

#### Basics: Menu Basics: Controls

Use the scroll bar to see entries not currently visible in the Help window. To learn how to use Help, choose "Help-How to use Help" in the menu bar.

### **Registering PREVUE**

#### **Overview**

## The Image

<u>Viewing Window</u> <u>Viewing Window Toolbar</u> <u>Viewing Window Hotkeys</u>

#### The Remote Control

Control Window Toolbar
Control Window Hotkeys

Image & Multimedia File Formats
Associating PREVUE with File Manager
Questions & Answers



Basics: Menu Basics: Controls

PREVUE supports <u>multiple instances</u>. This means that you can have several copies of PREVUE running simultaneously - each showing a different picture. There are two windows that comprise PREVUE.

The <u>Viewing Window</u> can be thought of as the monitor or television set; it displays the image file or <u>AVI</u> video or <u>FLI</u> animation playback; it has all options to change how the graphic image is shown without changing the image in memory. The entire image is always scaled to fit the window; scrolling and zooming options are also scaled accordingly.

The <u>Control Window</u> acts as a remote control; it is where you activate video controls, select, convert, modify and save image files; most image processing options will actually change the image (e.g., size, colors) but can be undone; all changes are seen on the **viewing window**.

The home icon on the **viewing window** links you to the **control window** whenever it is covered by another window, hidden or minimized; double-click on the image duplicates this function.

A **viewing window** or **control window** (amidst other optional instances) can be active or inactive. The active window has **focus**. On 256-color modes, the proper colors for the active window will always be maintained, while inactive windows will have colors that will be matched against the active window's palette as closely as possible; this is due to Windows **palette management**.



### **Control Window Menu**

Basics: Menu Basics: Controls

#### File

Load Save Delete Print

User Options
Save User Profile
Load User Profile

About - displays program information.

Exit - terminates the program.

#### **Image**

**BackUp Image** 

**Undo Image Changes** 

Tune Colors
Resize Image
Convert to Gray
Convert to 256 colors
Convert to 16 colors
Convert to B&W
Flip Image
Rotate

#### Video

Play Video
Pause Video
Close Video
Playback Features
Configure VFW
Status Update

#### Help



## **Control Window Toolbar**

**Basics:Controls** Basics:Menu

File-Load File-Print

<del>\*</del>

File-User Options

Image-<u>Tune Colors</u>

Image-Resize Image

Video-Playback Features

**Rewind Video** 

Video-Close (Stop) Video

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Video-Play Video

Video-Pause Video

Frame Advance



Control Window Hotkeys
Basics:Menu Basics:Controls

Hotkey	Function
Ctrl-L	File- <u>Load</u>
Ctrl-S	File- <u>Save</u>
Ctrl-P	File- <u>Print</u>
Ctrl-B	Image- <u>BackUp Image</u>
Ctrl-U	Image- <u>Undo Image Changes</u>
Ctrl-T	Image- <u>Tune Colors</u>
Ctrl-R	Image- <u>Resize Image</u>
Shift-Ins	Video- <u>Play Video</u>
Shift-Del	Video- <u>Pause Video</u>
Alt-Bksp	Video- <u>Close (Stop) Video</u>
Ctrl-V	Video- <u>Playback Features</u>



Basics:Menu

**Basics:Controls** 

### View

**Home** 

**FullScreen Window** 

**AutoReset Window** 

**Optimize Window** 

**Fit In Window** 

Show (Hide) Scrollbars

**Relative Zoom** 

**Reset Zoom** 

**Minimize Zoom** 



# **Viewing Window Toolbar**

Basics:Menu Basics:Controls

View-Home

View-FullScreen Window

View-AutoReset Window

View-Optimize Window

View-Show (Hide) Scrollbars

View-Relative Zoom

■ View-Minimize Zoom



# Viewing Window Hot Keys Basics:Menu Basics:Controls

Hotkey	Function
Ctrl-H	View- <u>Home</u>
Ctrl-W	View-FullScreen Window
Ctrl-A	View-AutoReset Window
Ctrl-O	View-Optimize Window
Ctrl-1	View-Fit In Window-1:1
Ctrl-2	View-Fit In Window-1:2
Ctrl-3	View-Fit In Window-1:3
Ctrl-4	View-Fit In Window-1:4
Ctrl-5	View-Fit In Window-1:5
Ctrl-6	View-Fit In Window-1:6
Ctrl-7	View-Fit In Window-1:7
Ctrl-8	View-Fit In Window-1:8
Ctrl-S	View-Show (Hide) Scrollbars
Ctrl-R	View-Reset Zoom
Ctrl-M	View-Minimize Zoom



Viewing Window: Resizing Options
Basics:Menu Basics:Controls

#### Icon View Menu Option and Description

"View-FullScreen Window" centers the image on a maximized window without the toolbar or menubar; click the home icon on the lower right corner of the screen to return to a normal window. This is the only function that displays the image as is (i.e., without scaling it); as such, if the image is larger than the screen then it is cropped;

"View-**AutoReset Window**" adjusts the window and image to the actual image size or largest possible that can fit on your screen.

