF file, change this field and open the file again.

Setting the Maximum Blocks field higher than it needs be will tie up excessive memory and probably slow down Windows and applications running under it.

- **Default Palette:** This item sets the initial palette size for the header of blank GIF files created with the New function of the File menu. There are a number of palette options:

- 256 colours: This palette has an even dispersal of colours between black and white.
- 256 colours with grey: This palette has an even dispersal of colours between black and white, but it includes 32 levels of grey.
- 216 colours/Netscape: This is the palette Netscape uses to remap colour images to for a 256-colour machine. This should be the default palette setting for creating photorealistic GIF files for use with Netscape.
- 32, 64 and 128 colours: These are evenly dispersed palettes. The 32-colour palette is a bit deficient in blues.
- 16 colours: This is the sixteen-colour Windows palette.
- 2 colours: This palette includes all the colours of the rainbow, provided they're black and white.

- **Adjust Header on Save:** If this item is enabled, GIF Construction Set will calculate the correct Screen Width and Screen Depth values for every GIF file it saves to disk. It's a really good idea to let it do this.

- **Check Animations:** If this item is enabled, GIF Construction Set will analyze GIF files which have more than one image as it saves them to disk and warn you if they contain elements that might cause problems under Netscape. You can ignore these warnings for non-animated GIF files. The EXAMPLE.GIF file that comes with GIF Construction Set will set off lots of warnings if you attempt to save it to disk – this is nothing to be concerned about, as it's not an animated GIF file.

- **Registration name:** You can turn a shareware copy of *GIF Construction Set for Windows* into a registered copy by entering your name in the registration field and clicking on Accept. A dialog will appear prompting you for the key word provided with the receipt for your registered copy of *GIF Construction Set*. Enter this word and click on OK.

Once you have successfully registered *GIF Construction Set for Windows*, you will no longer see the beg notice when the application terminates and the extra comment block added when you save a file will not appear. In addition, you'll have great karma and our leather-winged demon of the night won't regard you as a handy source of protein... something well worth considering.

The About Dialog and Windows Screen Drivers

The About button in the button bar of *GIF Construction Set for Windows* will display a beg notice for unregistered versions and a grey dialog with a unicorn for registered versions. The latter dialog will also tell you several useful things about your computer, such as the amount of memory Windows thinks is free and the number of colours your current Windows screen driver can display without dithering. The latter is very important... if you attempt to view a 256-colour GIF file on a system with a sixteen-colour driver installed, the resulting images will look posterized and ugly. This does not mean that *GIF Construction Set for Windows* is misbehaving... you must update your Windows screen driver to see 256-colour images correctly.

If you have an unregistered copy of *GIF Construction Set for Windows*, you can see the latter dialog by holding down the shift key and clicking on the Ok button in the beg notice dialog. You should do this if you are not seeing 256-colour images displayed correctly to check if the problem is with your screen driver.

As an aside, this works the other way, too... should you have reason to wish to see the unregistered beg notice dialog after you've registered, hold down the shift key and click on the Ok button.

About the Block Name Blocks

At times it's convenient to know which files the source images in a multiple image GIF file have come from, or to otherwise add titles to the Image blocks in a GIF file. The GIF specification doesn't allow for this to be done per se, but *GIF Construction Set* provides this facility through its Block Name blocks. If the Write Block Titles option in Setup is enabled, *GIF Construction Set* will add an extra Application block to GIF files it writes with title information for the Image blocks in the files in question.

By default, the title for an image will be the name of the file the image was read from when you imported the image into *GIF Construction Set* with the Insert function. You can change this by editing the title in the Edit Image dialog.

If you turn off the Write Block Title option, delete the Block Name block from a GIF file and then save the file, the Name Block will go away. This will delete the names and free up whatever space they occupy. It's probably a good idea to do this if your GIF files are bound for a web page.

The Block Name blocks associate text with blocks based on the block position in your GIF files. If you use another application to add or delete blocks to a GIF file, the block

information probably won't appear, or won't appear correctly.

Creating Banners

Banners are GIF files which contain text. This can be simple text – that is, a single image GIF file with words painted on it – or it can be an animated GIF file with text which scrolls from right to left.

Banner text can be painted with one of three effects:

- Simple: the text is painted in the foreground colour against the background colour.
- Shadow: The text is painted in the foreground colour against the background colour with a shadow in the shadow colour.
- Embossed: The text is painted as an embossed object in the foreground colour against the background colour.

Banners always use the current default palette, as set in the *GIF Construction Set Setup* dialog. Changing the default palette resets the colours in the Banner dialog. Also, note that only the Simple text option is available if the two-colour default palette is selected.

The Rolling option determines whether a banner will be a single static image or a sequence of images in which the text appears to move from right to left. Note that rolling banners with large fonts can create very large GIF files.

The Cells option determines the number of frames in a rolling GIF banner.

The Delay option sets the number of 100ths of a second between cells for a rolling banner.

The Loop option determines whether a rolling banner will repeat indefinitely or only display once.

The Offset control sets the offset in pixels between text and its drop shadow or the size of embossed text. Banners with a drop shadow of one or two pixels and a drop shadow colour of black or another very dark colour look pretty cool.

The Font button selects the font to be used in creating a banner.

The Transparent Background option sets the background colour to be transparent for the banner you're creating. This effect won't really be visible in the Test mode, as the default background of your GIF file will be the same as the background colour – banners with transparent background will appear as such in web pages.

