

## Versions 3.0c-S (shareware) and 3.0c-R (registered/retail)

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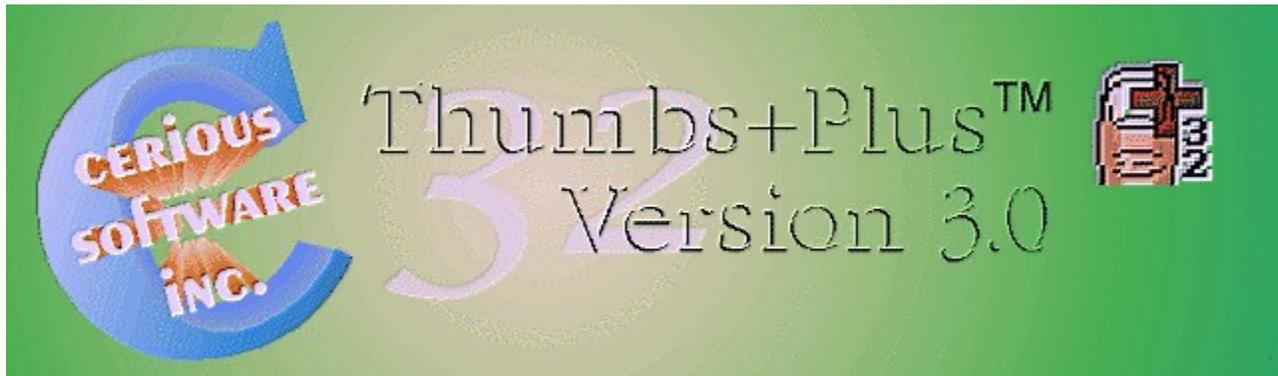
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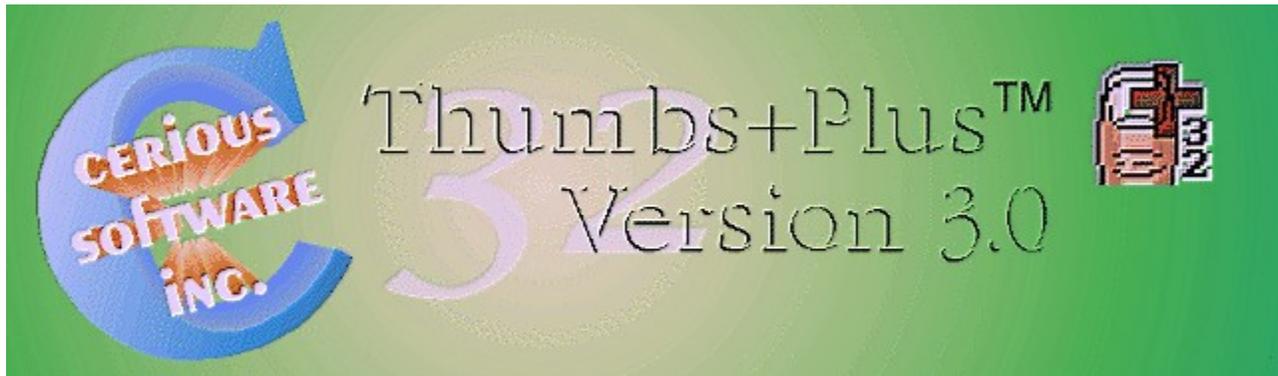
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## Introduction



**ThumbsPlus** is a graphic file viewer, locator and organizer which simplifies the process of finding and maintaining graphics, clip-art files, fonts and animations. It displays a small image (thumbnail) of each file. You can use ThumbsPlus to browse, view, edit, crop, launch external editors, and copy images to the clipboard. You can use drag-and-drop to organize graphics files by moving them to appropriate directories. ThumbsPlus will also create a slide show from selected graphics, and install bitmap files as Windows wallpaper.

You can print individual graphics files, or the thumbnails themselves as a catalog. ThumbsPlus can convert to several formats, either one at a time or in batch mode. You can also perform image editing in batch mode. ThumbsPlus will also convert metafile graphics to bitmaps (rasterize).

ThumbsPlus can process dozens of file types internally. [Here's a comprehensive list](#) and details on each format.

You can also use Object Linking and Embedding (OLE) to create thumbnails for and view any proprietary file type for which the server application is loaded on your system.

## New Features in Version 3.0 - 3.0c

Please see the Release Notes for more detailed information on 3.0b and 3.0c changes.

(R) *Registered version only.*

(N) *Network (concurrent user) license only.*

(C) *Added in version 3.0c.*

- ThumbsPlus version 3.0 is a 32-bit application for Windows 95, NT and 3.1/3.11 (using Win32s).
- Several new file types are supported:
  - PNG: PiNG format (read/write)
  - UUE: uuencoded files (read and decode)
  - AVI: Windows animation (now supported in the shareware version)
  - MOV: Macintosh animation (now supported in the shareware version)
  - CUR, ANI: Windows cursors (thumbnail only, Windows 95/NT 4 only)
  - (C) FIF: Fractal Compressed files (Iterated Systems, Inc.).
  - (C) STX, ST5, ST6, ST7, ST8: Santa Barbara Instruments Group.
  - (C) KIZ: Kodak Digital Postcard images.
  - (C) DCX: Multi-image PCX files.
  - (R) PFB: Adobe Type 1 fonts.
  - (R) DXF: AutoCAD Exchange format.
  - (R) MPG: MPEG compressed video.
- Improvements handling several file types:
  - GIF: Transparency is supported (read and write).
    - (C) Animated GIF files may be played.
  - JPEG: Progressive mode is supported (read and write).  
CMYK colorspace files can be read.
  - PSD: Photoshop version 3 files are supported.
    - (C) CIE L\*a\*b colorspace is supported.
  - TIFF: JPEG and ZIP compressed TIFFs are supported.
    - (C) Multi-page TIFFs are supported.
    - (C) CIE L\*a\*b colorspace is supported.
  - RAS: Bi-level SUN Raster files may now be read.
- Version 3.0 incorporates a new database format, which provides:
  - Keyword assignment and searching.
  - Automatic keyword assignment based on file type, file name, and file color characteristics.
  - Long file name support (except on Windows 3.1/3.11).
  - Selection of thumbnail size and color depth (32 gray levels, 236-color palette, or 15-bit high color).
  - Improved disk volume recognition (especially for network and CDROM drives), and assignment of volume aliases.

File annotations (comments in the database).

- ThumbsPlus can now read image files larger than 16Mb (except on Windows 3.1/3.11).
- Improved display speed and memory usage for large files. For some file types, ThumbsPlus will also view while loading a file.
- Contact sheets (showing parts or all of a thumbnail catalog in a graphic file) with many configuration options.
- Improved OLE client support.
- Color selection for directory list folders and various other user interface elements.
- Toolbar improvements:

Customizable main window toolbar

View window toolbar (also customizable)

Tool tips for buttons on toolbars

- View window status line.
- Reorganization of menus for ease-of-use.
- Addition of right-button menus (context menus).
- Use of property sheets (tabbed dialog boxes) to simplify adaptation of the program to your needs.
- (R) Shows ZIP files as directories, which can be browsed, and the files in the archive may be treated as regular files.
- (R) 32-bit TWAIN scanner support.
- Improved algorithms and 32-bit code result in faster image manipulation and conversion.
- You may now delete directories and entire directory trees.
- ThumbsPlus can use the Windows 95 Recycle Bin for deleting files if selected in Options | Preferences • General.
- (C) ThumbsPlus now supports multi-image files (TIFF or DCX). You can use **Edit menu** options in a view window to switch between pages, or to split the pages into separate images.
- (C) You can manage files from the view window; for example, the Space and Backspace keys (or File | Next file and File | Previous file) will display the next or prior file in the current directory. There are also menu selections and keystrokes to copy, move, rename and delete the current file.
- Improved network support:
  - ThumbsPlus can better recognize and differentiate between network drives. It uses the connection information rather than the drive letter to match database thumbnails with their corresponding network files.
  - (N) Network user program defaults can be set up in a THUMBS.DEF file in the

network directory with ThumbsPlus.

- (N) ThumbsPlus may be installed on and run from a network drive, and the database may be shared on a network. (Single-user licenses will not operate on a network).
- (N) Network database defaults can be set up in a THUMBS.TDD file in the directory with the database.

## Thanks To...

Many thanks to everyone involved in the development and testing of ThumbsPlus. I would like to offer special recognition to:

**Cricket, Adam, Rachel, Leah and Evan Crews**, my wife and children, for putting up with me during the continuing development of ThumbsPlus.

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**Hugh McArtan**, for his late nights spent giving good advice and answering thousands of e-mail messages.

**Chuck Crews**, brother and president of **catalogue.com**, who has maintained our World Wide Web server and tuned it to handle the flood of hits and downloads.

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**Tom Lane and the Independent JPEG Group**. Many thanks for routines that are well-written, easy to understand, straightforward to implement, and were simple to integrate into ThumbsPlus.

**Ray McVay** and **Mike Edgerton**, of '**Go Graphics**' for their continued support for ThumbsPlus. Thanks to Mike also for the diverse icons you have to choose from. (Select Properties from the File menu in Program Manager, then click on Change Icon to see them!)

The other members of the '**Go Graphics**' Group who have also supported and encouraged us: **Curt Bradshaw, Matt Drury, Bruce Herzog, Rollie Jones, Richard Lindner, John Parker, Tom Potocki, Tom Price, Charlotte Smith, John Swenson, Howard Thue, Larry Wood** and more.

Our overseas shareware and retail distributors: **Pat O'Sullivan** (Australia and New Zealand), **Kenji Hino** and **Mr Nakamura** at Village Center (Japan), **Patrick Hochner** at P&A Shareware (Japan), **Hans Fremuth, Jupp** and **Franz Grieser** at Kelly Data (Germany), **Gerd Zottelein** at PD Profi (Germany), **Nick Thompson** at The Thompson Partnership (UK), **Daniel van Rooijen** at CopyCats (Netherlands, Belgium).