"View-**Optimize Window**" adjusts the window and image to minimize the background bordering the image. This option is particularly useful when you manually adjust the viewing window and want the image to be resized with minimal background.

**N/A** "View-**Fit In Window"** adjusts the window and image to smaller, proportional **viewing window** sizes with the following image to window ratios: 1:2, 1:3, 1:4, 1:5, 1:6, 1:7 and 1:8; if the window will cannot shrink the window and image to that size it is simply ignored.



# Viewing Window: Zooming Options Basics:Menu Basics:Controls

#### Icon View Menu Option and Description

"View-... Scrollbars" toggles the scrollbars (Show or Hide). If the scrollbars are toggled and shown, then the image is automatically zoomed to an optimal factor given the size of the window; you can use the Zoom scrollbars to increase or decrease the zoom factor. If the scrollbars are toggled and hidden, then the current zoom factor is retained.

relative zoom scrollbar adjusts the zoom factor and image, relative to the display window. If the image is zoomed then the **image scrollbars** are toggled and shown. If the zoom factor is set to 100, then the **image scrollbars** are toggled and hidden.

- **N/A** "View-**Relative Zoom**" sets zoom factor, relative to the display window, in increments of 100 from 200% to 800%; selected values directly set the **relative zoom scrollbar**.
- **N/A** "View-**Reset Zoom"** resets the relative zoom factor to 100% and toggles (hides) the image scrollbars, if they are shown.

View-**Minimize Zoom** adjusts the zooming factor to a minimum value without changing the aspect ratio; this is the same value calculated when the scrollbars are toggled and shown. Depending on the size of the window, setting the **relative zoom scrollbar** to a value less than the minimum can cause distortion of the aspect ratio; use this function to restore the aspect ratio and zoom factor to defaults.



#### Loading, Saving & Deleting Image Files

Basics: Menu Basics: Controls

#### How to Load an Image (or Multimedia) File

From the control window menu, select "File-Load" or click the "File-Load" toolbar button.

- 1. Change to desired drive and/or directory.
- 2. If desired, change the filename extension from the **Type** dropbox.
- 3. Highlight a filename from the **Files** listbox.
- 4. If <u>GIF</u>, <u>PCX TGA TIF</u>, <u>BMP</u> or <u>DIB</u> files are selected, click the <u>Info button</u> for information about the image.
- 5. Click the **Load button**. or double-click on a filename to load it.

#### How to Save an Image File

From the **control window** menu, select "File-Save". The **Load button** changes into a **Save button**; and the **Type** dropbox will list available <u>file formats</u> and compression options.

- 1. Change to desired drive and/or directory.
- 2. If desired, select a file format and compression option from the **Type** dropbox.
- 3. Highlight a filename from the **File** listbox to overwrite it or enter a new filename on the **File** textbox.
- 4. Click the Save button.

#### How to Delete an Image File

- 1. Change to desired drive and/or directory.
- 2. Highlight a filename from the File listbox.
- 3. From the **control window** menu, select "File-Delete"



#### **Basics:Controls**

#### How to Print an Image File

From the **control window** menu, select "File-Print" or click the "File-Print" toolbar button. A print dialog box will show the current paper size, orientation, resolution (in dots per inch - dpi), and position of image when printed on a **simulated document**.

- 1. Optionally, click the **Setup button** to change printer settings. The simulated document will be repositioned and resized depending on the paper and orientation selected.
- 2. Optionally, resize the image by setting the **Size Scrollbar** (10% to 100%); a dark rectangle on the **simulated document** will show the image's relative size when printed.
- 3. Optionally, position the image on the document by adjusting the **horizontal and vertical** scrollbars on the simulated document.
- 4. Click **Print button** to print.

#### **B&W Printing Tips**

On black & white printers, PREVUE will use an error-distributed <u>dithering</u> method for superior gray shades. For best results:

- o on Epson-compatible printers, set dpi to 120x144 to equalize white spaces;
- o convert the image to gray shades and modify it's contrast and brightness to taste.



#### **Basics:Controls**

**Verify GIFs** enables special processing for <u>GIF</u> files; as an on-line format, these files were intended to be viewed as they are decoded (not simply loaded in memory). There are several <u>GIF decoding options</u>.

**AutoSave** enables automatic saving of a loaded image to disk before you use any image processing functions on it; a separate image backup command can be called by selecting "File-Image-<u>BackUp</u> <u>Image</u>". Set this option if you call the "Image-<u>Tune Colors</u>" or "Image-<u>Resize Image</u>" options often.

**AutoSize** forces images to be initially decoded to a smaller **viewing window**, regardless of it's height and width, faster display updates. The actual image is not modified - the image is simply resized to fit a smaller **viewing window**. Select "View-<u>AutoReset Window</u>" or it's toolbar equivalent to resize to window to actual dimensions (or largest possible).