The Foreground, Background and Shadow colour buttons set the colour values to be used in creating banners.

The Test button will let you preview your banner.

The Sample Text window will show you the font size and colours for your banner – drop shadow and emboss effects will not appear in this window.

Creating Transitions

Transitions are single image GIF files which have been augmented with special-effect transitions to make them appear and disappear in interesting ways. To create a transition, begin by selecting the source image with the Select button. Note that Transition doesn't modify your source image – it creates a new copy of it.

Transitions with large source images can create unworkably large final GIF files. Be careful how you use this feature if you're creating images for web pages.

Here are the current special effects supported by the Transitions feature:

Adam Seven Interlace: This will display your image one pixel at a time, in complex interlace order. This effect simulates the interlacing used by PNG files.

Horizontal Split: Your image will appear in two sections, with half rolling in from the left of your frame and half rolling in from the right.

Sandstorm: Your image will appear one pixel at a time, in random order.

Tile: Your image will appear in small squares, in random order.

Vertical Split: Your image will appear in two sections, with half rolling in from the bottom of your frame and half rolling in from the top.

Wipe in From Bottom: Your image will roll in from the bottom of your frame.

Wipe in From Left: Your image will roll in from the left side of your frame.

Wipe in From Right: Your image will roll in from the right side of your frame.

Wipe in From Top: Your image will roll in from the top of your frame.

The Select button will allow you to choose the source image for your transition. Source images can be in any of the file formats GIF Construction Set supports for import, as discussed elsewhere in this document.

The Cells option determines the number of frames in a transition.

The Delay option sets the number of 100ths of a second between cells for a transition.

The Loop option determines whether the transition will repeat indefinitely or only display once.

The Transparent Background option sets the background colour to be transparent for the transition you're creating. This effect won't really be visible in the Test mode, as the default background of your GIF file will be the same as the background colour – transitions with transparent background will appear as such in web pages.

The Remap to Default Palette option will cause your source image to be adjusted to use the currently selected default palette, as configured in the Setup dialog. This may result in noticeable dithering artifacts if your source image has already been dithered once, but it improves Netscape's colour reproduction for 256-colour systems.

The Background colour button sets the background to be used in creating transitions.

The Test button will let you preview your banner.

The Pause After Cycle option causes a transition to pause when it has completed its image, and before it begins to remove it. The pause also occurs after an image has been completely removed if the Loop option is enabled. The duration of the pause is set by the Pause spin button.

The Appear and Disappear options determine whether your transition will include an appearing sequence, a disappearing sequence or both. One or both options must be enabled.

Note that you can modify transitions once they've been created and opened in GIF Construction Set, just as you would other animated GIF files. For example, you can combine different transitions by merging a file with just the Appear phase enabled with one having just the Disappear phase enabled.

Creating Wide Palette GIF Files

Wide palette GIF files can only be created by the 32-bit version of GIF Construction Set.

The Wide Palette GIF File option will let you create GIF files which can display more than 256 colours. This probably sounds much more useful than it really is -- while it genuinely works, it embodies some serious catches. Before you use this feature, please take a moment to understand what it's up to so you don't wind up bashing your head against a wall in frustration.

A GIF image can only store a maximum of 256 colours. However, a GIF file can store any number of images. If each image has its own local palette, it's possible to have more than 256 different colours stored in the file.

This is what wide palette GIF files do. If the source image you wished to store in one had 510 distinct colours, GIF Construction Set would create a GIF file with two Image

blocks. The first Image block would have a local palette with the first 255 colours of your source image in it. The second Image block would have a local palette with the second 255 colours from your source image. Each palette would also have one colour that did not appear anywhere in your source image, to be used as a transparent colour.

In discussing wide palette GIF files, the Image blocks that your source image will be split into are called "panes".

The actual images would be constructed such that those pixels of your source image which appeared in their palettes would appear in the images in question, and the transparent colour would appear everywhere else.

When such a GIF file is displayed, the first Image block will take care of the first 255 colours, and the second Image block will take care of the second 255 colours. Because the "unused" pixels are transparent, the two frames would essentially be merged when the display was completely updated, with the result that 510 distinct colours would be displayed.

In practical terms, a 24-bit source image must be "quantized" to derive a suitable list of colours, that is, a large palette must be derived from it based on the dispersal of source colours. The Wide Palette GIF function of GIF Construction Set lets you select how large this palette can get.

Wide palette GIF files allow you to enjoy lossless images having lots of colours in a format which is compatible with existing web browsers. However, they embody some important catches, as follows:

- Wide palette GIF files tend to get large, as they require that a single 24-bit image be split into multiple 256-colour images, each of which must be stored separately.
- While Netscape, Explorer 3.0 and GIF Construction Set will display wide palette GIF files correctly, almost nothing else will. This includes most GIF viewers and paint packages.
- If a wide palette GIF file is displayed on a system running with a 256-colour screen driver, it will look really awful.
- Wide palette GIF files cannot include transparency, as they use transparent colours for their own purposes. They could in theory be animated, if you wanted to push the envelope, but the results would be very, very slow and quite ugly.
- Netscape does occasionally refuse to display GIF files with local palettes if it's really starved for resources, and some of its betas have been known to crash under these conditions. Be warned.

