



## **VidFun Index**

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## The File Browser

This File Browser appears when you (1) click the **Load toolbar button**, (2) select **File|Load** from Main Menu or (3) double-click on an open child Window. You can resize this Window to any size and adjust the width of file and directory lists via the **Column Splitter**.



From it's  Pop-Up menu, you can **Align Window Right** (for default, right-handed operation); **Align Window Left** (for left-handed operation); **Reset Window**; change the font of file and directory lists with **Window Font**.


### To Load (or Preview) Image or Multimedia Files:

1. Change desired drive, directory or filter from **Type** dropdown.
2. Highlight a filename from **Files** listbox and double-click it. You can also, click , press **<ret>** or **<Spc>** or select **Open** from the Pop-Up Menu.

To Preview graphics, set **Preview Graphics** from it's Pop-Up menu. When you double-click a filename or press **<ret>** or **<spc>**, the image is centered on screen (cropped, if necessary) and disappears after clicking it or previewing another file. All other methods of opening a file remain the same.

Note: The last eight (8) files can be recalled via **File|Recall** (from Main menu), which is updated with each new file. **PCD** (Photo CD) images are loaded at 512x768; to change resolution, select PhotoCD size from the Pop-Up menu before opening.

### To Get File Information:

1. Highlight a filename from **Files** listbox.
2. Right-click on the filename (or click  or select **Info** from the Pop-Up Menu). **JPG** file comments are included in a special information window with variable font.

### To Delete an Image File:

1. Highlight a filename from **Files** listbox.
2. Select **Delete** from Pop-Up Menu or press **<Del>**.



## Scanning, Saving or Converting Images

### To Scan an Image:

1. Optionally, select **File|TWAIN Source** to select device.
2. Select **File|Acquire** from Main Menu.

### To Save or Convert an Image File:

1. Select **File|Save** from Main Menu.
2. Change desired drive, directory or filter (format) from **Type** dropdown. (To convert file format (eg., JPG to BMP) save a loaded file to desired format. Depending on current color depth, certain file formats will be available from the Type dropdown.)
3. If saving to **CMP** or **JPG** (or JIF), click **Quality button** to set compression.

Note: CMP files have unique presets; try Perfect Quality options for small files with impressive quality. JPG files can be saved with 4:1:1, 4:2:2 or 4:4:4 YUV subsampling; 4:1:1 subsampling yields the best balance of quality and compression. If the image is greater than 1350 pixels in width, only the JPG 4:1:1 format will be available for saving.

4. Highlight a filename from **Files** listbox to overwrite or enter a new filename in the **Filename** Edit box.
5. Click **Ok button** or press **<ret>** to save.



## Printing

### To Print an Image:

1. Select **File|Print**. A print dialog box will show the current paper size, orientation, resolution (in dots per inch), and image print position on a **simulated document**.
2. Optionally, click the **Setup button** to change printer settings. The simulated document will be repositioned and resized depending on the paper and orientation selected.
3. Optionally, resize and position the image by setting the **Size Scrollbar** (10% to 100%) and **horizontal and vertical scrollbars**; a dark rectangle on the **simulated document** shows relative size and position when printed.
4. Click **Print It button**.

### Enhanced Printing

Select gray or color **Enhance** option, if image is in memory. When you click **Print It button**, choose a **dithering** method for superior gray shades or color rendition. For best results, experiment with Contrast, Brightness and Gamma adjustments with different paper types and paper settings; also, try:


- o Stevenson dithering for color and set Printer to highest resolution **without** color matching or smoothing options;
- o Jarvis dithering for gray shades and set Printer to it's highest B/W print mode, **without** smoothing options.





## Viewing Options

**Icon**    **Menu Item**


n/a    **View|Zoom** and **zoom scrollbar** adjusts zoom factor from 10% to 800%.

    **View|FullScreen** centers and fits the to full screen; clicking image or pressing **<Esc>** exits full screen viewing.

    **View|Reset Window** resets window to defaults (centered, optimized, actual view).

    **View|Optimize Window** adjusts window to minimize background borders or show as much of the image if magnified by zoom.