**AutoDither** enables automatic <u>dithering</u> of 24-bit images on 256-color video modes, or all images with 16+ colors to 16 colors in 16-color modes. This reduces the color depth of images to match your video mode - thereby speeding up display updates. Set this option if you have several applications open on your desktop and want to view the image for an extended time; this is highly recommended for viewing 24-bit images on 256-color modes or when your video driver renders 24-bit and 256-color images poorly on 16-color modes.

AutoCenter centers the viewing window on your desktop whenever you load a new image.

**AutoAspect** enables automatic resizing of 320x200, 320x400, 320x480, 360x480 and 640x400 images to a square aspect ratio for accurate viewing and printing. Keep this option set if you have a lot of old images with image dimensions mentioned. If a **GIF** file was decoded **to Window** or **to FullScreen** (see **GIF decoding options**) then it is corrected after reactivating either the control window or viewing window (i.e., by clicking any control or window).

**JPG loss scrollbar** adjusts the degree of image compression vs. image quality for saving images in **JPG** format; the setting ranges between 0 (default, for minimum compression with maximum quality) to 100 (maximum compression with significant loss in quality).



# Basics:Menu Basics:Controls

Selecting "File-<u>User Options</u>" will present the following options for decoding <u>GIF</u> files.

- o **to Memory** decodes first image only; it is the fastest mode and includes enhanced verification; all other features are disabled; image is retained and can be edited.
- o **to Window** decodes simultaneously to a Window and memory; multiple-image graphics and <u>89a</u> <u>features</u> are enabled; the image is retained and can be edited. The image is decoded without corrections to screen; after it is fully displayed, the image is updated with corrections, if any (eg., fit to screen, aspect ratio). If GIF comments are available, then another window will pop up with comments. Decoding can be aborted by pressing Esc key.
- o to FullScreen decodes simultaneously to full screen and memory; the home icon will appear on the lower left corner to return to a normal Window; the image is centered if smaller than the screen, clipped if larger; all other features are essentially the same as to Window decode mode described above.
- o **to Window (view only)** decodes to a window for a quick "browse"; only the first graphic image is decoded; the image is **not** retained in memory;
- o to FullScreen (view only) decodes to full screen for a quick "browse"; the home icon will appear on the lower left corner to return to a normal Window; the image is centered if smaller than the screen, clipped if larger; all other features are essentially the same as to Window (view only) decode mode described above.



#### How to Backup an Image

From the **control window** menu, select "Image-Backup Image". If the **AutoSave** option is enabled then the image is automatically saved to disk before calling "Image-<u>Tune Colors</u>" or "Image-<u>Resize Image</u>". After an image is saved "Image-Backup Image" is enabled.

If no image backup is available, you will always prompted with the opportunity to backup the image before image modifications.

#### **How to Undo Image Changes**

From the **control window** menu, select "Image-Undo Image". This menu option is enabled only if the current loaded image is saved via the "Image-Backup Image" or the **AutoSave** option.



### Image Conversion to Gray or 256 Colors

Basics:Menu Basics:Controls

#### **How to Convert Color Images to Gray Shades**

From the **control window** menu, select "Image-Convert to Gray". This function will convert 16-color, 256-color and True-color (24 bit) images. Use this function to modify and enhance an image for printing on Black & White printers.

For best results on 16-color video modes, convert the image to 16 colors after converting to gray shades. (see **Convert to 16 Colors**)

#### **How to Convert True-Color Images to 256 Colors**

From the **control window** menu, select "Image-Convert to 256 colors-Optimize Palette" or "Image-Convert to 256 colors-Error Diffusion".

The **Optimized Palette** method will create a histogram and analyze which are the most frequently used colors from over 16 million possible colors! It will then select 256 colors and remap the image to that palette. Since this function can take a long time to complete, you will be prompted with an opportunity to abort the operation. Since no **dithering** is applied, the image is "solid" and resizing after using this method leaves no undesirable results (i.e., extraneous patterns).

The **Error Diffusion** method uses a uniform 256-color palette to represent as many as colors as possible). It then applies <u>dithering</u> (Stucki algorithm) to the image to enhance color depth perception. This method is generally faster and provides good overall results. Since dithering is applied, resizing the image after using this method has undesirable results (i.e., extraneous patterns). For best results, always resize the image before applying this method. This method is used by the <u>AutoDither</u> option.



#### **How to Convert Color Images to 16 Colors**

From the **control window** menu, select "Image-Convert to 16 colors-Bayesian" or "Image-Convert to 16 colors-Error Diffusion". The functions will handle any colored image.

The **Bayesian** method uses a uniform 16-color palette and applies ordered dithers (i.e., Bayer algorithm) to the image. Since ordered dithering is applied, resizing the image after using this method has very undesirable results (i.e., can make image unrecognizable). For best results, always resize the image before applying this method.

The **Error Diffusion** method uses a uniform 16-color palette to represent as many as colors as possible). It then applies **dithering** (Stucki algorithm) to the image to enhance color depth perception. This method is generally faster and provides good overall results. Since dithering is applied, resizing the image after using this method has undesirable results (i.e., extraneous patterns). For best results, always resize the image before applying this method. This method is used by the **AutoDither** option.