Other people who have greatly encouraged or influenced ThumbsPlus: **Joel Diamond, Ed Hoffman, Pat O'Sullivan, David Hanna, Brian Priebe, Ralph Mariano**.

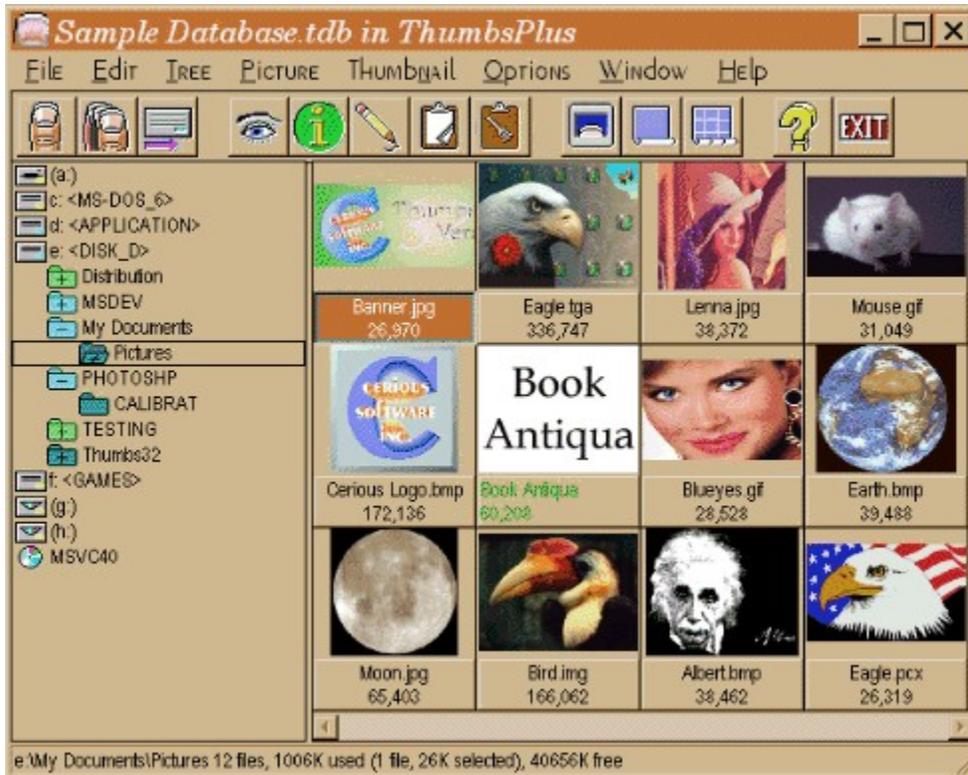
All of the beta testers, without whom many more bugs would have made it into the released product.

But, the most thanks are due to **you**. Without your dollars and support, we couldn't continue this interesting adventure!

# Program Operation

## Getting Started

The main window consists of the normal Windows interface (title bar, menus, etc.) and three functional areas, as shown below:



*Click on the picture above (anywhere the cursor becomes a hand) to find out about the various parts of the display.*

### Additional information:

The toolbar provides short-cuts to several frequently-used commands.

The **directory list** displays disks and directories from which you may select a directory to display. Unless disabled from the Tree menu, directories are color-coded to indicate the presence of previously "nailed" images:

Selecting a directory works much like the Windows File Manager; most operations and menu short-cuts work similarly, and you can drag-and-drop selected files to move or copy them to different directories and drives.

When you select a directory from the **directory list**, file names (and thumbnails, if generated), display in the file list.

You may select one or more files from the file list, then take action on the selected image(s) from the toolbar or menus.

You may also drag the selected files to a new directory or disk.

### ***Directory Color Codes***

If the option to Indicate Thumbnails is on from the Tree menu, each directory folder is colored to indicate the presence of thumbnails on the path.

You may select the desired colors for folders using Options | Preferences • Colors.

### ***Selected File***

The captions (file names) of selected files are highlighted. Some toolbar and menu options will be grayed if no files are selected.

### ***mainScrollbar***

A scrollbar allows you to select the part of a list of items you want to display, when all of the items will not display in the area. For vertical scroll bars, click on the left and right arrows to move a column at a time; for horizontal scroll bars, click on the up and down arrows to move a line at a time.

You can drag the box to move proportionally within the scrolled data; you can click on either side of the box to move a full window of information at a time.

### ***Selected Directory***

The currently selected directory in the directory list is highlighted. This is the directory that contains the files in the file list.

### ***Disk, Volume and Folder Icons***

All disk drive in your system and all removable disks (floppies and CDROMs) that you have scanned for thumbnails are represented by small icons in the directory list.



Removable diskette, such as 3.5" and 5.25" floppies.



A local, fixed hard drive.



A network (remotely mounted) drive.



A CDROM drive.



A memory (RAM) disk, used only for temporary storage.



An off-line CDROM which has been scanned for thumbnails. You can view the thumbnails without having to insert the CDROM.



An off-line floppy or removable drive which has been scanned for thumbnails. You can view the thumbnails for these volumes without having to insert the floppies.



A network drive that was previously mapped but is not currently available.



(R) A ZIP file that is scanned like a directory by ThumbsPlus (based on the setting for Tree | Zip Files as Directories).

### ***Disk Labels***

Every disk or diskette used in DOS and Windows can have a volume label. If you want to keep track of files on multiple disks, it will be much less confusing (to you and to ThumbsPlus) if each disk is labeled uniquely. ThumbsPlus will use serial numbers instead if they are present. For read-only media (such as CDROMs), ThumbsPlus will synthesize a name based on the first character of all files in the root directory if it has neither a serial number or a label.

### ***Vertical Split Bar***

The cursor will change when over this area. You can press the left mouse button and drag the split bar to the desired position, so the directory and file lists are the sizes you want.

### ***Maximize***

This button maximizes ThumbsPlus (resizes it to fill the screen). You can click this button again to restore ThumbsPlus to its previous size.

### ***Minimize***

This button minimizes ThumbsPlus (reduces it to an icon). You can double-click the icon to restore ThumbsPlus.

***Title Bar***

This caption shows the current program (ThumbsPlus in this case), along with the file it has open.

### ***System Menu***

Selecting this button brings down the standard Windows system menu, from which you can move, size, restore, minimize, maximize, or close ThumbsPlus. You can also bring up the Task List (with the Switch To option) to switch to another application in Windows.

### ***Status Line***

The status line shows information about the currently selected drive, directory and files. It also shows the number of files in the directory.

When dragging to a directory, the text in the status line will turn red if there is insufficient space to copy the selected files.

When selecting from a menu or passing the mouse over toolbar buttons, a description of the action appears on the status line.

The status line may be turned on or off using the Window | Status Line menu selection.

## Standard Dialog Boxes

Several dialog boxes are used in various places throughout the program, including:

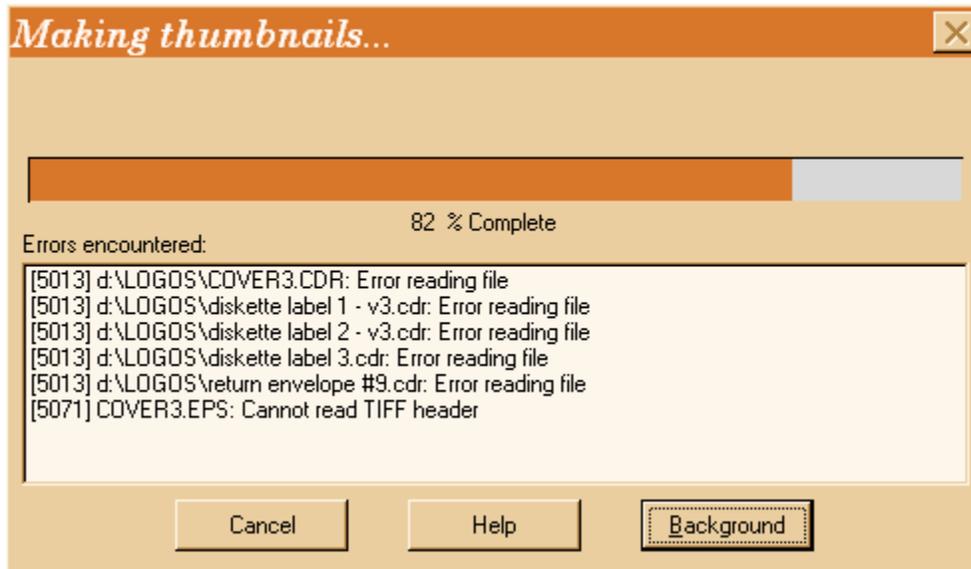
Progress

Browse

Confirm

Confirm File Replacement

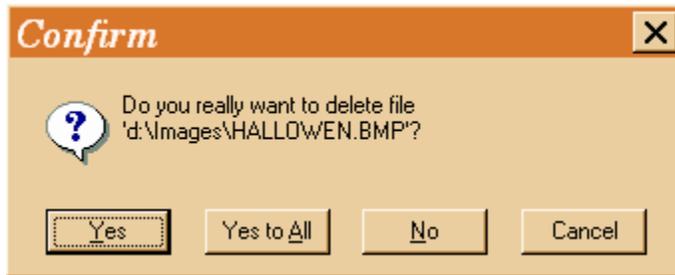
## Progress Dialog Box



ThumbsPlus displays this dialog box when doing something that may take a while, or when processing multiple files. Any errors that occur display in the **Errors Encountered** area. For most operations, a **Cancel** button is available that will cancel the operation in progress. There is also a **Background** button which will minimize ThumbsPlus so that you can easily switch to another application. The title bar shows the activity in progress; directly below this appears additional information about the progress, such as the current directory or file name. There is also a percentage complete indicator (both numerical and graphed).

To receive more information about any error in the list, select it and then click the **Help** button or press F1. The error codes are also listed in this document.