Wide palette GIF files are created through the Wide Palette GIF option of the edit menu

of GIF Construction Set. Here's what its options do:

Maximum number of colours: This sets the maximum possible wide palette size. If your image turns out to have fewer distinct colours than this, the palette may get smaller. As each pane in a wide palette GIF file can hold a maximum of 255 colours -- plus one transparent colour -- this also defines the maximum number of panes.

Interlace: If this option is enabled, the pane images of your wide palette GIF file will be written interlaced. This looks really slick in GIF Construction Set, but it will typically have no effect in Netscape, which does not display interlaced images as interlaced when they occur in multiple image GIF files.

Add Initial Sketch Image: If this option is enabled, the panes of your wide palette GIF file will be preceded by a fairly coarse sixteen-colour version of the image, which will eventually be wholly overwritten by the following panes. It's something to look at in the mean time, however. Turn this feature off if you want to create slightly smaller GIF files. The sketch image ignores the Interlace option, and is always non-interlaced.

Select: Use this button to load a source image. Source images must be stored as 24-bit files -- that is, as true-colour BMP, JPG, TGA, PCX and PNG files, and other suitable formats. You cannot use a GIF file as the source for the Wide Palette GIF function.

Sorted Palette: If this option is enabled, the wide palette created by the Wide Palette GIF function will be sorted, such that the brightest colours appear first, and turn up in the first panes. If it's not enabled, the palette colours will appear randomly. This won't affect how your wide palette GIF images look when they're finally displayed, but it does affect what they look like as they're being built up on your screen. This is especially true if you enable the Interlaced switch.

Test: This feature will test a wide palette GIF image. Considering the time it takes to create one of these things, you might want to skip the Test function.

Click on OK to create a wide palette GIF file. This feature takes a fairly long time to run -- it can be aborted by clicking anywhere within the GIF Construction Set window. When it's complete, your wide palette GIF file will have been opened in the main list box of GIF Construction Set. Click on View to see what it looks like -- mind the earlier warning that it will look pretty ugly on a system with a 256-colour screen driver.

By default, the background colour of a wide palette GIF file will be white -- you can change this by editing its Header block. This doesn't matter to a web browser, which ignores the background colour values in GIF files.

Select the maximum colour size carefully. More colours will produce much better looking final images, but they'll also create much larger final GIF files.

Note: If you save a wide palette GIF file, open it into GIF Construction Set and then

save it again -- for example, to add a comment block to it after the fact -- you will probably see some animated GIF warnings. Ignore these -- they're valid warnings, but wide palette GIF files are designed to break some of the rules for well-behaved web page animations.

Creating Animated GIF Files

GIF Construction Set for Windows offers two approaches to creating animated GIF files. You can use the Animation Wizard feature of the File menu, or you can create animated GIF files by hand. The former is much easier and will not create animated GIF files which are wildly inappropriate for use with Netscape and other web browsers. The latter will avail you of much more control over the animated GIF files you create.

Keep in mind that animated GIF files created with Animation Wizard can subsequently be edited in the main window of *GIF Construction Set*.

Note that Animation Wizard will allow you to import images from most popular bitmapped file formats. You will enjoy much better results if you import your source images from a 24-bit format, such as BMP, PCX, PNG or JPG, rather than from GIF files. Note also that Animation Wizard only imports images -- it does not include transparency information from your source files.

Using Animation Wizard

The Animation Wizard feature of *GIF Construction Set for Windows* will walk you through creating an animated GIF file. It offers fewer options than you'd have if you were to create an animated GIF file from scratch, but it's dead easy to use. It will prompt you for information about the animation you want to create, assemble all the necessary blocks and finally open the file in GIF Construction Set's main window. You can edit it further, or just save it to disk.

To create a GIF file with Animation Wizard, simply select this feature from the File menu of *GIF Construction Set for Windows* and follow the prompts. You can fine tune your GIF file after it has been created by Animation Wizard. The most important questions are:

- Do you want to create an animated GIF file for use in World Wide Web Page?
If you answer Yes to this question, Animation Wizard will choose a palette for your GIF file which is optimally compatible with Netscape Navigator.
- Are the images for your GIF file photorealistic or drawn?
Photorealistic images are scanned graphics and computer generated art which has gradients. Anything that looks as if it might have started life as a photograph should be regarded as photorealistic. Drawn images are graphics with hard lines, such as text and line art. Draw images with sixteen colours are text and line art which are constrained to use the default Windows palette, that is, graphics with very few colours.

Especially if you're new to using animated GIF files in a web page, it's a really good idea

to start with Animation Wizard.

Creating Animated GIF Files by Hand

You can create animated GIF files by hand in *GIF Construction Set for Windows* – this approach is more time consuming, but it will give you more control over how your animated GIF files look and behave.

It's also noble as hell, of course – hard stuff always is.