#### How to Convert Color Images to Black & White

From the **control window** menu, select "Image-Convert to 16 colors-Bayesian" or "Image-Convert to 16 colors-Error Diffusion" or "Image-Convert to 16 colors-Halftone".

The **Bayesian** method applies black & white, ordered dithers (i.e., Bayer algorithm) to the image. Since ordered dithering is applied, resizing the image after using this method has very undesirable results (i.e., can make image unrecognizable). For best results, always resize the image before applying this method.

The **Error Diffusion** method dithers (Stucki algorithm) the image to enhance gray shade perception. This method is generally faster and provides good overall results. Since **dithering** is applied, resizing the image after using this method has undesirable results (i.e., extraneous patterns). For best results, always resize the image before applying this method.

The **Halftone** method applies black & white, ordered dithers (similar to pattern seen in newspaper pictures). This method is the fastest but has the poorest results. Since ordered dithering is applied, resizing the image after using this method has very undesirable results (i.e., can make image unrecognizable). For best results, always resize the image before applying this method.



#### How to Resize an Image

- 1. From the **control window** menu, select "Image-Resize Image" or click the "Image-Resize Image" toolbar button. A dialog box will be shown on the **control window**.
- Select a resizing factor (from 10% to 800% of original image size) with the Size Scollbar; you
  can also enter values directly into the Width textbox and/or Height textbox to distort the image
  aspect ratio.

If the new image cannot fit into Windows memory, PREVUE prompt you with the maximum height and width values that can fit into current Windows memory; the **Width textbox** and **Height textbox** will be updated with these values.

3. Click the Resize button.

After the Image is resized, the window is also resized to the actual image size (or largest possible) to accurately assess the appearance of the resized image. This is particularly important when the **AutoSize** option is enabled, since it reduces the size of the **display window** for faster display updates.

#### **How to Tune Image Colors**

- 1. From the **control window** menu, select "Image-Tune Image" or click the "Image-Tune Image" toolbar button. A dialog box will be shown on the **control window**.
- 2. Adjust The Sharp scrollbar, Brit scrollbar and/or Cont scrollbars.

You can click the **Reset button** at anytime to reset all scrollbars to zero (default).

All scrollbars have a -100% to 100% range which will increase or decrease sharpness, brightness and contrast respectively. The **Sharp scrollbar** is enabled only with gray scale and 24-bit images; it uses anti-aliasing to soften and convolution to sharpen an image.

3. Click the **Apply button** to begin tuning.

The **Undo button** will reload the back-up image from disk (see **Backup Image**); this is provided as a convenience so that you can interactively experiment with tuning functions.



#### How to Flip an Image

From the **control window** menu, select "Image-Flip Image" and choose from "Flip Horizontal" or "Flip Vertical".

**Flip Vertical** creates a mirror image by flipping the image from top to bottom. **Flip Horizontal** creates a mirror image by flipping the image from left to right.

#### How to Rotate an Image

From the **control window** menu, select "Image-Rotate Image" and choose from "90 degrees", "180 degrees" or "270 degrees". If the <u>AutoSize</u> option is disabled then do the following to correct the aspect ratio ( Important: The image must have a square aspect ratio; if the <u>AutoAspect</u> option is disabled, then it will still appear distorted).

After the Image is rotated the aspect ratio will most likely be distorted if the image was rotated by 90 or 270 degrees. Although it will appear correct, the actual image does not have the correct aspect ratio. Select "View-<u>AutoReset Window</u>" or it's toolbar equivalent to resize to window to actual dimensions (or largest possible). Follow these steps to correct a rotated aspect ratio.

- From the control window menu, select "Image-Resize Image" or click the "Image-Resize Image" toolbar button. A dialog box will be shown on the control window.
- 2. Exchange the values in the **Width textbox** and **Height textbox**. For example, if the original image had a width of 640 and a height of 480 pixels, exchange the values by entering "480" in the **Width textbox** and "640" in the **Height textbox**.
- 3, Click the **Resize button**.



#### Icon View Menu Option and Description

	"Video- <b>Play Video</b> " starts or restarts playback of <u>AVI</u> video or <u>FLI</u> animation file in viewing . Playback is always windowed to facilitate scaling of video image and playback. FLI animation and cannot be scaled.
	"Video-Pause Video" pauses playback of video or animation file. This allows you to resize the eo image, or set the video/animation file to a specific position.
Ш	"Video-Close Video" closes the video/animation file and removes it's drivers from memory.