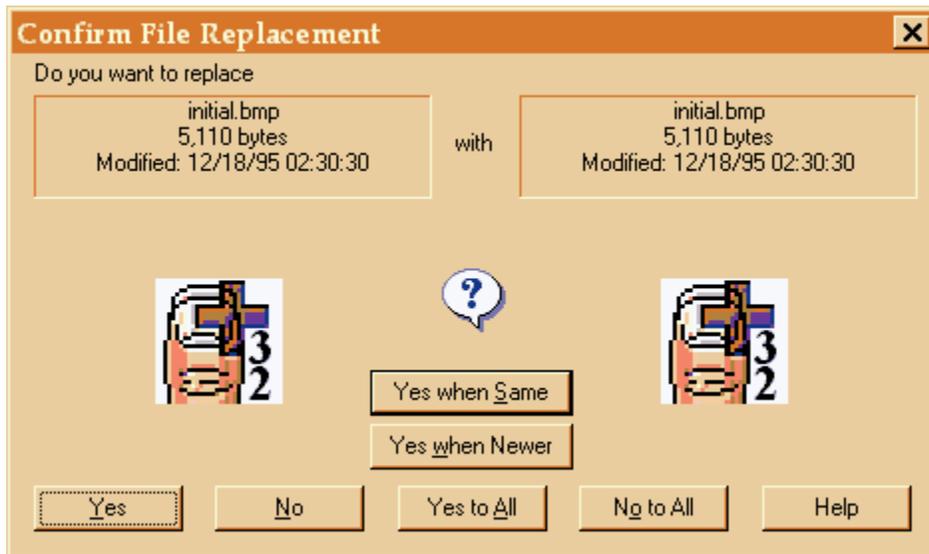
## Confirm Dialog



The Confirm dialog box displays whenever you perform a function that is set up to be confirmed; you may configure which actions require confirmation using the Options | Preferences • Confirmations dialog box. There's a convenient **Yes to All** button which allows you to avoid confirming each operation individually.

When a file would be replaced by an move or copy *and* confirmation for overwriting files is turned on, the Confirm File Replacement dialog will be used instead.

## Confirm File Replacement



When a file move or copy operation would overwrite a file with the same name as the file being moved, ThumbsPlus will display this dialog box. Information and thumbnails (if available) for both the original and new files are shown.

The buttons available are:

**Yes.** Replace the original file with the new file. Keep asking if there are any more replacements.

**No.** Don't replace the original file with the new file. Keep asking if there are any more replacements.

**Yes to All.** Replace this original with the new file, and also replace any other duplicates that are encountered.

**No to All.** Do not replace this original, and do not replace any other duplicates encountered.

**Yes to Newer.** Replace this original *and* replace any other duplicates found *as long as* the file being moved is newer than the original. Files older than the originals will be skipped (and noted in the Progress box).

**Yes to Same.** Replace this original *and* replace any other duplicates found whenever the files are identical. Files that are different will be skipped.

## Browse Dialog



Whenever ThumbsPlus requires a directory path, you can click on the **Browse** button to bring up this dialog box. From it, you simply select the desired directory path. ThumbsPlus also remembers the last place selected for each operation and initializes the dialog box for that directory. Some of the functions for which the Browse dialog box are available are:

File | Copy

File | Move

Picture | Batch Convert/Edit

Edit | Automatic Clipboard Save

Thumbnail | Contact Sheets

## Toolbar

This is the default toolbar supplied with ThumbsPlus. You may customize the toolbar to your taste using [Options | Customize Toolbar](#).

*Click on any button below to see a description of its action.*



## Selecting Files

You select files from the **file list** (the area of the screen with thumbnails) by using the mouse or keyboard.

### Using the Mouse to Select Files

You can use a mouse to select a file or group of files. Before you can select files, they must be visible in the **file list**.

#### *To select a file:*

Click the filename or thumbnail.

#### *To select multiple items in sequence:*

1. Click the first file you want to select.
2. Press the SHIFT key while you click the last file to select.

#### *To select two or more file out of sequence:*

Press and hold CTRL while you click on each file.

#### *To cancel the selection of a file:*

Press and hold CTRL while you click the selected file.

### Using the Keyboard to Select Files

You can use the keyboard to select a file or group of files. Before you can select files, they must be visible in the file list.

#### *To select a file:*

Use the following keys to select a file or directory.

<b><u>Press</u></b>	<b><u>To select</u></b>
Up, Down	A file above or below the current selection.
End	The last file in the list.
Home	The first file in the list.
PageUp	The file at the top of the previous screen.
PageDown	The file at the bottom of the next screen.

#### *To select two or more items in sequence:*

1. Use the up or down arrows to move to the first file you want to select.
2. Press and hold down SHIFT while you select the remaining files.

#### *To select two or more items out of sequence:*

1. Use the arrow keys to move to the first file you want to select.

2. Press and release Shift+F8. The selection cursor begins to blink.
3. Move to the next file you want to select.
4. Press the SPACEBAR to select each file.
5. Press Shift+F8 when you finish selecting files.

***To cancel the selection of a file:***

1. Press and release Shift+F8 so that the selection cursor begins to blink.
2. Move to the selection you want to cancel, and then press the SPACEBAR.
3. Press Shift+F8 when you finish canceling selections.

## Supported File Types

The list below shows the file types that ThumbsPlus supports. Items marked with (R) are available in the registered (-R) version only.

<u>.AVI</u>	Video for Windows files
<u>.BMP,.DIB,.RLE</u>	Windows Bitmap files
<u>.CDR,.PAT,.BMF</u>	CorelDRAW, CorelGALLERY
<u>.CEL</u>	AutoDesk Animator CEL files
<u>.CGM</u>	Computer Graphics Metafile (binary encoding)
<u>.CUR,.ANI</u>	Windows Cursor files
<u>.DCX</u>	Multi-image PCX files
<u>.DXF (R)</u>	AutoCAD Exchange format files
<u>.EPS</u>	Encapsulated Postscript files (preview image only)
<u>.FIF</u>	Fractal image files (Iterated Systems, Inc.)
<u>.GEM</u>	GEM Metafiles
<u>.GIF</u>	CompuServe Graphics Interchange Format files
<u>.ICO</u>	Windows Icon files
<u>.IFF,.LBM</u>	Amiga IFF format
<u>.IMG</u>	GEM Image format
<u>.JPG,.JFI,.JIF</u>	JPEG compressed files (in JFIF format)
<u>.KDC</u>	Kodak DC40, DC50 digital camera native files
<u>.KIZ</u>	Kodak Digital Postcard files
<u>.MID</u>	Windows MIDI files
<u>.MND,.MNI</u>	Mandelbrot for Windows image files
<u>.MOV</u>	QuickTime Movies
<u>.MPG (R)</u>	MPEG compressed movies
<u>.PCX,.PCC</u>	ZSoft Picture files
<u>.PCD</u>	Kodak PhotoCD files
<u>.PFB (R)</u>	Adobe Type 1 Font files
<u>.PNG</u>	PiNG format files
<u>.PSD</u>	Adobe Photoshop files
<u>.RAS,.SUN</u>	Sun Raster format
<u>.RAW</u>	Raw grayscale or RGB images
<u>.STX, .ST5, .ST6, .S T7, .ST8</u>	Santa Barbara Instrument Group (SBIG) files
<u>.TGA,.WIN</u>	Targa Truevision™ files
<u>.TIF</u>	Tagged Image Format files
<u>.TTF,.TTR</u>	TrueType fonts
<u>.UUE</u>	UUencoded files
<u>.WAV</u>	Windows sound files
<u>.WMF,.MF</u>	Windows Metafiles and Placeable Metafiles
<u>.WPG</u>	WordPerfect graphics files

**AVI: Video for Windows**

AVI is the standard Windows video format.

The registered version of ThumbsPlus supports playing, viewing, and thumbnailing (any frame) of Video for Windows files.

On Windows 3.1, Video for Windows version 1.1d or later must be installed to play AVI files.

## **BMP, DIB, RLE: Windows Bitmaps**

This is the standard bitmap format supported by Microsoft Windows. ThumbsPlus supports all color depths (1, 4, 8 or 24 bit), and the compressed (RLE) formats for 4-bit (RLE4) and 8-bit (RLE8) bitmaps.

The standard VGA driver does not properly decompress 8-bit compressed BMP files; for best color viewing (and nicest thumbnails), you should load a 256-color or higher Windows video driver, which should eliminate this problem.

On Windows 3.1, some proprietary 8-bit drivers do not properly decompress 4-bit compressed files, though the situation is always improving, and this problem is becoming much less common.

ThumbsPlus currently writes only uncompressed BMP files.

## **CDR, PAT, BMF, CMD: CorelDRAW and CorelGALLERY**

ThumbsPlus can create thumbnails for CDR, PAT and BMF files; however, it can only extract the preview bitmap from them. There is no internal support for the proprietary Corel format.

If you have Corel, you can set up CDR and PAT files for external OLE support (using the File Type Configuration dialog box), which will allow you to create much nicer thumbnails for them. However, the price is high: Corel is a very slow OLE server, so it takes much longer to create the thumbnails.

Corel files may also be viewed, printed, or copied to the clipboard as metafiles using the OLE support.

CorelGALLERY files (.BMF) can be viewed and thumbnailed via OLE also, as long as the Corel Gallery program itself is installed. As with the CDR files, OLE is considerably slower than the internal bitmap support.

**CEL: AutoDesk Animator Cel Files**

ThumbsPlus supports both the earlier and newer versions of .CEL files. The later version is a single-frame .FLC file.

## **CGM: Computer Graphics Metafile**

CGM files are vector graphic files useful as clipart. They scale well, and have the distinction of being the *only* ANSI standard graphic format. There are many flavors of CGM files; ThumbsPlus supports the most popular for PCs (binary encoding), with the following limitations:

- Embedded cell arrays (bitmaps) are not supported.
- New (version 3) extensions, such as Bézier curves, are not supported.
- Font support is incomplete
- Rotated (non-orthogonal) ellipses and elliptical arcs are not correctly rendered.
- Hatches are rendered with the closest hatching format available from Windows.