Here's how to do it:

1. Check the Setup dialog to make sure you have an appropriate default palette. For animated GIF files to be used on the web, this should be either the sixteen-colour Windows palette or the 216-colour Netscape palette. Other palette options will work, but they may produce less attractive images in a web page viewed on a 256-colour system.
2. Select New from the File menu.
3. Click on Insert and select Image.
4. When the Open dialog appears, select the image files that will appear in your animation. You can select more than one file at a time by holding down the Ctrl key and clicking on each file in turn, or by selecting the first file to be part of your animation, holding down the Shift key and then selecting the last file. Click on OK when you're done.
5. When the Palette dialog appears, select Dither to Global Palette if your source images are photorealistic or Remap to Global Palette if they're drawn. Enable the Use This Selection for Subsequent Images item. Click on OK.
6. When all your images have been inserted, click on Insert and select Loop if you want your animation to loop continuously. Note that as of this writing, the Iterations counter of a Loop block is ignored by Netscape. All animated GIF files with Loop blocks will loop forever.
7. You must insert a Control block in front of each Image block in your GIF file. The easiest way to do this is to select Manage from the Block menu. Click on Select All and enable the Insert Before Selected Images item. Click on Apply. A dialog will appear to let you set the parameters of your new Control blocks.

You should set a Delay value – this varies with the intended speed of your animation. Netscape's animation drivers are a bit machine-dependent as I write this – absolute speed settings are largely impractical. Start with something around 100. You can change this later with the Manage function.

If you'll have transparent elements in your GIF file, you should set them now, as

discussed elsewhere in this document.

The Remove By option should be set to Nothing if your GIF files are all the same size, have no transparent elements and will overlay each other perfectly, or to Background otherwise.

Click on OK when you're done.

8. Your animated GIF file is complete. Click on View to see what it looks like, and on Save As to save it to disk. Note that Netscape's animation playback runs at anywhere from five to ten times faster than real time – as of this writing, it's usually necessary to make animated GIF files run artificially slowly under GIF Construction Set to get them to run at something like the right speed in Netscape. Also note that the Background value in the Header block of your GIF file defines the background colour for the View feature under GIF Construction Set – it's ignored by Netscape.

Secrets, Tricks and Common Applications

Here are a number of useful things you might want to know about using *GIF Construction Set for Windows*.

Animated GIF files: As of this writing, Netscape's command of multiple-image GIF files has a few catches. Here are some of the ones you might want to keep in mind:

- The iteration count in Loop blocks is ignored by Netscape 2.0, although it appears to work in the 3.0 Atlas beta. Your animations will loop forever under 2.0 no matter what value you put in this field.
- Animations are supported by versions of Netscape 2.0 or better and versions of Microsoft's Explorer 3.0 or better. No other browsers we know of supports them as of this writing.
- If any of the cells in your animation extend outside the rectangle defined by the Screen Width and Screen Depth field in the Header block of your GIF file, Netscape will more than likely crash. The Adjust header on Save feature of *GIF Construction Set* will prevent this from happening if you leave it enabled.
- Netscape 2.0 pauses momentarily at the end of an animation sequence before it loops. There's nothing you can do about this.
- Netscape does not implement Wait for User Input or Remove by Previous Image as of this writing.
- A web page with animated GIF file on it will never be "done" in Netscape – that is, the Stop button will always be active.

Creating transparent GIF files: A transparent GIF file is one in which an image block

displays with one transparent colour. Anywhere the transparent colour exists in the image, no pixels will be painted and whatever was visible before the image appeared will show through. To create a transparent GIF file, add a control block before the image block you wish to include transparent areas. Enable the Transparent Colour switch in the control block and set the transparent colour to correspond to the colour of the areas of the image you wish to appear transparent.

Here's the complete procedure, step by step:

1. Open a GIF file. You should have a Header block and an Image block visible in GIF Construction Set.
2. Click on the Header block once.
3. Click on Insert.
4. Click on Control. You should now have a Header, a Control and an Image block.
5. Double-click on the Control block to edit it.
6. Enable Transparent colour.
7. Click on the eyedropper tool and use it to select the colour in your image that you want to be transparent.
8. Click on OK and save the file.

Note. Read this. Very important. Definite demon bait if you don't. Transparent GIF files only display with their transparent elements under fully compliant GIF viewers. This includes *GIF Construction Set for Windows*, most World Wide Web Browsers and a limited number of other GIF viewing applications. Most applications that just display pictures will ignore transparency information in GIF files. This includes our own Graphic Workshop software, for example. If your transparent GIF files don't seem to be transparent in some applications, the problem is not with *GIF Construction Set for Windows* or your GIF files.

Creating Interlaced GIF files: This one's easy. Open your GIF file and edit its Image block. Enabled the Interlaced option and save the file.

Creating magic graphic logos: You can create a GIF file that has a main image and a smaller secondary logo which appears, sticks around for a moment and goes away. In addition to the main image block, you will need a control block followed by a smaller secondary image. The secondary image can have a transparent background... this looks very slick. Set the control block up with whatever transparent colour you require, a brief delay, the user input flag turned on and the Remove By field set to Previous Image.

Creating plain text with a drop shadow: This looks very slick. It involves two plain text blocks and two control blocks. Each of the plain text blocks should contain the same text. The second one should be slightly lower and to the right of the first one... two pixels in each direction is usually about right. The second and optionally the first plain text block should be set up so their background colours are transparent, as defined by their control blocks.

Automatically viewing an image when it's loaded: Hold down the shift key when you double click on a GIF file name in the main application window of *GIF Construction Set for Windows* and the image will be loaded and then immediately viewed.

Using *GIF Construction Set for Windows* as a GIF viewer for other applications: If you run GIFCON.EXE, the executable file for *GIF Construction Set for Windows*, with the path to a GIF file as its command line argument, it will automatically load the indicated file just as if you'd explicitly loaded it by clicking on it from the main application window. If you append /V to the file name, it will automatically load and view the file. If you append /V/Q to the file name, it will load the file, view it and then quit back to the calling application as soon as you hit Esc or click with the right button of your mouse. You can prevent it from quitting in this situation by holding down the shift key when you exit the view mode.