- "Video-<u>Playback Features</u>" displays a dialog box with special playback features; these include toggling audio on or off, monitoring the video's timeline, non-linear fast forwarding or rewinding of the video file, grabbing video frames, resizing/scaling the video window, correcting the **viewing window** aspect ratio, information on the video frame rate, height and width are also provided.
- N/A "Video-**Configure VFW"** activates the standard Video For Windows configuration screen. All options will be implemented except Full Screen playback to facilitate scaling of AVI video image and playback.
- N/A "Video-Status Update" adjusts how often the video timeline scrollbar (see <a href="Playback">Playback</a>
  <a href="Features">Features</a>) is updated. Options range from "1:1 second" (once every second) to "6:1 second" (six times a second). Since playing video uses a lot of the CPU's time, set update to "1:1 second" on a 386s.
- Rewind Video will pause video/animation playback and reset the file position to the beginning analogous to completely "rewinding" a tape. This option can be accessed only by the toolbar icon.
- Frame Advance will pause video/animation playback and advances the file by one frame. This option can be accessed only by the toolbar icon.



Basics: Menu Basics: Controls

From the **control window** menu, select "Video-Playback Features" or click the video toolbar button after the video file and <u>AVI</u> or <u>FLI</u>drivers have been loaded. A dialog box appears which contains special video controls.

**How to Turn Audio On/Off** 

**How to Position the Video/Animation File to Specific Frame** 

**How to Capture AVI Video Stills** 

**How to Resize the AVI Video Window** 



#### How to Turn AVI Audio On/Off

From the **control window** menu, select "Video-Playback Features" or click the video toolbar button after the video file and <u>AVI</u> drivers have been loaded. A dialog box appears which contains special video controls.

**Toggle Audio (On/Off)** will pause video playback and will set audio playback on or off when video is played. This function is useful for viewing video in an office (to maintain a quite atmosphere) or at night (to avoid waking up others).



# **Selecting Video Frames**

Basics: Menu Basics: Controls

From the **control window** menu, select "Video-Playback Features" or click the video toolbar button after the video file and <u>AVI</u> or <u>FLI</u> drivers have been loaded. A dialog box appears which contains special video controls.

#### How to Position the Video/Animation File to Specific Frame

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analogo	us to completely "rewinding"	a tape.			

1>	The Frame Advance	toolbar button	ca be used to	advance the vi	deo by one frame

The **video timeline scrollbar** is updates the scroll position to reflect the current frame being played. It is updated every second (up to six times a second) depending on your "Video-<u>Status Update</u>" setting. If clicked or scrolled, it will pause video playback and move to a desired position in the video file. The scrollbar arrows can also be used move to the previous or next frame.



From the **control window** menu, select "Video-Playback Features" or click the video toolbar button after the video file and <u>AVI</u> drivers have been loaded. A special dialog box appears which contains special controls for video.

#### **How to Capture AVI Video Stills**

- 1 Position the video file to the desired frame.
- 2. Click the **Grab Still button** to capture the current frame being displayed in the viewing window. After successfully grabbing an image, the **View Still button** will be enabled.
- 3. If satisfied with your selection, click the **View Still button** to close the current video file and converts the grabbed video frame into a bitmap; thereafter, you can edit, apply image processing, print, and save the image.



At anytime after the video is loaded, you can manually adjust the **viewing window** size by **"dragging" the frame** of the **viewing window**; video playback will be paused and resized to fit the new window. Since you may not accurately resize the window with the correct aspect ratio (i.e., it will appear elongated, "flat", "thin" or wide) several options are provided for your convenience.

#### How to Resize the AVI Video Window

- 1. From the **control window** menu, select "Video-Playback Features" or click the video toolbar button after the video file and <u>AVI</u> drivers have been loaded. A special dialog box appears which contains special controls for video.
- 2. Optionally, click the **Fix Aspect button** to correct the **viewing window** size and keep the original aspect ratio; video playback will be paused then the video window will be adjusted.
- 3. Optionally, click the **Reset button to** restore the **viewing window** to the actual frame size with no magnification (i.e., 100%); video playback will be paused then the video window will be reset.
- Optionally, select a specific resizing factor by clicking one of the buttons labeled as 125%, 150%, 175%, 200%, 225%, 250%, 275%, and 300%; video playback will be paused then the video window will adjust to desired factor.



# **Supported File Formats**

Basics:Menu

**Basics:Controls** 

PREVUE supports the following file formats:

**AVI**(load only)

BMP(load/save)

DCX(load only)

DIB(load/save)

**EPS**(load only)

FLI(load only)

FLC(load only)

GIF(load/save)

JIF(load/save)

JPG(load/save)

MID(load only)

PCX(load/save)

PCT(load/save)

TGA(load/save)

TIF(load/save)

WAV(load only)

WPG(load/save)

Basics:Menu **Basics:Controls** 

#### **Graphics**

- Q. Why are large images always scaled? How can I see the actual image?
- Q. How do I see those special GIF 89a features?
- Q. Why are the colors of the image wrong when it looked fine in DOS?
- Q. Why is my image grainy?
- Q. My video card can handle more than 256-colors, why don't I see it?

### Video

- Q. Why can't I run AVI movies?
- Q. Why can't I run FLI animation?
- Q. Why can't I play WAV or MID (MIDI) files?
- Q. Why is the AVI video playback jerky?
- Q. Why is AVI video playback silent?