**CUR, ANI: Windows Cursor files**

ThumbsPlus can create thumbnails for CUR and ANI files, though no viewing support is currently available. *These files are supported only on Windows 95 and Windows NT 4.0.*

**DCX: Multi-image PCX files**

The DCX format is a multi-page format for PCX files, generally generated by fax software. In particular, Intel's fax software produces DCX files.

Using the paging selections on the Edit menu selections, ThumbsPlus can view any of the images in a DCX file, and can split the pages into separate files.

**DXF: AutoCAD™ Exchange Format (R)**

The DXF format is defined by Autodesk, and is the format used for exchanging AutoCAD and other CAD system files. As opposed to the DWG format, which is proprietary and constantly changing, the DXF format is published and relatively stable.

**EPS: Encapsulated Postscript**

EPS files are Postscript language files, created for Postscript printers. ThumbsPlus can access only the preview image (which can be in either TIFF or Windows Metafile format).

Copying this format to the clipboard or otherwise saving or converting it only accesses this preview; the Postscript contents themselves are not accessed by ThumbsPlus.

**FIF: Fractal Image files (Iterated Systems, Inc.)**

FIF files are compressed using fractal compression, as patented and implemented by Iterated Systems Inc. ThumbsPlus can decode (read) these files; future support is planned for encoding them.

**GEM: GEM Metafile**

GEM Metafiles are vector graphic files which include drawing commands for rendering pictures. They are similar to, but less complete than, CGM files. GEM files originated on the Amiga, and have gone through several enhancement periods.

ThumbsPlus does not claim to support all GEM files at this time; fonts are not handled very well, and curve support is incomplete. However, the support is sufficient for most clip-art, the most common type of file stored in GEM format.

## **GIF: CompuServe GIF**

The GIF format was developed by CompuServe, an on-line service, to provide good file compression and relatively fast decompression speed. GIF is a very popular format for online services, but is limited to a maximum of 256 colors.

Two standards have been developed: 87a and 89a. ThumbsPlus fully supports the 87a standard, and supports (for viewing) much of the 89a standard, including multiple images (GIF animations), text blocks and input extensions. *Multiple images and other extensions are not supported on Windows 3.1, however.*

ThumbsPlus can read and write interlaced and transparent GIF files. Transparency (for a specific color) is maintained when the image is saved. Note that if you modify the colors of the image, you'll most likely need to select a new transparency color. The topic [GIF Save Options](#) contains more information on saving GIF files.

ThumbsPlus cannot create or modify multiple-image GIF files, or GIF files with text or input extensions; only single-image GIF files can be written.

The [LZW compression](#) in GIF files is licensed under a patent from *Unisys Corporation*.

**ICO: Windows Icons**

ThumbsPlus supports Microsoft Windows icon files, which are associated with applications for display in Program Manager or alternate shell programs.

256-color icons are handled, but not well tested because of a general lack of availability of 256-color icons.

## **IFF, LBM: Amiga and Deluxe Paint**

The IFF format is an Amiga image storage format. LBM was created for the Deluxe Paint package, and is essentially the same. ThumbsPlus supports all known IFF and LBM formats except HAM and Dynamic HAM, which may be supported in the future.

## **IMG: GEM Images**

The IMG format was originally designed for the Atari computers, then migrated to PCs for several GEM-based products, including Ventura Publisher. IMG files may also be embedded in GEM metafiles.

ThumbsPlus supports reading of all known IMG types, but does not currently correct the aspect ratio for files with non-square pixels.

## **JPG, JIF, JFI: JPEG (JFIF) Files**

The JPEG format was developed to provide a high degree of compression for images. It is a "lossy" compression method, meaning that some color information from the original is lost. When saving JPEG files, ThumbsPlus allows you to specify the intended quality of the image.

JPEG is generally appropriate for photographed or scanned images, and works best for 24-bit sources. JPEG is generally inappropriate for any type of line-drawn art.

The JFIF specification describes a standard way to incorporate JPEG images in disk files; only JFIF images are supported by ThumbsPlus. Some software (notably GIF2JPG, by Handmade Software), writes non-JFIF files which ThumbsPlus cannot handle.

ThumbsPlus incorporates the Independent JPEG Group's source code (release 6). This includes support for reading and writing progressive JPEG files.

Lossless JPEG is not currently supported. For lossless storage of 24-bit images, use [TIFF](#), [Targa](#), [BMP](#), or [PCX](#).

ThumbsPlus allows several loading options for JPEG files. When using a 256-color display, the JPEG file may be reduced to 256 colors during loading. This is not recommended if the image is going to be edited. See [JPEG Load Options](#).

For more information on saving in the JFIF format, see [JPEG Save Options](#).

**KDC: Kodak DC40, DC50 Native Camera Images**

KDC files contain the native image format for DC-40 and DC-50 Kodak cameras.

**KIZ: Kodak Postcard files**

Kodak postcards (KIZ) files are uuencoded HTML text and JPEG images. ThumbsPlus loads only the JPEG image contained in the file; the HTML and other information is ignored.

**MID: Windows MIDI Music files**

ThumbsPlus can play .MID files if you double-click them. The playing will cease when the MIDI file completes or you press the ESC key.

The thumbnail generated for .MID files is simply the icon of the application associated with them in File Manager or Explorer.

**MND, MNI: Mandelbrot for Windows images**

Mandelbrot for Windows is another Cerious Software product, which generates Mandelbrot set fractals. The files generated by this program may be thumbnailed and viewed in ThumbsPlus.

MNI files contain information about generating the image only, but may contain a preview bitmap. This preview can be extracted by ThumbsPlus from these files.

## **MOV: QuickTime for Windows**

MOV is the standard Macintosh video format.

The registered version of ThumbsPlus supports playing, viewing and manual thumbnailing (from any frame) of QuickTime files.

Apple QuickTime for Windows must be loaded on the system to play MOV files. MOV files must be *flattened* to play on Windows. This means that the Macintosh resource and data file forks must be combined into a single file.

**MPG: MPEG compressed video (R)**

MPEG video files are compressed video files supported by many newer video cards and display drivers. ThumbsPlus requires an MCI-compliant MPEG driver to support these files; several are available on CompuServe, AOL or the Internet (i.e., SoftPEG). The best one we've seen is Xing Technologies' MPEG decoder.

As of this writing, these MPEG decoders *do not* provide MCI drivers: VMPEG, MpegPlay.

## **PCD: Kodak PhotoCD Images**

Kodak PhotoCD files are a proprietary format developed by Kodak for photographic image storage. They are generally located on CD-ROM only, due to their extremely large size. They may be loaded at various resolutions.

ThumbsPlus can load at any of the following resolutions:

- Base/64 (96x64)
- Base/16 (192x128)
- Base/4 (384x256)
- Base (768x512)
- Base\*4 (1536x1024)
- Base\*16 (3072x2048)
- Base\*64 (6144x4096)

ThumbsPlus can load as either Truecolor, 8-bit palette or as grayscale images. Use the Photo CD Loading options dialog box to select the desired size and color depth for loading PhotoCD files.

Encrypted and watermarked images are supported – ThumbsPlus will request the password when such an image is requested at an encrypted or watermarked size.

## **PCX, PCC: ZSoft Picture**

PCX and PCC files are a fairly early PC graphic format, which has been extended over the years to support more and varied color depths.

The only known PCX format not supported by ThumbsPlus is 2-plane CGM files (4 color). These files may be supported in the future if there is sufficient interest.

ThumbsPlus does support 24-bit (3-planes x 8-bits per pixel) PCX files.

PCX files may or may not be compressed; ThumbsPlus always writes version 5, compressed PCX files, in the color depth of the current image.

**PFB: Adobe Type 1 Font (R)**

PFB files are Adobe Type 1 Font files. ThumbsPlus handles them similarly to TrueType fonts (TTF), and the same settings apply.

Note: PFB files are supported *only* on Windows 95.

**PNG: PiNG format**

PNG files are based a new graphics specification that provides for excellent lossless compression without any patented technology. Unlike GIF, which requires royalties to Unisys Corp., PNG is royalty free.

Only read support is currently provided for the PNG format, though write support will be added in a subsequent version.

## **PSD: Adobe Photoshop**

PSD files are the native format used by Adobe Photoshop. There are various "flavors" of PSD files; ThumbsPlus can read most of them (as of Photoshop 2.5), with the following known limitations:

- Only the first channel of multi-channel PSD files is loaded (as grayscale).
- Duotone files are loaded as grayscale.

Version 3 Photoshop files are viewed and thumbnailed as they were last viewed in Photoshop. *Version 2.5 compatibility mode* must be set in Photoshop when saving the files (**File | Preferences | General | More**). Setting compatibility mode does not eliminate the availability of any version 3 features, but makes the files somewhat larger (to accommodate the extra image information).

**RAS: Sun Raster**

Sun Raster files are a popular image format for SUN UNIX systems. They can contain either color-mapped (256-color) or truecolor images.

Many packages write the colors reversed (Red for Blue, Blue for Red), without setting the appropriate flag in the header. You can use [Image | Swap Red and Blue](#) from to correct such files.

## **RAW: Raw Grayscale or RGB**

ThumbsPlus can handle a wide variety of raw grayscale or RGB files, including:

- 8-bit grayscale
- 16-bit grayscale (Intel or Motorola byte order)
- 24-bit RGB (RGB or BGR order)
- 32-bit RGBA (RGBA, ARGB, BGRA or ABGR order)

ThumbsPlus can skip areas at the beginning or end of the file, and can replicate image scan lines (some medical imaging programs store only every other scan line). You use the Raw Loading Options dialog (Options | File Loading • Raw) to configure raw file types.

*Note:* In order for ThumbsPlus to recognize a file as a defined raw type, two criteria must be met:

- 1 The image information must be defined so that the file size matches the "expected file size" as described above.
- 2 The file extension must be defined (using Options | Preferences • File Types) as "equivalent to" the .RAW type.

## **STX, ST5, ST6, ST7, ST8: Santa Barbara Instruments Group**

Santa Barbara Instruments Group manufactures and sells digital CCD cameras for astronomy. These formats are produced by the camera software. Both grayscale and color images can be loaded; for 16-bit grayscale, ThumbsPlus uses the range of pixels as last viewed or processed by SBIG software.