    **View|Fit To Window** and **View|Actual View** fit image to current window or shows actual image, respectively. The Toolbar icon changes to reflect the current viewing mode of the child window with focus.

n/a    **View|Fit Image To** provides similar Fit To Window functionality and automatically adjusts to largest possible Window given your desktop space.

n/a    **View|Image Info** display current image statistics. A Right-click on the image will also invoke the same function.

n/a    **View|Hide Toolbar** hides/shows the Toolbar for more desktop real estate.

n/a    **View|Hide Status Bar** hides/shows the Status bar for more desktop real estate.



## Editing Options

**Edit|Undo** restores a modified image.

**Edit|AutoBackup** enables or disables copying image in memory (or disk, if low on memory) prior to image processing to undo changes.

**Edit|Copy (DIB only)** copies image to Windows clipboard in Device-Independent Bitmap format.

**Edit|Copy (DIB + DDB)** Copies the entire image to Windows clipboard in DIB and Device-Dependent Bitmap format (uses more memory, but is useful for apps that require DDBs).

**Edit|Paste** copies a DIB from Windows clipboard and pastes it into a new child window.

**Edit|Empty Clipboard** clears Windows clipboard and frees more memory.

**Edit|Mask|Select** marks a rectangular area in an image for subsequent cropping.

**Edit|Mask|Clear** clears selection mask for current child window.

**Edit|Crop** copies image portion bounded by selection mask and creates a new child window.



## Image Filters, Resizing & Rotation

The following menu options present an **Image Process Dialog** for experimenting with different settings on a sample (or area of interest) before changing the whole image.

**Image|Smooth** filters render a smoother (albeit, more blurred) appearance. Despeckle option is particularly useful for removing noise from *dirty* images.

**Image|Sharpen** filters render a sharper image using edge enhancement techniques.

**Image|Enhance Edges** highlight only the edges of the images.

**Image|Special Filters|Posterize** quantizes (reduces color depth) of the image.

**Image|Special Filters|Mosaic** replaces neighborhoods of pixels with one pixel representing the average of the neighborhood.

**Image|Special Filters|Emboss** applies edge enhancement techniques and a bias.

**Image|Resize** resamples the image to any rectangular specification. Select from preset image sizes, or custom Width and Height pixel parameters (or percentages). Aspect ratios can be either maintained or distorted.

**Image|Flip** mirrors the image (Horizontal Flip) or inverts the image (Vertical Flip).

**Image|Rotate** renders one degree rotations as well as preset 90, 180 and 270 degree rotations.

**Image|Split RGB** separates 24-bit (True color) images to Red, Green and Blue components for subsequent, independent manipulation. RGB components are represented as gray image. This option is disabled if image uses **disk-based memory**.

**Image|Combine RGB** creates a 24-bit image from RGB components (eg., combining separate RGB scans for wide color range). This option is disabled if image uses **disk-based memory**.



## Color Processing & Conversion

See also [Image Filters](#)

The following menu options present an **Image Process Dialog** for experimenting with different settings on a sample (or area of interest) before changing the whole image.

**Color|Tune All Colors** adjusts the Hue, Saturation, Brightness and Contrast of the image.

**Color|Gamma Correction** adjusts **gamma** factor for all color channels or individual Red, Green and Blue channels. This option is disabled if image uses **disk-based memory**.

**Color|Adjust Brightness** adjusts brightness level for individual Red, Green and Blue channels (RGB Model) or Cyan, Magenta and Yellow channels (CMY Model). This option is disabled if image occupies **disk-based memory**.

**Color|Adjust Contrast** adjusts contrast level for individual Red, Green and Blue channels (RGB Model) or Cyan, Magenta and Yellow channels (CMY Model). This option is disabled if image uses **disk-based memory**.

**Color|Equalize** evenly spreads the color distribution to enhance contrast.

**Color|Negative** creates a negative image similar to photographic film.

**Color|Gray Shades** converts any image to true, 256 gray shades.

**Note:** A gray appearance does not confirm presence of true gray scale; use this function to ensure true gray scale for combining RGB channels. Right-click on the image or select **Image|Info** to find out if image is true gray scale

**Color|Promote Colors** boosts color depth up to 16M colors.

**Color|Convert to 32K colors** converts color depth from 16M to 32K colors.

**Color|Convert to 256 colors** decreases color depth of 32K and 16M-color images to 256 colors. Use **Best Method** for optimal results or select **[Optimized or Fixed] Palette Methods** to choose dithering method via **Image Process Dialog**.