### **System**

- Q. How can I speed up PREVUE's start up?
- Q. How can I run PREVUE from another program and show a picture?
- Q. How can I "Associate" PREVUE so that Window's File Manager uses PREVUE to view files and play video?



#### Q. Why can't I run AVI movies?

A. You must have the Video For Windows runtime drivers installed in Windows; you can download the drivers from Windows-related forums at CompuServe or search local BBSs for VFW\_RT.ZIP or VFWRUN; scan for "VFW" as a keyword.

#### Q. Why can't I run FLI animation?

**A.** You must have the AAWIN.DLL (1.1 or later) and MCIAAP.DRV files installed in your Windows environment. Get then from Autodesk's Forum on CompuServe, or search your local BBSs for it; scan for "AAWIN" as a keyword.

#### Q. Why can't I play WAV or MID (MIDI) files?

A. You must have a sound card and appropriate drivers installed. Audio files must match your hardware setup (i.e., 16-bit <u>WAV</u> and stereo files cannot play on 8-bit and mono sound cards, respectively, without appropriate emulators). Also, only <u>MID</u> files with matching instruments mapped by your MIDI Mapper can be played.

#### Q. Why is AVI video playback silent?

A. Firstly, ensure that you have not disabled audio playback (see <u>Enabling & Disabling Audio</u> <u>Playback</u>). Playback of AVI files with sound requires a sound card and Windows driver capable of hardware-assisted <u>WAV</u> playback.

#### Q. Why is the AVI video playback jerky

**A.** Firstly, make sure your AVI files are placed on an uncompressed hard drive; AVI files should **not** be placed on compressed drives since decompression drivers interfere with smooth playback; they are already highly compressed and cannot be compressed further.

160x120x256 AVI files running at 15 fps (or less) should run smoothly on an 386/33. If the frame rate and/or frame size is greater, you may need a faster CPU (e.g., 486/33 for 320x240x32K colors at 24 fps) or video accelerator for smoother playback.

Enlarging the video window beyond your hardware's capability can also result in jerky video. If you resize a 160x120 video at 15fps by 200%, it would be similar to running a 320x240 video at 15 fps; reset the video window size to a smaller zoom factor or 100% until it runs smoothly (see **Resizing the Video Window**).



#### Q. Why are large images always scaled? How can I see the actual image?

A. If <u>AutoSize</u> is enabled then the image is scaled to a smaller window; you can activate the <u>AutoReset Window</u> function to reset the window to actual image size. If the image is larger than the largest possible window, set the <u>relative zoom scrollbar</u> to a value greater than 100.

To view an image without scaling, select **View-<u>FullScreen Window</u>**(or use it's hotkey or toolbar equivalent).

- Q. How do I see those special GIF 89a features?
- A. Firstly, you must have GIF 89a files (e.g. GRNEYE.GIF); check file header information with the **Info button**. If you do have GIF 89a files; ensure that GIF decode options are set **to Window** or **to FullScreen**(see **GIF Decoding Options**).
- Q. Why are the colors of the image wrong when it looked fine in DOS?
- **A.** In 16-color modes, Windows uses a fixed 16-color system palette; all colors are matched to the closest one available in the system palette.

In 256-color modes, Windows reserves 20 colors for the system palette; only 236 colors can be exact while remaining colors are simply matched to the closest one - the result 'hotspots'. With **GIF** files, PREVUE will apply special processing to remove 'hotspots'; the same process will be applied to other file formats in the future.

- Q. Why is my image grainy?
- **A.** What you see is <u>dithering</u>. This is automatically applied when the <u>AutoDither</u> option is enabled; your video driver may also use it's own dithering technique to show more colors (e.g., 256 colors in 16-color mode, or 24-bit color in 256-color mode).
- Q. My video card can handle more than 256-colors, why don't I see it?
- **A.** Your video card may support more colors but your Windows video driver may not; check with your video card dealer or manufacturer for an updated driver.



#### Q. How can I speed up PREVUE's start up?

A. PREVUE comes with a special program called PVULOADR.exe which speeds up the startup by as much as 300%. If you didn't load it during PREVUE's setup; "drag and drop" the PREVUE Preloader icon from the PREVUE Program Group into your Startup Program Group so that it loads everytime you initialize Windows.

If you inadvertently removed it from your desktop; open Startup Program Group and use the "File-New" selection of the Program Manager to add a **New Item**; use the **Browse button** to find PVULOADR.exe and install it there.

#### Q. How can I run PREVUE from another program and show a picture?

**A.** PREVUE can be "shelled" from a VB (Visual Basic) application or executed from any Windows applications and passed a command line parameter. This is similar to DOS applications where you pass the full path and name of the file.