*Note:* The older .ST4 format files may be defined as 192 x 165 8-bit grayscale raw files, with a 192 byte skip at the end of the file.

**TGA, WIN: Targa Truevision™**

ThumbsPlus supports 8-bit, 16-bit and 24-bit Targa files. The more recent Targa extensions (including the "Developer Area") are not yet supported, but planned for a subsequent release.

The alpha channel information not currently retained or processed.

ThumbsPlus saves TGA files at the appropriate color depth for the graphic; 4-bit (16-color) files are promoted to 8-bit Targa files.

## **TTF, TTR: TrueType fonts**

ThumbsPlus can thumbnail, install, and remove TrueType fonts.

The default format of the thumbnail is to show the font name in the font itself. The text in the thumbnail may be changed using the TrueType Loading Options dialog box.

When installing and removing fonts, ThumbsPlus updates the WIN.INI file to reflected the added or deleted fonts. ThumbsPlus never deletes TTF files from the disk (unless, of course, you use File | Delete).

## TIF: Tagged Image File Format

The Tagged Image Format was developed by several companies, including Aldus and Silicon Graphics, to be the be-all and end-all of image file formats. Because of its scope and extensibility, it is an extremely complex format which no single product can support completely.

The *known* TIFF formats not currently handled by ThumbsPlus are:

- Images in YCbCr (YUV) or proprietary color formats.
- Alpha channels (extra samples) are discarded when reading.

The following compression methods and special-interest formats are supported:

- Multi-image TIFFs (*Using the paging selections on the Edit menu selections, ThumbsPlus can view any of the images in a multi-image TIFF file, and can split the pages into separate files.*)
- Tiled TIFFs
- CCITT RLE, Group 3, and Group 4 Fax compression
- Packbits, Thunderscan and Next compression
- LZW compression
- Motorola (MM) format
- JPEG compression (post TIFF 6.0 format)
- ZIP "deflate" mode compression (experimental)
- CMYK TIFFs
- CIE L\*a\*b colorspace TIFF files
- 16-bit grayscale and 48-bit color TIFF files

ThumbsPlus writes uncompressed TIFFs, or compressed via CCITT Group 3 or 4 FAX, Packbits, JPEG, ZIP, or LZW.

## **UUE, 001: UUencoded graphics**

UUE files are graphics which have been encoded for 7-bit transmission using the 'uuencode' method. These files are very popular on the Internet, especially in the Usenet Newsgroups. ThumbsPlus supports single and multi-part UUE files; multi-part files must have an extension indicating the part number (i.e., File.001, File.002, File.003). Only the .001 (or .UUE) file needs to be in the file list; the other parts will be automatically referenced when needed during decoding.

There are several loading options for UUE files, which include the capability to decode to a specific directory and to remove the original file. See [Options | File Loading • UUdecode](#).

**WAV: Windows sound files**

WAV files are the standard Windows sound format. ThumbsPlus can play them when they are double-clicked. You can stop playing by pressing ESC.

The thumbnail generated for WAV files is simply the icon of the application associated with them in File Manager or Explorer.

## **WPG: Word Perfect Graphics**

WPG files are a vector (metafile) format that WordPerfect Corporation developed for use with its word processing products. Like other formats, WPG has evolved over the years.

ThumbsPlus supports both the original WPG (WPG1) and new (WPG2) formats for graphics; some charting and textual items aren't supported in WPG1, and the following are not supported in WPG2:

- Poly B-Splines.
- Complex polygons (components are rendered and filled separately).
- Object group rotation, skew, taper and translation.
- Text items are partially handled.
- Bitmaps are not rotated, skewed or tapered.
- Gradient fills are partially supported.

## **WMF, MF: Windows Metafile**

The Windows Metafile format is the standard Windows format for storing vector and metafile graphics. It is quite powerful, as anything that can be drawn on the screen or printed on a printer can be stored in a metafile. It does, however, lack several rather rudimentary graphics primitives, such as Bézier curves and non-orthogonal ellipses.

ThumbsPlus can read and write Windows metafiles; vector graphics are also passed to and from the clipboard in this format.

Also, using OLE to load or thumbnail proprietary formats most often uses Windows Metafiles as the format for transfer of the picture of the file.

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# Main Window

Keyboard

Menus

## Keyboard - Main Window

**TAB** - Switch between the directory list and the file list.

You may press the first letter of a directory or file name to jump to the first name in the directory or file list (beyond the current position) with that name. Continue pressing the same letter to jump to other files beginning with that letter.

*See also:* [Selecting Files](#) for more information on the keyboard interface for selecting files.

### Menu accelerator keystrokes:

Shift+Ctrl+C	<a href="#">Edit   Auto Clip Save</a>
Ctrl+C	<a href="#">Edit   Copy</a>
Ctrl+V	<a href="#">Edit   Paste</a>
Ctrl+K	<a href="#">Edit   Select All</a>
Shift+Ctrl+M	<a href="#">Edit   Select Mask</a>
Shift+Ctrl+A	<a href="#">Edit   Clear All</a>
Ctrl+Enter	<a href="#">Picture   Batch Convert/Edit</a>
F5	<a href="#">File   Copy</a>
Ctrl+F5	<a href="#">File   Create Directory</a>
Ctrl+Shift+F6	<a href="#">File   Delete Directory</a>
Delete	<a href="#">File   Delete</a>
Shift+Enter	<a href="#">Picture   Edit</a>
F6	<a href="#">Picture   Properties</a>
Shift+F6	<a href="#">File   Install Font</a>
Ctrl+L	<a href="#">File   Label</a>
Shift+F5	<a href="#">File   Move</a>
Ctrl+N	<a href="#">File   New Database</a>
Ctrl+O	<a href="#">File   Open Database</a>
Shift+F9	<a href="#">File   Print Catalog</a>
Ctrl+F9	<a href="#">File   Page Setup</a>
F9	<a href="#">Picture   Print</a>
Ctrl+F6	<a href="#">File   Remove Fonts</a>
Ctrl+Shift+F5	<a href="#">File   Rename</a>
F8	<a href="#">Picture   Slide Show</a>
Enter	<a href="#">Picture   View</a>
F7	<a href="#">Picture   Center Wallpaper</a>
Ctrl+F7	<a href="#">Picture   Remove Wallpaper</a>
Shift+F7	<a href="#">Picture   Tile Wallpaper</a>
F1	<a href="#">Help   Contents</a>
Ctrl+F1	<a href="#">Help   Search</a>
Shift+Ctrl+D	<a href="#">Options   Save for Startup   Directory Path</a>
Shift+Ctrl+E	<a href="#">Options   Save for Startup   Initial Database</a>
Shift+Ctrl+P	<a href="#">Options   Save for Startup   Window Position</a>
Shift+Ctrl+L	<a href="#">Window   Status Line</a>
Ctrl+B	<a href="#">Window   Toolbar</a>
Shift+F1	<a href="#">Thumbnail   Update All</a>

F2	<u>Thumbnail   Make</u>
F3	<u>Thumbnail   Refresh</u>
Ctrl+DELETE	<u>Thumbnail   Remove Orphans</u>
Shift+Ctrl+DELETE	<u>Thumbnail   Remove Tree</u>
Shift+DELETE	<u>Thumbnail   Remove</u>
Ctrl+F2	<u>Thumbnail   Scan Drive</u>
Shift+Ctrl+F2	<u>Thumbnail   Scan Tree</u>
Ctrl+-	<u>Tree   Collapse all</u>
/	<u>Tree   Collapse to Path</u>
-	<u>Tree   Collapse</u>
*	<u>Tree   Expand Branch</u>
+	<u>Tree   Expand One Level</u>
Ctrl+X	<u>Tree   Indicate Expandable</u>
Shift+Ctrl+I	<u>Tree   Indicate Thumbnails</u>
Ctrl++	<u>Tree   Refresh Tree</u>
Shift+Ctrl+F	<u>Tree   Show Offline</u>
Shift+Ctrl+O	<u>Tree   Show Thumb Dirs Only</u>
Shift+Ctrl+Z	<u>Tree   Show Zip Files as Dirs (R)</u>
F4	<u>Window   Show All</u>
Shift+F4	<u>Window   Close All</u>
Ctrl+ F4	<u>Window   Minimize All</u>

## Main Window Menus

File

Edit

Tree

Picture

Thumbnail

Options

Window

Help

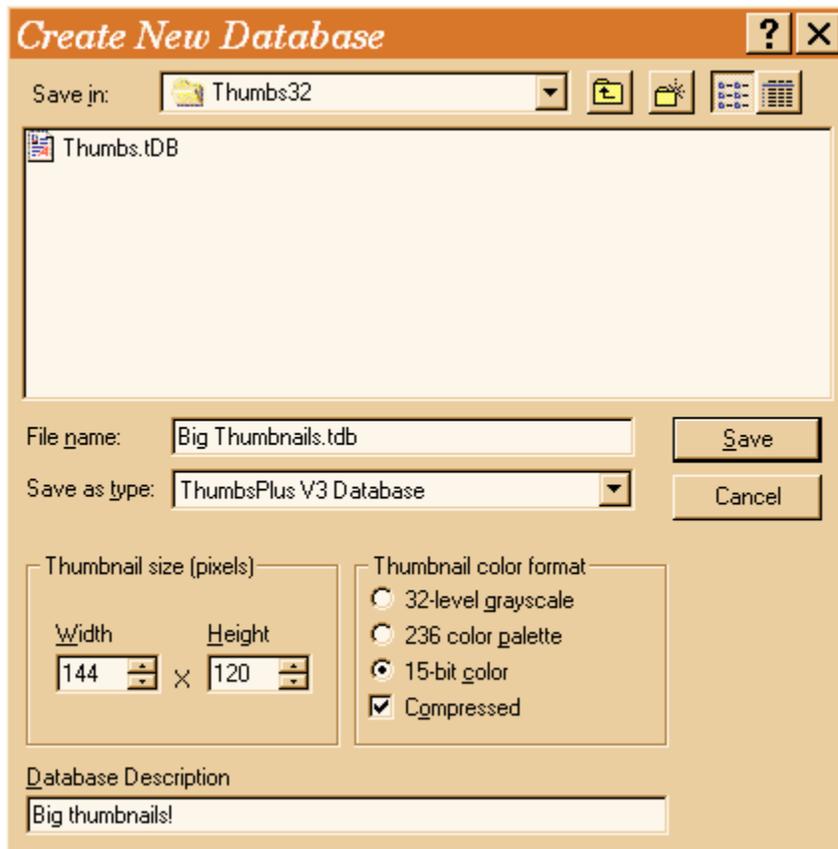
## **File Menu**

<u>New Database...</u>	Ctrl+N
<u>Open Database...</u>	Ctrl+O
<u>Copy...</u>	F5
<u>Move...</u>	Shift+F5
<u>Rename...</u>	Ctrl+Shift+F5
<u>Delete...</u>	Delete
<u>Create Directory...</u>	Ctrl+F5
<u>Delete Directory</u>	Ctrl+Shift+F6
<u>Label Disk</u>	Ctrl+L
<u>Install Fonts</u>	Shift+F6
<u>Remove Fonts</u>	Ctrl+F6
<u>Print Catalog...</u>	Shift+F9
<u>Register ThumbsPlus...</u>	
<u>Exit</u>	Alt+F4

**File | New Database Ctrl+N**

If you have a lot of graphics files, you may want to organize them into separate databases. This option allows you to create a new database.