**Color|Convert to 16 colors** decreases color depth of 256, 32K and 16M-color images to 16 colors. Use **Best Method** for optimal results or select **[Optimized or Fixed] Palette Methods** to choose **dithering** method via **Image Process Dialog**.


**Color|Convert to BW** decreases any color image to Black & White. Use **Best Method** for optimal results or select **User Methods** to choose dithering method via **Image Process Dialog**.





## Video Window

The Video Window plays **AVI** and **MOV** video (it should also play **MPG** files if you have the corresponding MCI driver). Just click the play button to play the video file; when playing the pause button appears. After playing, the rewind button appears. To view specific frames, use the **video scrollbar** to jump to any frame, reverse one frame, or advance one frame.

The Video Window is resizeable and automatically corrects the aspect ratio. It also sports many features available from its Pop-up Menu. This Pop-Up window can be accessed by clicking  (Menu button) or right-clicking the Status bar.

**Zoom Window** doubles, triples or quadruples the Video Window size.

**Optimize Window** adjusts window to minimize background borders.

**Video Status Bar** hides/shows the Status bar.

**Status Update** adjusts how often the **video scrollbar** 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, keep default of "1:1 second" on a 386.

**Configure Video** activates the standard configuration screen. Full Screen playback is supported. For MOV files, loop and reverse loop are also supported.

**Playback Options** lets you change the playback speed and volume. Note: AVI video does not seem to support volume control with current drivers).

**Quiet Playback** sets audio playback on or off.

**Loop Playback** replays the video file indefinitely (until paused or closed). This feature is missing with AVI files and adds that functionality. MOV files already have it their video configuration.

**Play** and **Pause** are menu equivalents of video control buttons (for those that prefer menus and accelerator keys).



## Multimedia Windows

Multimedia Windows are subsets of the Video Window and are all alike. These are used for WAV, MID, and **FLI** (FLC, FLX) playback. Just click the play button and it will play the animation or audio file; when playing the pause button will appear. After playing, the rewind button will appear. To move to a specific *frame* (in milliseconds for audio, actual frames for animation), use the scrollbar to jump to any *frame*, reverse one *frame*, or advance one *frame*.

**You can play all these devices at the same time!** The only restriction is the playback of one file per device. One animation, **WAV** and **MID** device can all be open at the same time, including the Video Window. Playing a WAV file before playing **AVI** or **MOV** video will supercede it's audio track. If audio is playing from AVI or MOV video, then WAV playback will not be heard. MIDI music will always be heard no matter what is playing.

**Loop Playback** button automatically replays the animation, audio or music file indefinitely (until you pause or close the Multimedia Window).



## Multimedia Slideshows

There are essentially three *tracks*: graphics, audio and video. WAV or MIDI music plays independently until assigned a new audio file or a video file with audio takes over. Graphics (eg., JPG) can overlap with various effects and remain as a background for video or animation.

Select **File|Slideshow** for the Slideshow Dialog. It is a simple spreadsheet with pop-up menus assigned to each cell. Each row represents a slide; rows can be moved around by dragging and dropping the fixed column of selected row to a new position. Columns can be adjusted by resizing the fixed row. To modify a cell, double-click it or press **<spc>** when it has focus.

### Individual Slide Parameters

- o **Filename** is graphics, video or audio file. It's full pathname appears underneath the dialog title. When activated, you can add a slide via the standard Open File dialog.
- o **Clr** [Yes or No] determines if background is cleared with a specific color; you can choose a standard or custom color via Color Dialog; actual color appears in a box beside command buttons, whenever row has focus. This option does not apply to audio files.
- o **Effect** assigns one of 21 display effects to graphics files. For video and animation, it determines how many times to loop playback.
- o **Wait** (seconds) adds a delay to the end of a slide. **WAV** and **MID** (music) files keep playing without a delay; add a wait if next slide is another audio or video file with sound. If next slide is video file with sound turned off, audio is not interrupted.
- o **H Pos** and **V Pos** assigns the leftmost and topmost position of graphics or video file (in pixels). The default (Mid) centers the image and resizes to fit the screen, if necessary.
- o **Vid%** assigns a zoom factor for video files.
- o **Vol%** assigns a volume factor for video files. Setting volume to zero turns it off.
- o **Spd%** assigns a speed factor for video files.