GIF Construction Set for Windows makes a powerful GIF viewer for World Wide Web browsers.

What Became of Bookware?

Users of earlier versions of *GIF Construction Set* will note that it used to be offered as bookware. The registration "fee" was to buy and read Steven William Rimmer's novel *The Order*. Beginning with version 1.0h, *GIF Construction Set* became conventional shareware.

There are several reasons for this, not the least of which is that what started out as an in-house gadget has become a fairly complex application with the advent of the widespread use of GIF files on the World Wide Web. Users of *GIF Construction Set* have asked for new features in the package – animation support, for example – which required time to implement. Bookware wasn't paying for the development required to keep *GIF Construction Set* up to date and up to everyone's requirements of it.

If you have registered an earlier bookware copy of *GIF Construction Set*, this shareware version will be registered as well. You need not pay an update fee to use the new features in the shareware release of this package. It's a really good idea to write down your registration name and key word, however, as the *GIF Construction Set* Setup box won't prompt you for a page reference from *The Order* any longer. The quickest way to find these is to open \WINDOWS\GIFCON.INI with a text editor.

Contacting Alchemy Mindworks Inc.

You can contact us by snail-mail by writing to us at:

Alchemy Mindworks Inc.
P.O. Box 500
Beeton, Ontario
LOG 1A0
Canada

We will attempt to answer questions from unregistered users who write to us to the extent that their answers are needed for you to fully determine whether this software will suit your requirements.

You can reach our technical support line by phone... see the section of this document which deals with technical support.

We can also be reached through the Alchemy Mindworks bulletin board. It's available twenty-four hours a day at 1-905-936-9503. As of this writing, the protocol was 300, 1200 or 2400 baud, or 9600 or 14,400 baud v.32bis, eight data bits, no parity and one stop bit.

The bulletin board always has the most recent versions of all our shareware on it, plus bug fixes, drivers and other relevant information. It only exists to support Alchemy Mindworks' shareware... it does not have a general file area.

If you encounter problems with a file, you're welcome to upload the errant file to our bulletin board. Actually, you can upload any picture files you like to the board... we enjoy getting pictures.

Our **CompuServe** address is 70451,2734. Our **Internet** e-mail address is alchemy@mail.north.net. We will at our discretion answer reasonable questions by e-mail. Please do not leave credit card information on the Internet.

You can find the current version of *GIF Construction Set for Windows* and our other applications on the **Internet** at our FTP site **[ftp.mindworkshop.com](ftp://ftp.mindworkshop.com/pub/alchemy)** in the directory **[/pub/alchemy](ftp://ftp.mindworkshop.com/pub/alchemy)**.

You can download current versions of our applications, keep up to date with version changes and find other interesting bits at our World Wide Web server **<http://www.mindworkshop.com>**

We ask that in contacting us you appreciate that we are a small company with limited resources. If you have not registered this software we will not tell you to go to hell, but please don't ask us for half an hour of free technical support. We have not built the price of technical support into the cost of *GIF Construction Set for Windows*, as few

users require it. We believe very strongly in not making everyone pay for something that only a small group needs. If our various governments felt the same way, our various economies wouldn't be in the midst of melting down.

Support this Software

If you like *GIF Construction Set for Windows* and find it useful, please register it. This will allow you to shut off the begin notice which appears when you exit *GIF Construction Set for Windows*. More to the point, though, it'll make you feel good. We've not infested *GIF Construction Set for Windows* with excessive beg notices, crippled it or had it verbally insult you after ten days. We trust you to register this software if you like it.

If you want to see additional features in *GIF Construction Set for Windows*, register it. If we had an Arcturian mega-dollar for everyone who has said they'd most certainly register one of our applications if we'd add just one more thing to it, we could buy ourselves a universe and retire.

Finally, as mentioned at beginning of this file, should you fail to register this software and continue to use it, a leather-winged demon of the night will tear itself, shrieking blood and fury, from the endless caverns of the nether world, hurl itself into the darkness with a thirst for blood on its slavering fangs and search the very threads of time for the throbbing of your heartbeat. Just thought you'd want to know that.

Technical Support

Technical support is available at 1-905-936-9501, 10:00am to 5:00pm EST most business days. If you encounter our answering machine... it does happen occasionally... please try back later. **One of the considerations in offering very low cost software is that we are unable to return calls for technical support.**

Callers who are rude, abusive or pig-headed with our technical support staff will wind up as demon-chow. See the section on Registration elsewhere in this document.

Please do not call our 800 number for technical support. The people who answer our sales line can put a credit card machine into warp drive, but they know less about software than most cats know about quantum mechanics.

We are also happy to provide you with technical support by e-mail, as discussed earlier in this document.

Books

Steven William Rimmer's new novel **The Order** is available at better book shops, or

directly through Alchemy Mindworks. It's a tale of fertility magic, alchemy, secret societies, pagan lust and Victorian nasties... all holed up in a castle in the Scottish highlands about a hundred years ago. It costs \$6.99... see the order form accompanying this software for more information.

Steven William Rimmer's still newer novel, **Wyccad**, as also available at better bookshops, or directly through Alchemy Mindworks. It costs \$6.99... see the order form accompanying this software for more information.