Use this option to create a new thumbnail database. There are several options you can set for the database, including the size of the thumbnails and their color depth. Note that larger (and more colorful) thumbnails require more disk space. The default of 96x72 pixels at 8-bit (256) color is fairly efficient. Increasing the size to 120x120 with 15-bit (32768) color will increase the thumbnail database size considerably.



***File | Open Database Ctrl+O***

If you have a lot of graphics files, you may want to organize them into separate databases. This option allows you to select another database to open.

ThumbsPlus databases have the extension ".TDB". Each of these databases has an associated option (INI) file, with the extension ".TDO".

ThumbsPlus can only one a single database at a time, though you can run ThumbsPlus multiple times, each time with a different (or the same) database.

You can specify the database for ThumbsPlus to use on the command line, from Program Manager. You can also double-click on .TDB files from File Manager or Explorer to bring up ThumbsPlus with a specific database.

To create a new database, use the File | New Database menu option.

***File | Delete DELETE***

Deletes the selected file(s). If confirmation of file deletion is selected from the Options | Preferences • Confirmations dialog box, you will be prompted whether or not to delete each file.

***File | Copy F5***

Prompts for the desired directory to copy the selected files to, and copies them there. Alternately, you can drag the selected files to the intended directory. To force copying (rather than moving, which is the default when dragging files to a directory on the same disk), you can hold down the **CTRL** key while dragging.

***File | Install Fonts    Shift+F6***

This option is available if the first file selected is a TrueType font. It installs any selected fonts that are not already installed, and updates the WIN.INI file so they will be available the next time Windows starts.

***File | Remove Fonts Ctrl+F6***

Any selected TrueType fonts that are currently installed will be removed, and removed from the WIN.INI file. Be sure the first selected file is a TrueType font so that this selection will be available.

***File | Label Disk      Ctrl+L***

Use this selection to create a volume label for a diskette. ThumbsPlus cannot keep track of which diskette contains which files unless they are labeled.

***File | Move    Shift+F5***

Prompts for the desired directory to move the selected files to, and moves them there. If the directory is on another disk, this will copy each file, then delete the original. Alternately, you can drag the selected files to the intended directory. To force moving (rather than copying, which is the default when dragging files to a different disk), you can hold down the **SHIFT** key while dragging.

***File | Rename Ctrl+Shift+F5***

Prompts for a new file name for each selected file, and renames it accordingly. You cannot move a file to a different directory with this option; use File | Move instead.

***File | Create Directory***      ***Ctrl+F5***

Prompts for a directory name to create as a sub-directory for the current directory (selected in the **Directory List**).

Note that since it has no thumbnailled files in it, this new directory will not be visible in the directory list unless Tree | List Thumb Dirs Only is **not** checked.

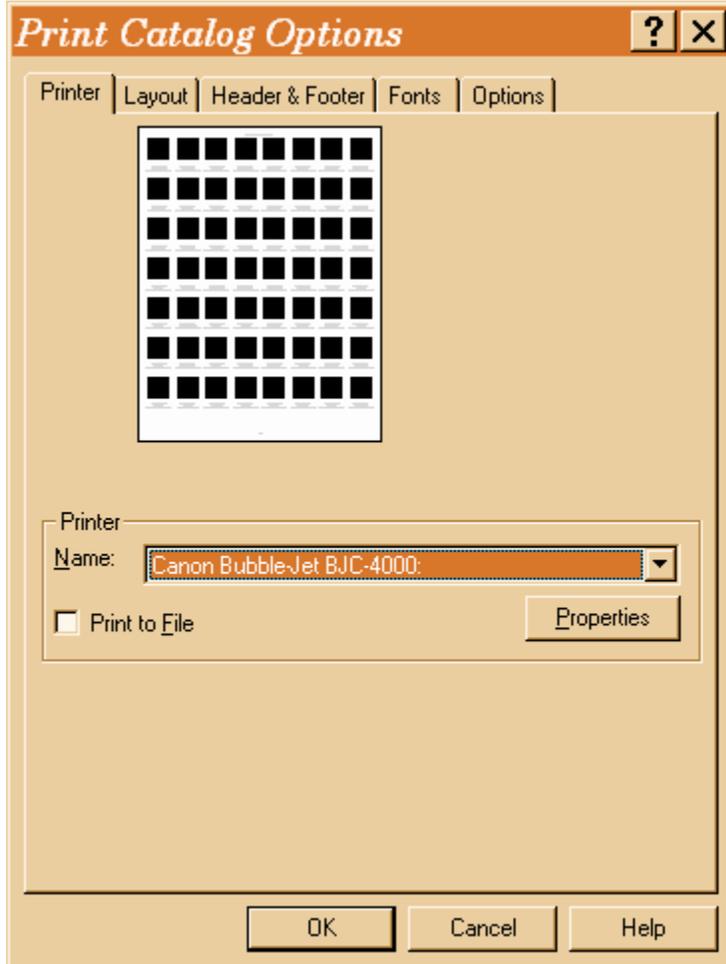
***File | Delete Directory***      ***Ctrl+Shift+F6***

This selection removes the current directory, any files in it, and any sub-directories. You will be prompted to confirm if there are files within the directory, or within any sub-directories. ThumbsPlus is nice and simply removes the directory if it is empty!

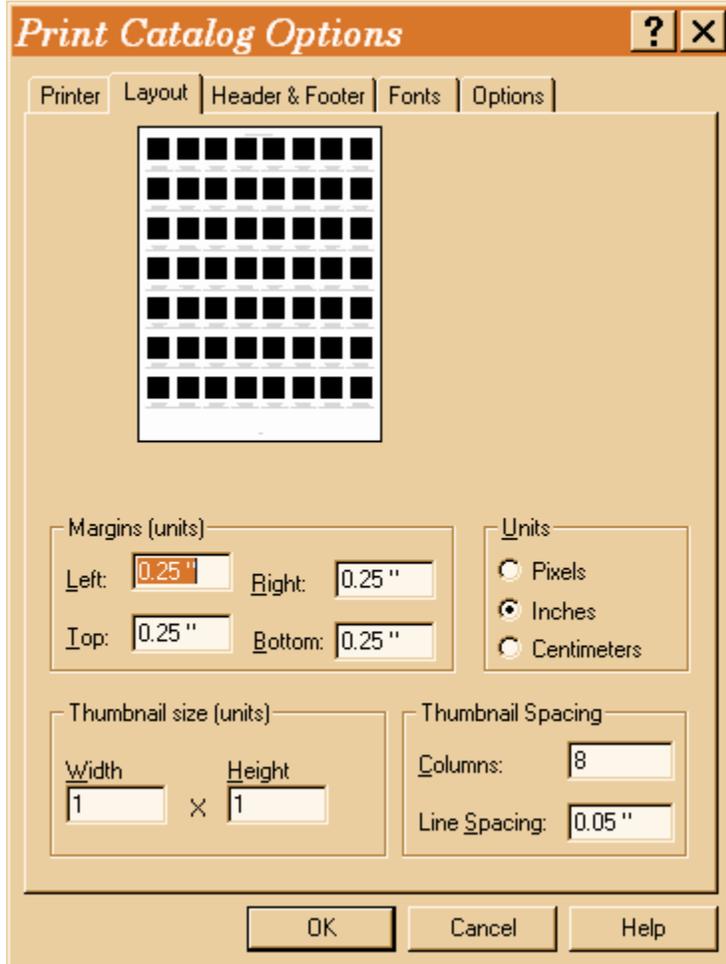
***File | Print Catalog Shift+F9***

This selection prints a catalog of the thumbnails in the database. There are many configuration options divided among the tabs in the Catalog Options dialog box. Each of these tabs is described below.

- Printer
- Layout
- Header & Footer
- Fonts
- Options



Use the **Name** field to select the printer you desire. If you want to print to a file that can be copied to the printer later, select **Print to File**. To edit the properties specific to the printer (i.e., page orientation, page size, color and dithering options), click on the **Properties** button.



Use this tab to determine the layout on the page of the catalog.