**Add Slides button** activates an Open File dialog with multiselect capability. A range of files can be selected and appended to your script. You can rearrange the order by dragging and dropping the fixed column of selected row (slide) to a new position.

**Delete Slide button** deletes the current row (slide).

**New Script button** creates a new script.

**Open Script button** loads a saved AVL file.

**Save Script button** saves script to an AVL file.

**Test Script button** plays the currently loaded script.



## Supported File Formats

VIDFUN supports the following file formats:

**AVI**(load only)  
**AVL**(load/save)  
**BMP**(load/save)  
**CAL**(load/save)  
**CMP**(load/save)  
**DIB**(load/save)  
**FLI**(load only)  
**FLC**(load only)  
**JIF**(load/save)  
**JPG**(load/save)  
**MID**(load only)  
**MOV**(load only)  
**PCX**(load/save)  
**PCD**(load only)  
**PCT**(load/save)  
**TGA**(load/save)  
**TIF**(load/save)  
**WAV**(load only)



## Questions & Answers

- Q. [How can I import unsupported graphics formats?](#)
- Q. [Why is my image grainy?](#)
- Q. [Why can't I run AVI or MOV movies?](#)
- Q. [Why can't I run FLI animation?](#)
- Q. [Why can't I play WAV or MID \(MIDI\) files?](#)
- Q. [Why is video or animation playback jerky?](#)
- Q. [Why is video playback silent?](#)



## Questions & Answers (Video)

**Q. Why can't I run AVI or MOV movies?**

**A.** You must have the Video For Windows runtime drivers installed in Windows; download the drivers from BBSs or online services (eg., CIS, AOL, GEnie ...); search using "VFW" as a keyword. Apple Quicktime MOVie playback requires the Quicktime for Windows (QTW) drivers (see README.WRI).

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

**A.** You must have the AAWIN.DLL and MCIAAP.DRV files installed in your Windows environment. At CIS, GO ASOFT and download NEWPLA.ZIP; at GEnie, download AAWIN11.ZIP from Cyberspace RT; or, search for "AAWIN" or "AAPLAY" at BBSs.

**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 **WAV** and stereo files cannot play on 8-bit and mono sound cards, respectively, without appropriate emulators). Also, only **MID** files with matching instruments mapped by your MIDI Mapper can be played.

**Q. Why is video playback silent?**

**A.** Playback of AVI or MOV files with sound requires a sound card and Windows driver capable of hardware-assisted **WAV** playback. **Some file video files do not have audio.**

**Q. Why is the video or animation playback jerky?**

**A.** Make sure your video or animation files are placed on an uncompressed hard drive; decompression drivers interfere with smooth playback. 160x120x256 video files running at 15 fps (or less) should run smoothly on an 386/33; beyond that you need a fast computer and/or video accelerator for smoother playback.



## Questions & Answers (Graphics)

**Q. How can I import unsupported graphics formats?**

**A.** If other Windows apps can decode it, *copy* it to the Windows clipboard then select **Edit|Paste** and it will be imported into VidFun. You can also use other apps to convert the unsupported graphics format to one of VidFun's [supported format](#).

**Q. Why is my image grainy?**

**A.** What you see is [dithering](#) which is automatically applied when viewing with a video mode that is less than the image file's color depth (eg., 16M-color JPG file on a 256-color video mode). The image in memory is unaltered, only the display is affected.

## **Image Process Dialog**

VidFun's common interface to most image processing functions. It includes a fitted 256 x 256 sample image which can be zoomed to show an actual area of interest. It facilitates liberal experimentation on a small sample before committing changes to entire image.



**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 and are compressed with a growing variety of algorithms. Installed VFW runtime files are required (see README.WRI).

## **MOV (Quicktime for Windows MOVie)**

MOV is the full-motion video format of Apple Computers originally designed for the Mac; it can be used in various PC/Windows applications via Apple's Quicktime for Windows (QTW) adaptation. Although similar to the AVI video format, QTW driver behavior varies widely with video hardware. Video files are compressed with a growing variety of algorithms; installed QTW runtime files are required (see README.WRI).