If you use Alchemy Mindworks software, you might find the following books by Steven William Rimmer useful as well. You can browse a listing of these books and Steve's fiction at our World Wide Web server on the Internet. It's at **<http://www.mindworkshop.com>**

Windows and OS/2 Bitmapped Graphics, published by McGraw Hill, is a detailed discussion of writing applications that use bitmapped graphic files and elements in a Windows or OS/2 Warp environment. It includes complete source code to work with PCX, GIF, TIFF, Targa, BMP, PNG and JPEG. It also discusses printing, displaying bitmaps in a window and dithering. The companion CD-ROM features pre-compiled DLLs to read and write graphics in each of the supported formats, and over 1000 example graphics.

Planet Internet, published by Windcrest/McGraw Hill, is a guide to the pubs, curious shops, back alleys and brothels of the Internet. It's a wealth of unusual and infrequently heard-of newsgroups, FTP sites and other resources on the net. It also includes some of the wildest graphics to be found on paper... parental guidance is advised. This is the book to have if you want to rip out onto the information superhighway and have a really good time.

Windows and OS/2 Bitmapped Graphics, published by McGraw Hill, is a detailed discussion of writing applications that use bitmapped graphic files and elements in a Windows or OS/2 Warp environment. It includes complete source code to work with PCX, GIF, TIFF, Targa, BMP, PNG and JPEG. It also discusses printing, displaying bitmaps in a window and dithering. The companion CD-ROM features pre-compiled DLLs to read and write graphics in each of the supported formats, and over 1000 example graphics.

Internet Graphics Toolkit, published by McGraw Hill is the definitive guide to looking at pictures on the Internet. It explains how the image files used on the net can be downloaded, viewed, created and modied, how to locate graphics, how uuencoding works, how to deal with FTP sites and how to use the graphics you download in other applications. It also provides a sampling of places on the web to troll for pictures. In the tradition of **Planet Internet**, this book presents the net as it really is -- vibrant, raunchy and incesantly entertaining. The companion CD-ROM includes evaluation copies of all the Alchemy Mindworks' shareware -- found elsewhere at this page -- and over 1000 example graphics downloaded from the Internet.

Planet Internet World Wide Web Explorer, published by Windcrest/McGraw Hill is a combination road map, sextant and raunchy little one-eyed tour guide with a slight limp, a thick unplaceable accent and a thousand filthy stories to tell. It will introduce you to all the nuances, secrets and peculiarities of surfing the World Wide Web, as well as providing you with over one hundred hand-chosen web pages. Fear no long polymer molecule synthesis at these sites -- Planet Internet World Wide Web Explorer will take you to the dark side of the web, where no one will admit to having gone before.

Return to Planet Internet, published by Windcrest/McGraw Hill, offers another voyage into the dark side of the Internet. With over a hundred hand-picked sites, it will beam you into such things as Elvis sitings, female domination, online opera, polyamory and catholic bashing to name but a few. Return to Planet Internet features special emphasis on the World Wide Web. This is the Internet book to read if you've looked over the edge of creation at the eternal fires of chaos and didn't think much of the colour scheme.

Advanced Windows Multimedia Programming, published by Windcrest/McGraw Hill, offers an extensive resource for high end multimedia applications. It includes example source code for displaying and animating bitmaps, working with a joystick, playing and creating MIDI files, modifying WAV files, working with the AVI extensions in the 1.1 VFW development kit and a lot more.

Constructing Windows Dialogs, published by Windcrest/McGraw Hill, will provide you with the techniques, secrets and dirty tricks to make the user interface of your Windows applications state of the art. Included are discussions of the standard Windows controls, the BWCC and CTL3D custom control libraries, multimedia, using graphics and creating your own custom control libraries.

Canned Code, published by Windcrest/McGraw Hill, is a collection of DOS and Windows programming tricks accumulated through years of real world application design. Included are bits of code to do high speed screen access, display a PCX file, access a dBASE DBF database, draw recursive graphics, play music, draw a maze, create fireworks, display a WordPerfect document, implement a text filter and many more useful and otherwise badly documented functions.

Windows Multimedia Programming, published by Windcrest/McGraw Hill, includes complete C language source code for Windows applications to play wave and MIDI files, display and animate bitmaps, read Kodak Photo-CD images through the Kodak PCD libraries, play compact disc audio tracks from a CD-ROM drive and display Video for Windows AVI files. The source code for the applications in the book, along with about a hundred megabytes worth of example graphics, sounds, scores and movies, plus six compact disc audio tracks of celtic music, are included on a CD-ROM.

Supercharged Bitmapped Graphics, published by Windcrest/McGraw Hill, discusses the GIF 89a, WordPerfect, BMP, IFF/LBM, TGA, MSP, 24-bit PCX and colour TIFF file formats, as well as such subjects as colour dithering and colour printing.

Super VGA Graphics, published by Windcrest/McGraw Hill, includes source code to read and write GIF and PCX files, and to do extensive graphics in the sixteen, 256 and 32,768 colour screen modes of popular super VGA cards. There is a chapter about printing graphics to a variety of printers... ranging from simple dot matrix printers though laser printers to colour ink jet printers. The book also includes a chapter about writing animated super-VGA arcade games.

A complete discussion of graphic file formats for use in word processing documents and desktop publishing chapters can be found in **The Graphic File Toolkit**, published by Addison-Wesley. This is an invaluable reference for anyone who wants to use graphic files but does not want to become a programmer in the process.