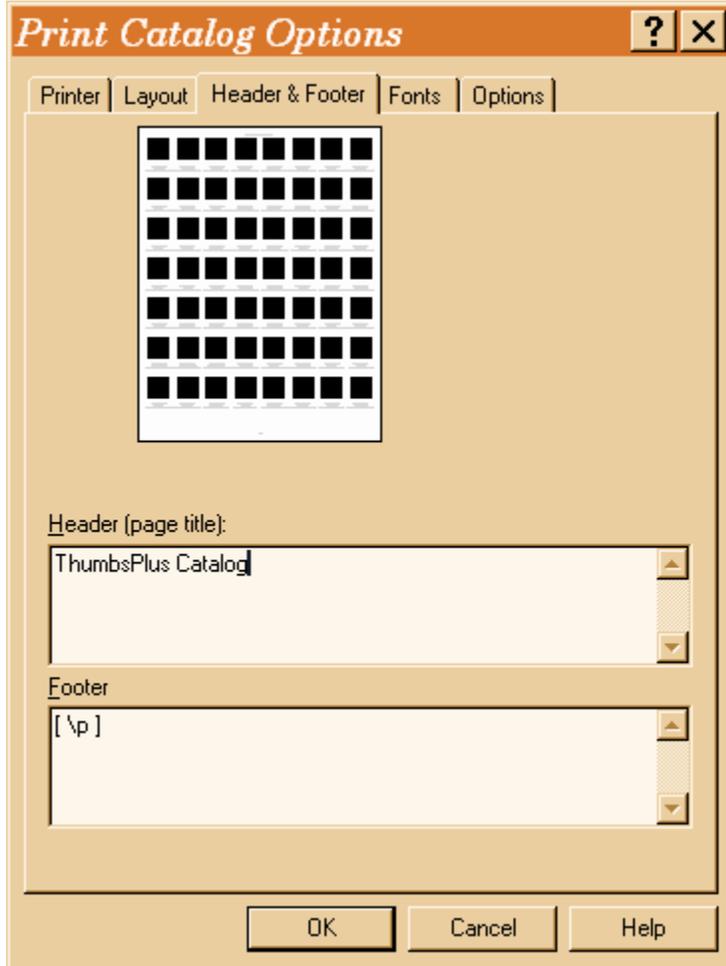
**Margins.** Select the left, right, top and bottom margins.

**Units.** Select the desired units (inches, centimeters or pixels).

**Thumbnail Size (units).** Selects the size of thumbnails to print, in inches, centimeters or pixels (based on Units).

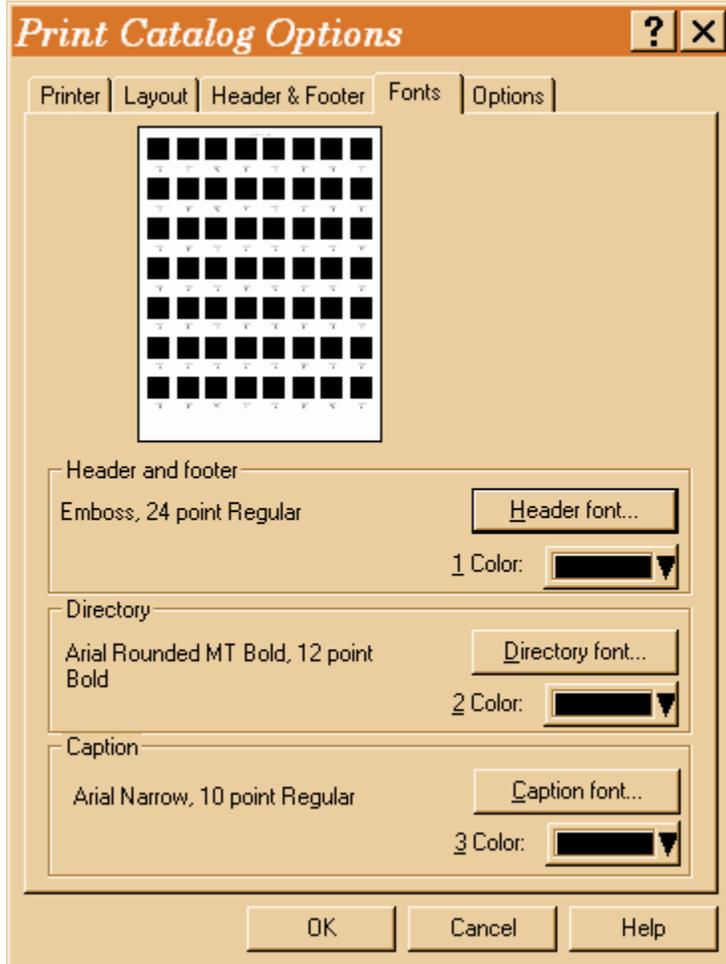
**Columns.** Selects the number of columns of thumbnails to present.

**Line Spacing.** Selects the spacing (in units) between lines of thumbnails or text.

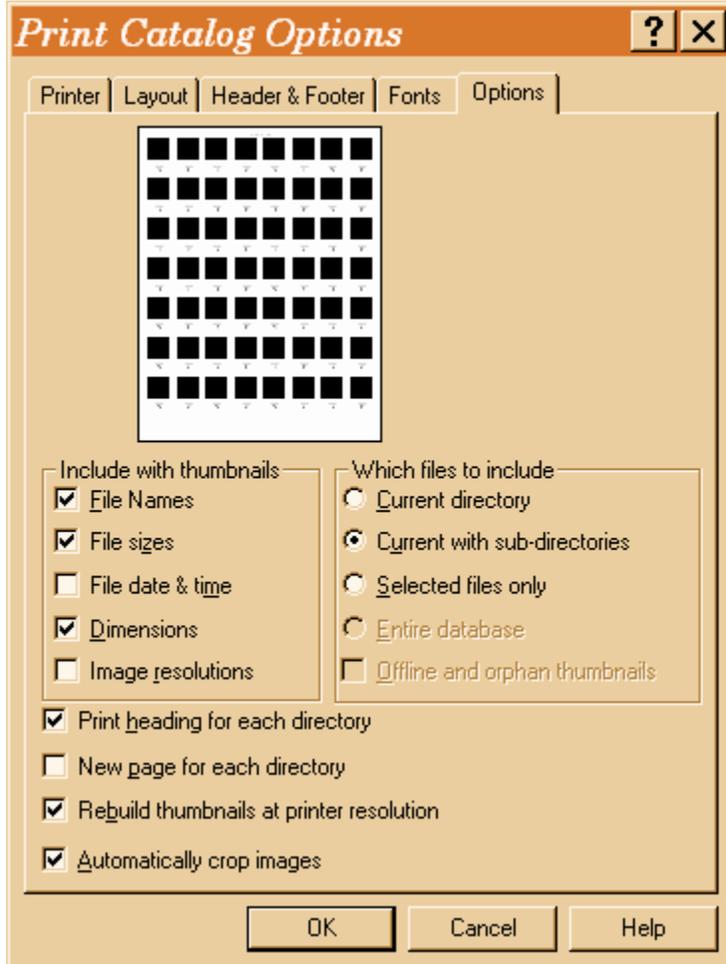


Use this tab to enter a **header** and **footer** for the catalog. Each may be multiple lines, and may contain the following tokens that ThumbsPlus will use to substitute the appropriate value:

- \p** Page number.
- \d** Date
- \t** Time



Use this tab to select the typefaces and text colors for the catalog printout. You can select separate fonts for the header and footer, directory entries, and thumbnail captions.



The Options tab provides several choices for the contents of the catalog.

**Include with thumbnails.** Select the information about the thumbnails to include in the catalog.

**Which files to include.** Choose which files to include in the catalog.

**Print heading for each directory.** If this item is checked, then ThumbsPlus will print a heading for each directory printed in the catalog. This heading will contain the volume and directory names.

**New page for each directory.** Check this option to cause ThumbsPlus to start a new page for each directory or sub-directory.

**Rebuild thumbnails at printer resolution.** Check this option for high-resolution thumbnails, which take longer to generate (the disk files must be read and reduced to the proper size), but are much higher quality.

**Automatically crop images.** Causes ThumbsPlus to automatically crop images before making the thumbnails. This removes excess single-color borders from images.

***File | Register ThumbsPlus***

Use this selection to fill out an order form for ThumbsPlus that you can print to mail or fax to Cerious Software, Inc. [Additional ordering information](#) is available here in the help file.

***File | Exit    Alt+F4***

Select this option to exit ThumbsPlus

## **Edit Menu**

Copy

Ctrl+C

Paste

Ctrl+V

Select All

Ctrl+A

Clear All

Ctrl+Shift+A

Select Mask

Ctrl+Shift+M

Auto Clip Save...

Ctrl+Shift+C

Export Selecte...

***Edit | Copy    Ctrl+C***

This option copies the first selected file to the clipboard in the appropriate format for the file for raster images or metafile for vector images).

If no files are selected, this menu option is grayed.

You can make this option the default (double-click) option from the General Options dialog box.

***Edit | Paste    Ctrl+V***

This option pastes the current clipboard contents to a ThumbsPlus View Window. If the clipboard is empty, or the contents are not in a recognized graphics format, this options is grayed.

*Edit | Clear All      Ctrl+A*

This option deselects all selected files in the file list.

***Edit | Select All      Ctrl+Shift+A***

This option selects all files in the file list for processing by any of the commands which accept multiple files, such as view, properties or slide show.

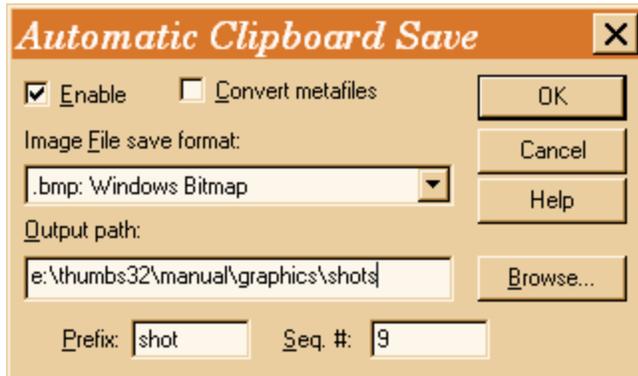
***Edit | Select Mask    Ctrl+Shift+M***

This option prompts for a filename mask (i.e., "A\*.GIF") and selects all files matching the mask. Any previous selection(s) are cleared.

## **Edit | Auto Clip Save Ctrl+Shift+C**

This selection allows you to automatically save the clipboard contents to a disk file each time they change (and a compatible format -- bitmap or metafile -- is on the clipboard).