For example, from VB you would call type this line of code if PREVUE was in drive D: and a directory "\PVU".

id%=Shell ("D:\PVU\PREVUE.exe d:\gif\test.gif",1)

- Q. How can I "Associate" PREVUE so that Window's File Manager uses PREVUE to view files and play video?
- **A.** From File Manager select "File-Associate" and enter the PREVUE's path and "PREVUE.EXE". For example, if you installed PREVUE in "D:\PREVUE" enter "D:\PREVUE\PREVUE.EXE". PREVUE supports numerous **file formats**) that you can "Associate" with File Manager.



#### **BASICS: Dialog Box Controls**

Dialog boxes contain various controls which you click on with the mouse to activate. Pressing the "Tab" key jumps from one selection to another while pressing "Alt" and an underlined character moves to a selection or activates a control. Dimmed controls are not available until certain conditions change.

#### **Edit Boxes, Text Boxes & Labels**

An edit box or text box is where you can type information. If you click the mouse pointer on an edit box, a flashing vertical bar appears; this is where you can type information. Labels simply describe a control or provide information on changing values.

#### **List Boxes & Drop Boxes**

List boxes and drop boxes display available choices. You use the scroll bar to see hidden choices; on a drop box, the list appears when you click on it or press the "Alt"+underlined character that labels the control . To select an item, click on the listed choice.

#### **Check Boxes and Option Buttons**

Check boxes let you activate or deactivate as many options as you want, by clicking on it or pressing the "Alt"+underlined character associated with it. Clicking on a check box toggles it's existing condition. A "X" will appear on an activated checkbox and disappears when deactivated.

Option buttons offer choices where only one can be selected. You can change your a selection by clicking on another option button in the same list (or pressing the "Alt"+underlined character labelling the option button); option buttons are typically grouped by a rectangular frame.

#### **Scroll Bars**

Scroll bars can show hidden portions of an image or list; they also change values shown in associated labels or edit boxes. Use the scroll arrows for minor incremental changes or drag the scroll button to make large changes corresponding to it's position on the scroll bar. You can also use the mouse on the spaces adjacent the scroll button for large incremental changes.

#### **Command Buttons**

After making selections, changing values, or typing information, click the appropriate command button to implement it. Other command buttons require no values to be set and will immediately implement the command (e.g., Reset buttons, Restore buttons, etc.).



#### **BASICS: Menu Bar & Toolbar**

The menu bar lets you select from various options in the **command window** or **viewing window**. When you select an option from the menu bar, a "pull-down" sub-menu of functions appears.

#### How to Use the Menu Bar

To "pull down" a menu, move the mouse pointer to a menu selection and click on it. Once the sub menu is shown, use the mouse to point to a selection and click on it to activate.

All menu selections have corresponding shortcut key strokes which you can use instead of using the mouse. To pull down a menu, press the "Alt" key and the underlined character in the menu bar selection. Once the sub-menu is shown, press the underlined character identifying the selection to activate it. You can also use the arrow keys to navigate and highlight sub-menu options, then press "Enter" to activate it.

#### **Hotkeys & Toolbar buttons**

When you "pull down" a menu you will notice that some items have a denoted keystroke combination labelled to the right of it; this is the "hotkey". "Hotkeys" (or accelerator keys) let you activate a specific function without having to navigate thorugh menus and sub-menus.

For example, to select and activate "File" then "Load" from the **control window**, you can press "Ctrl"-"L" without going through the Menu Bar selections.

Toolbar buttons are small command buttons located under the menu bar. These command buttons behave in the same manner as "hotkey" by providing a shortcut to certain menu bar selections.

#### **GIF 89a Features**

The GIF 89a format has advanced features which include animation via multiple images, plain text with variable font sizes and colors, comments, transparent images, image restores, timed delays, user inputs and users pauses. If PREVUE is configured to decode GIF images simultaneously to memory and a window (or full screen) then all these features will be enabled and decoded. Some GIF 87a files support animation via multiple images; since they have not timed delays, it will simply decode as fast as possible.

# **GIF (Graphics Interchange Format)**

CompuServe's popular graphics file format that supports multiple B&W to 256-color images. There are two versions - GIF87a and GIF89a. Both support multiple images in the same file, the latter includes additional features such as plain text, graphics control, user and timed inputs and transparency. It is pronounced as "jif".

# **AVI (Audio Video Interleave)**

AVI is the full-motion video format used with Microsoft's Video for Windows (VFW). It supports 16-color to True-color (24-bit) video frames (images) at any resolution. Video playback can vary from 1 to 30 frames per second; files are compressed with a growing variety of formats; installed VFW runtime files are required (free - download from BBSs or Windows-related forums on CompuServe).

## JPG/JIF (Joint Photographic Experts Group)

JPG files contain 8-bit gray shades or 24-bit color images and may be compressed with a variety of proprietary methods. The most common format is a non-proprietary standard created by a group of computer industry leaders - JFIF (JPEG File Interchange Format). **Only JFIF-compliant files are supported.** Compression results are quite impressive; however, as a "lossy" format, image quality can suffer significantly.