Corel Draw It, Published by Addison Wesley, is the essential guide to Corel Draw 4.0. Streamlined to take you from a standing start to complete mastery of Corel Draw in as short a time as possible, Corel Draw It offers a lucid explanation of lines and fills, colour, type and typography, bitmaps, importing and exporting, special effects and numerous other areas of Corel Draw.

If your local bookstore doesn't have these books, they can be mail or phone ordered from Christie and Christie Asscoaites, 261 Alice Street, Kincardine, Ontario N2Z 2P9 CANADA, telephone 1-800-263 1991 or 1-519-396-9553. FAX 1-519-396-9554.

Bundling *GIF Construction Set for Windows*

If you'd like to include *GIF Construction Set for Windows* with your product, please get in touch with us. We have several ways to help you do this so your users get the most out of our software and we won't have to set our leather-winged demon of the night on 'em.

Notes for Shareware Distributors

Please see the Shareware Distribution document included with GIF Construction Set.

Revision History

1.0N - Added movie to GIF conversion. Fixed some string table problems. Improved the timing features. Fixed a display problem in View mode. Added Image block positioning to the Manage dialog. Added keyboard accelerators to the dialog boxes... tres retro. Added multiple file selection to Animation Wizard. Added a Frequently Asked Questions document to the GIF Construction Set package. Added wide palette GIF files, to support more than 256 colours and break the laws of nature.

1.0M - Made GIF Construction Set compatible with Windows NT -- it doesn't sound like much here, but t'was a mighty battle. Fixed a big in the GIF import filter. Fine tuned the Animation Wizard.

1.0L - Added a feature to check for animations which might upset Netscape. Added a feature to adjust the header screen width and screen depth automatically on Save. Added a feature to check for Netscape-incompatible animations on Save. Added a banner generator. Added an animated transition generator. Added an Extract feature. Added block management. Added an animation wizard. Added more default palette options. Cleaned up some Windows cosmetic issues.

1.0k - Fixed a number of really strange compiler oddities in the 32-bit build - by changing compilers. Back to Borland C++. Note that this only affects the 32-bit version - there is no 1.0k build for the sixteen-bit version.

1.0j - Fixed a memory leak in view mode. Released the 32-bit build.

1.0i - Fixed a bug in the palette dialog.

1.0h - Improved the colour dithering. Added a default colour depth item to Setup. Modified the New function to automatically install a default palette. Fixed a bug in the JPEG import function. Added multiple image importing. Fixed a bug that made some animation unstoppable. Added block titles. Bade a sad farewell to bookware.

1.0g - Added looping.

1.0f - Added true transparency. Added a feature to remember the directory GIF Construction Set was logged into when it last terminated. Fixed a bug that made it disappear from time to time under Windows 95. Added an Export function.

1.0e - Fixed a DLL conflict.

1.0d - Added PNG support for the file import function. Generally tidied things up under Windows 95. Added an option to display interlaced images in interlaced order. Fixed a bug that caused GIF Construction Set to create illegal four- and eight-colour GIF files. Added an eyedropper tool to the plain text and control block dialogs.

1.0c - Fixed a problem that caused transparent monochrome GIF files to display incorrectly on some displays. Added spin buttons to some of the dialogs. Fixed a problem with setting colours in the plain text dialog after viewing. Added a version display for unregistered copies.

1.0b - Fixed a bug which caused some GIF files to appear to only have two colours, when in fact they had complete palettes.

Other Alchemy Mindworks Shareware

The following are the other shareware packages we have available as of this writing. Our newsletter, available for the asking, will list all the current ones.

Graphic Workshop for Windows

Graphic Workshop for Windows 95

Offering the same functionality as Graphic Workshop for DOS, the Windows implementation of this package offers a traditional Windows interface, multitasking and lots of things to click on. It converts, prints, views, dithers, transforms, flips, rotates, scales, crops, colour adjusts, scans, quantizes, catalogs and wreaks special effects on XBM, DLL,VBX, PNG, MacPaint, GEM/Ventura IMG, PCX, GIF, TIFF, WPG, MSP, IFF/LBM, BMP, RLE, BGA, CDR bitmaps and previews, CPT, FITS, JPEG, ART, RAS, HRZ, FLC, FLI, MOV view only, MPEG, WMF, AVI, ICO, CGM, HPGL, CLP, CUT, Halo CUT, Targa, text and EXE picture files. Graphic Workshop for Windows will display and print on any card and printer respectively that can be driven by Windows. It features batch processing, an intuitive user interface and easy to follow menus. Includes several unicorns.

Graphic Workshop for DOS

This is the last word in image programs. It converts, prints, views, dithers, transforms, flips, rotates, scales, crops, colour adjusts, catalogs, quantizes and wreaks special effects on MacPaint, GEM/Ventura IMG, PCX, GIF, TIFF, WPG, MSP, IFF/LBM, BMP, RAS, JPEG, HRZ, RLE, Halo CUT, Targa, EXE, TXT and EPS files. It drives CGA, Hercules, EGA, VGA and pretty well all super VGA cards. It will drive PostScript and LaserJet Plus laser printers, colour PostScript printers, colour inkjets and most dot matrix printers. It features batch processing, extended and expanded memory support, an intuitive user interface and easy to follow menus. It allows you to convert colour image files into superb black and white clip art for desktop publishing, among other things. The registered version includes a powerful VGA and super-VGA screen capture utility.