**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 common, non-proprietary JFIF standard (JPEG File Interchange Format) is supported. As a "lossy" format, the optimal compromise between file size and image quality requires iterative experimentation.

**MPG (Motion Pictures Experts Group)**

MPEG video is supported via MCI (Media Control Interface). This requires a specific driver from the card's manufacturer and is not widely available. At this writing, less than a handful have included MCI support. There are several MPEG standards; MPEG-1, MPEG-2, MPEG-4 and numerous proprietary variants (eg., motion JPEG). On the upside, it plays full screen video smoothly with matching hardware. If Media Player can play it, so will VidFun.

**CAL (CALS)**

CAL files are based on CCITT, G4 B/W 'fax-like' format. It is commonly used by U.S. Government offices.

**CMP (LEAD CoMPressed)**

CMP files use a proprietary *JPEG-like* format with superior quality and compression. Try the Perfect Quality preset options for compressed images that are virtually indistinguishable from lossless formats and significantly smaller than minimally compressed JPG files. There is a 1350 pixel width limitation in this version, but can be saved with heights up to 32767 pixels (if memory permits).

**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)**

Although, originally created for Truevision's products, this format quickly became an industry standard due to its 32768-color format. TGA files support 256-colors, 32768-colors (16-bit), 24-bit and 32-bit color files. Files are uncompressed or use run-length 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; VidFun supports uncompressed, Huffman/CCITT, Pack Bits, Group3, and Group4 TIFF files.

**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.

## **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. Some PCT files have an imbedded copyright notice in the middle of the file which triggers an error.

**PCD (Kodak Photo CD)**

An exciting true-color (24-bit) image format from Kodak, composed of Image Pacs on CDROM; these are actually several image resolutions of the same picture (i.e., 64x96, 128x192, 256x384, 512x768, 1024x1536 and 2048x3072). The 2048x3072 resolution is displayed with 256 colors on 256-color displays.

**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.

### **disk-based memory**

Images that exceed 16Mb (Windows' memory object limit) or require more contiguous memory than available, reside on disk and are processed several lines at a time. Although slow, it lets you see *impossible* images and apply most image processing methods. If more free memory is available, try **Window|Change Memory** to convert into Windows memory. **Window|Compact Memory** defrags global memory to free more contiguous memory.

## **WAV (Windows Waveform)**

WAV is a digitized sound format for Windows; an audio card and corresponding drivers are required.

**WAV files must match hardware; you cannot play 16-bit audio on an 8-bit sound card.** The software driver for PC speakers is not supported.

### **FLI/FLC/FLX (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 (see README.WRI) are required. **FLI/FLC files cannot be scaled.**



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

MID files contain data to play selected instruments and notes in a predetermined fashion; a sound card and corresponding MIDI drivers are required. **Note: Only MIDI files with instruments that match those mapped by your MIDI Mapper are played.**

## **AVL (VidFun's Audio/Video playList)**

AVL files are plain text files that act as a script for Multimedia Slideshow presentations. It's syntax is similar to Windows \*.INI (initialization) profile files. You can use text editors for *global search and replace* functions on filenames, but should always use the Slideshow Editor to edit individual slide parameters.

## **Gamma Correction (Tonal Quality)**

The brightness level of midtones (technically, the slope where density is linearly proportional to logarithmic exposure). Adjust this to see more midtones (eg., flesh tones) with minimal change to contrast and brightness settings.

## Registering VidFun

You can use the automated registration in VidFun 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:

EMAIL:

VidFun Registration Fee

\$35.00 (USD)

or  
\$45.00 (CND;

GST incl.)

Outside USA or Canada  
add shipping/handling

\$10.00 (USD)

(Cheque or Money Order drawn on

US or Canadian bank) .....TOTAL =====

Make cheque payable to: Applied Insights

Mail to: Applied Insights

100 Oriole Parkway #310

Toronto, Ontario M5P 2G8 (Canada)

Attn: Lawrence Gozum

If you don't know the postage from the USA, simply stick two domestic stamps and it will arrive.

Once received, you will be provided with a personal Serial Number that corresponds to your name, as specified above; **your S/N is valid for ALL VidFun 1.x versions**. In appreciation of your registration, you will also receive the latest version of VidFun. Please allow about 4-6 weeks to process your registration. Thank you.