# PCX (Zsoft)

PCX files originated with Zsoft's Paintbrush program, supporting a maximum of 16-colors; this quickly became the default industry standard. The current format supports B&W to 24-bit color. Files are either uncompressed or use run-length encoding.

#### TGA (TARGA/Truevision)

TGA files were originally created to support Truevision's products; this quickly became an industry standard (particularly among video producers) due to its 32768-color format. TGA files support 256-colors, 32768-colors (16-bit), 24-bit and 32-bit color files. Files are either uncompressed or use runlength encoding. 32-bit files are essentially 24-bit files with additional overlay information; loading and saving them as 24-bit files does not lose any image information.

## **TIF (TIFF/Tagged Image File Format)**

TIFF files were originated by Aldus to handle just about any possibility. TIFF files supports B&W to 24-bit color files and uses various compression methods: uncompressed, Huffman/CCITT, Pack Bits, Group3 Fax, Group4 Fax and LZW. LZW compression may include "predictors" to further enhance compression; this method attains superior "lossless" compression of 24-bit images but takes longer to decode.

# **EPS (Encapsulated PostScript)**

EPS is a device-independent page description language originated by Adobe Systems for both text and graphics (up to 24-bit color images). EPS files may not have images to be viewed. EPS files saved with a preview image (sometimes referred to as "binary") can be viewed.

WPG (WordPerfect Graphics)
WPG is a format used by WordPerfect; it may contain vector data (graphic commands) or raster data (a bitmap with up to 256-colors); WPG files with bitmaps can be viewed.

## **BMP/DIB** (Windows Device Independent Bitmap)

The format originated with OS/2's Presentation Manager. The Windows BMP and DIB formats are actually enhanced OS/2 versions; they may be uncompressed or use run-length encoding. Although some apps expect the DIB extension, both files are the same (e.g., DIB extension is expected to import bitmaps into AVI, Video for Windows files).

# DCX (Intel)

This format is essentially a multiple-image PCX file originated by Intel to support it's multimedia line of products. The format is relatively rare and supports up to 24-bit color images uncompressed or with runlength encoding.

PCT (PICT/Apple Macintosh)
This is the most commonly supported format for Macs. It may contain vector data (graphic commands) or raster data (bitmap); supports up to 24-bit color images. PICT files with bitmaps can be viewed. Version 1 and 2 files are supported

## dithering

A technique used to "show" more colors by displaying a pattern of pixels instead of a single color. Ordered dithers have a fixed pattern of pixels; error-distributed dithering (error diffusion) uses varied patterns to enhance "perceived" color depth.

#### focus

The Windows program that is actively receiving all mouse or keyboard has input focus. Typically the app with focus has as window with a different color from the rest. In 256-color modes, this app has all its colors accurately rendered. When running multiple instance or several graphics apps in SVGA 256-color modes, click anywhere on it to set focus and restore original colors.

**multiple instances**The ability to run several copies of the same program on your desktop. Each instance is completely independent.

# palette management

The way a single 256-color palette is shared by several programs or instances in a multitasking environment. Since each instance or program has its own set of 256 colors, only the program with focus will have accurate colors; all others will have their colors matched to the the 256 colors of the program with focus.

# **WAV (Windows Waveform)**

WAV is a digitized sound format for Windows. To play digitized audio you need an audio card and corresponding sound drivers. WAV files must match your hardware; you cannot play 16-bit audio on an 8-bit sound card. The software-only driver for PC speakers does not support AVI.

# FLI/FLC (Autodesk)

FLI files were one of the first animation formats; they have no sound and are limited to 320x200x256 colors at about 10 fps; FLC files have higher resolutions. Installed MCIAAP.DRV and AAWIN.DLL files (free - download them from BBSs or from the Autodesk's Forum on CompuServe) are required. **FLI/FLC files cannot be scaled.** 

## **MID (MIDI - Musical Instrument Digital Interface)**

MID files, unlike WAV files, contain no digitized sound samples. It contains data to select instruments and play notes in a predetermined fashion. To play MIDI files, you need a sound card and corresponding MIDI drivers. Not all MIDI files can be played in Windows; **only MIDI files with instruments that match those mapped by your MIDI Mapper can be played.** 

## **Registering PreVue**

You can use the automated registration in PreVue when prompted or Select "File-Print Topic" from the menu bar to print this form.

NAME:				
COMPANY:				
STREET:				
STREET:				
CITY:				
STATE (or PROV.)				ZIP:
COUNTRY:				
PreVue 1.0 Registration Fee	(USD)		\$35.00	
Shipping/Handling if Outside of	add US/Canada	(USD)	\$10.00	
Total (C	Cheque or Mo	ney Order)		========

Make cheque payable to: Dr. Marvin Gozum

Mail to: Dr. Marvin Gozum

Two Independence Place #1105

6th & Locust Walk

Philadelphia, PA 19106 (USA)

Once received, you will be provided with a personal Serial Number that corresponds to your name, as specified above. In appreciation of your registration, you will also receive the latest version of PreVue. Please allow about 4-6 weeks to process your registration. Thank you.