GraphSaver for Windows

GraphSaver for Windows is a Windows screen saver. It will allow you to integrate your own graphics into the software. When GraphSaver for Windows blanks your screen, it will display the images you've selected. It will also allow you to select one of a library of animated special effects transitions for each image, and to add sound effects to your pictures. The images used by GraphSaver for Windows can be stored as GIF, BMP, JPEG, PNG and PCX files. GraphSaver for Windows is being offered as bookware... the cost of registration is to buy and read Steven William Rimmer's new novel Wyccad.

Pagan Daybook for Windows

Pagan Daybook for Windows 95

This is a small Windows application which will help you keep track of the pagan calendar. Never again be at a loss to know when the summer solstice occurs, or when to celebrate the festival of Fortunalia. It's considerably more interesting than a calendar that tells you when the bank holidays and long weekends fall. The Pagan Daybook is being offered as bookware... the cost of registration is to buy Steven William Rimmer's new novel *The Order*.

Pagan Daybook for DOS

This is a DOS text-mode implementation of the Pagan Daybook for Windows. Bookware.

Pagan Daybook for Macintosh

The Macintosh version of Pagan Daybook has the same features as the Windows version. Bookware.

Pagan Daybook Screen Saver for Windows

This is a screen saver which will blank your screen and display the Pagan Daybook, described above, after a period of inactivity. The Pagan Daybook Screen Saver is being offered as bookware... the cost of registration is to buy Steven William Rimmer's new novel *Wyccad*.

QuickShow Light for Windows

QuickShow for Windows is a powerful, easy to use Windows multimedia slide show. It will display graphics in any mixture of the following formats: MacPaint, IMG, PCX, GIF, JPEG, TIFF, WPG, MSP, IFF/LBM, BMP, RLE, Halo CUT, Targa, ART, HRZ and Photo CD. Special effects include WAV, MIDI and AVI files. QuickShow is fast, easy to use and can create slide shows which are as simple or as complex as you want them. QuickShow is being offered as bookware... the cost of registration is to buy Steven William Rimmer's new novel *The Order*.

GrafCat for Windows

GrafCat for Windows is an application to print paper catalogs of graphic files. It will print some or all of the images in a directory with anywhere from six to forty-eight images to a page in high resolution thumbnails. It will drive any printer that Windows has drivers for in two-colour dithered monochrome, 256-level grey scale and 24-bit true colour. GrafCat's output is a very convenient way to keep track of lots of images, handle proof pages for book manuscripts and deal with other situations wherein you

want to print a lot of pictures. It works with most of the file types supported by Graphic Workshop for Windows, including PCX, GIF, JPEG, Photo-CD, WMF and TIFF. GrafCat for Windows is being offered as bookware... the cost of registration is to buy and read Steven William Rimmer's new novel *Wyccad*.

Multimedia Workshop Light for Windows

Multimedia Workshop Light for Windows is an easy to use Windows WAV, MIDI and AVI file manager. It allows you to audition, queue, rename, delete and investigate multimedia files. Multimedia Workshop Light is being offered as bookware... the cost of registration is to buy Steven William Rimmer's new novel *The Order*.

If you can't obtain them from the usual shareware sources, they're available from us for \$40.00 each preregistered (except the bookware). They're also all available for downloading from our bulletin board at 1-905-936-9503 and from our FTP site and WWW page, listed elsewhere in this document. We can send you an evaluation disk set with all our applications on it for \$10.00.

Legal Dogma

Neither the author nor Alchemy Mindworks Inc. assumes responsibility for any damage or loss caused by the use of these programs, however it comes down. If you can think of a way a picture program can cause you damage or loss you've a sneakier mind than any of us.

All the registered trademarks used herein are registered to whoever it is that owns them. This notification is given in lieu of any specific list of trademarks and their owners, which would not be as inclusive and would probably take a lot longer to type.

If you register *GIF Construction Set for Windows*, we will assume that you are doing so having tested the shareware version and ascertained that it's suitable for your hardware and requirements. We cannot provide refunds for shareware registration if you subsequently change your mind.

The JPEG reader in IFMT.DLL is based on code from the Independent JPEG Group.

Portions of the PNG code were written by Jean-loup Gailly and Mark Adler.

GIF is a trademark of CompuServe. LZW licenced under U.S. patent 4,558,302 and foreign counterparts.

GIF Construction Set, QuickShow, Multimedia Workshop for Windows, Pagan Daybook, Graphic Workshop, Desktop Paint, Image Gallery, GrafCat and GraphSaver are trademarks of Alchemy Mindworks Inc.

Shareware stuff – if you have downloaded GIF Construction Set or had it given to you on

disk to try out, we invite you to play with it for as long as you like to ascertain whether it's what you need. This shareware is not crippled, nor will it suddenly stop working after a predetermined period of time. At such time as you feel it's useful enough to do productive work, we ask that you register it. Using GIF files created by GIF Construction Set in your web pages constitutes productive work. If you don't think it's worth registering, please simply delete this software and any files you created while you were evaluating it.

Rumour has it that the leather-winged demon of the night trolls the web looking for GIF files that include unregistered GIF Construction Set comment blocks and rips the lungs out of their owners. Of course, this is just a rumour.

That's it...