This is very useful for window or screen capture, too -- turn it on, and each time you press PrintScreen (for the entire screen) or Alt+PrintScreen (for the current window), ThumbsPlus will save the screen or window as a graphic file.



**Enable.** When checked, automatic clipboard saving is enabled. The Auto Clip Save menu selection is also checked when enabled.

**Convert metafiles.** When checked, metafiles on the clipboard will be rasterized and saved; otherwise, they will be saved as Windows metafiles (.WMF).

**Image File save format.** Select the desired file type to save.

**Output Path.** Select the directory where you want the auto-saved files to be stored. The **Browse** button allows you to find a directory easily.

**Prefix.** Enter a prefix for the file name. Use less than 8 characters; whatever is left will be filled in with a sequence number. For example, if you enter SCRNM here, and select BMP as the type, the files will be saved as SCRNM0000.BMP, SCRNM0001.BMP, etc.

**Seq.** This is the next sequence number to use in the generated file names.

***Edit | Export Selected***

This option creates bitmap files of all currently selected thumbnails. The files are 96 x 72 pixels, 8-bit color (236 colors used), and stored in Windows Bitmap (BMP) format with a .TNB extension and the same name as the original file. You will be prompted for a destination directory for the thumbnail files.

The files created with this option may be renamed or converted to other types. You can select the ".TNB" file type in the File Types dialog box as equivalent to BMP files so they may be viewed, renamed or converted in ThumbsPlus.

## Tree Menu

<u>Expand One Level</u>	+
<u>Expand Branch</u>	*
<u>Collapse Branch</u>	-
<u>Collapse All</u>	Ctrl+/ /
<u>Collapse to Path</u>	/
<u>Refresh Tree</u>	Ctrl++
<u>Indicate Expandable</u>	Ctrl+Shift+X
<u>Indicate Thumbnails</u>	Ctrl+Shift+I
<u>List Thumb Dirs Only</u>	Ctrl+Shift+O
<u>Show Offline Volumes</u>	Ctrl+Shift+F
<u>Zip Files as Directories</u>	Ctrl+Shift+Z

### *Tree | Expand One Level*

This option expands the currently selected directory entry in the **Directory List** by showing any sub-directories. Double-clicking an expandable entry also performs this action.

If Indicate Expandable is checked, the folders for directories which have sub-directories are marked with a '+'.

If Indicate Thumbnails is checked, directories are color-coded to indicate the presence of thumbnails.

***Tree | Expand Branch*** \*

This option expands the currently selected directory entry in the **Directory List** by showing any sub-directories. Any sub-directories are also expanded, thereby showing this "branch" of the tree in its entirety.

If Indicate Expandable is checked, the folders for directories which have sub-directories are marked with a '+'.

If Indicate Thumbnails is checked, directories are color-coded to indicate the presence of thumbnails.



***Tree | Collapse All***    ***Ctrl+-***

Hides all directories, leaving only the top level (drive and off-line volume) entries.

***Tree | Collapse to Path***      /

This option collapses all entries except those directories on the currently-selected path. For example, if the current directory is C:\WINDOWS\SYSTEM, all entries for drives other than C are hidden, all first-level directories of C: are shown, and all sub-directories of WINDOWS are shown.

***Tree | Refresh Tree*** *Ctrl++*

This option rereads the directory tree. Use this option if you change the directory structure from another application. This option also collapses the tree to the current path (Tree | Collapse to Path).

***Tree | Indicate Expandable Ctrl+Shift+X***

Checking this menu item causes ThumbsPlus to display a '+' in directory entries which contain sub-directories and may be expanded, or '-' in directory entries which are already expanded.

***Tree | Indicate Thumbnails Ctrl+Shift+I***

Checking this option causes ThumbsPlus to use differently colored folders to indicate "interesting" directories. Folders for directories which contain thumbnails are colored green; folders for directories which do not themselves have thumbnails, but whose subordinate directories do, are colored blue. This option is really useful only after drive(s) have been scanned for images (see [Scan Drive](#)).

***Tree | List Thumb Dirs Only Ctrl+Shift+O***

Select this option to only show directories which contain thumbnails. This is only useful once graphics files have been located (usually by Scan Drive).

***Tree | Show Offline Volumes Ctrl+Shift+F***

Select this option to display disks which have been scanned but are not currently on an inserted disk. This will display each such volume as a small diskette, with the disk label next to it. For this option to operate properly, it is important that each diskette have a unique label. This options works for CDROMs as well as diskettes.

This option will also allow you to view directories and files which have thumbnails, but have been removed from the disk by a program other than ThumbsPlus. The folders for these directories, and the names for these files, will be grayed. If you do not intend to restore these files to the disk, you can use Thumbnail | Remove or Thumbnail | Remove Tree to remove the thumbnails from the database.

***Tree | Zip Files as Directories*** (R)    ***Ctrl+Shift+Z***

This option, available only in the registered release, causes ThumbsPlus to treat ZIP (PKZIP-compatible) files as directories. You can thumbnail, view, print, catalog and process files within ZIP files just as if they were in normal directories.

Note that ThumbsPlus currently only reads from the ZIP files. Update support is planned for a future release.

## Picture Menu

<u>V</u> iew	Enter
<u>E</u> dit	Shift+Enter
<u>P</u> roperties	F6
<u>B</u> atch Convert/Edit	Ctrl+Enter
<u>S</u> lide Show	F8
<u>A</u> nnotate...	Ctrl+E
<u>A</u> ssign Keyword	Ctrl+K
<u>F</u> ind...	Ctrl+F
<u>C</u> enter Wallpaper	F7
<u>T</u> ile Wallpaper	Shift+F7
<u>R</u> emove Wallpaper	Ctrl+F7
<u>T</u> WAIN Acquire...	
<u>T</u> WAIN Select Source...	
<u>P</u> age Setup	Ctrl+F9
<u>P</u> rint...	F9

***Picture | View ENTER***

Opens a view window for each of the currently selected files, up to the maximum specified in the Options | Preferences • General dialog box. This option will be grayed if no files are selected.

From the Options | Preferences • General dialog box, you can selecting Viewing as the default (double-click) action for files.

***Picture | Edit Shift+ENTER***

Edits the first selected file by launching the editor defined for its file type.

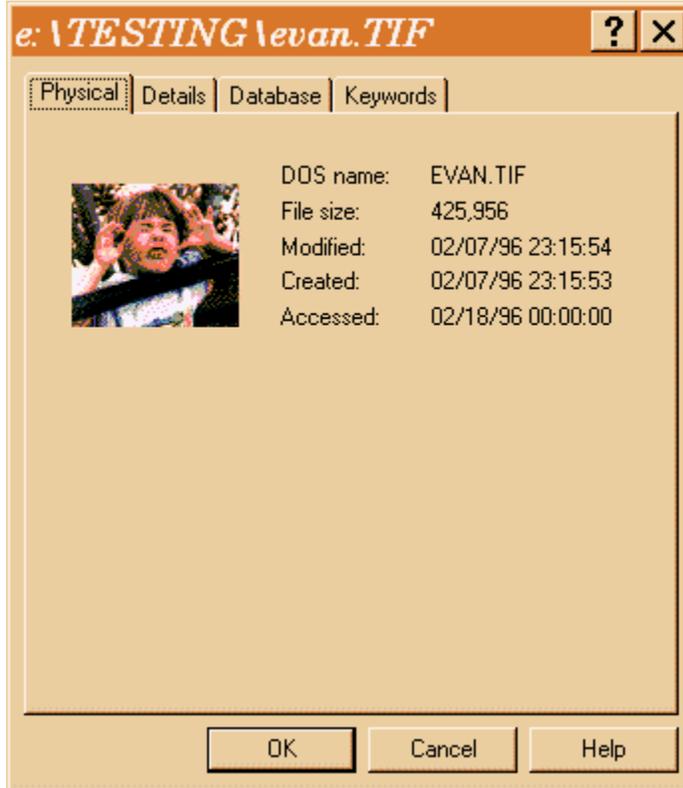
From the Options | Preferences • General dialog box, you can selecting Editing as the default (double-click) action for files.

***Picture | Properties F6***

This option displays an information window for the first selected file. There are several tabs, as shown below:

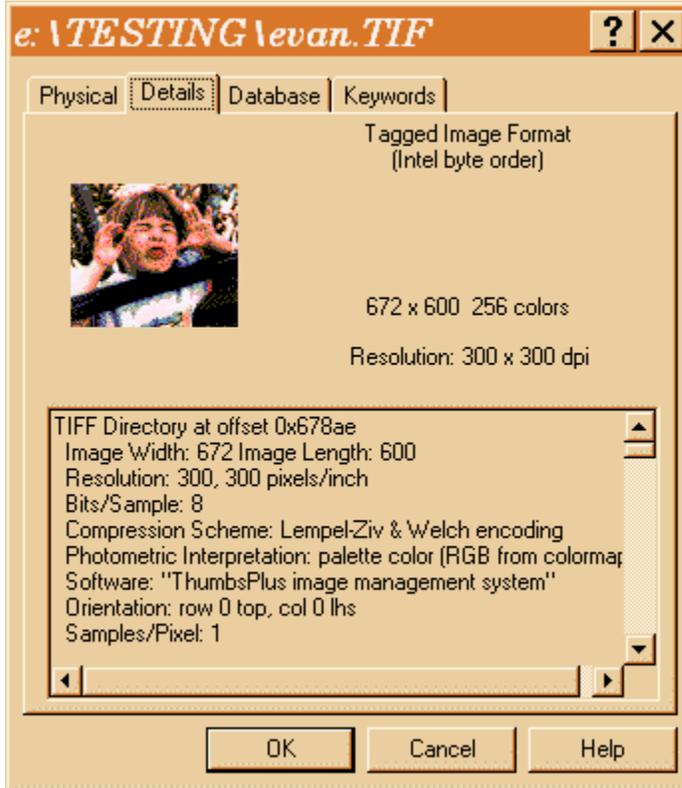
- Physical
- Details
- Database
- Keywords

Picture | Properties • Physical



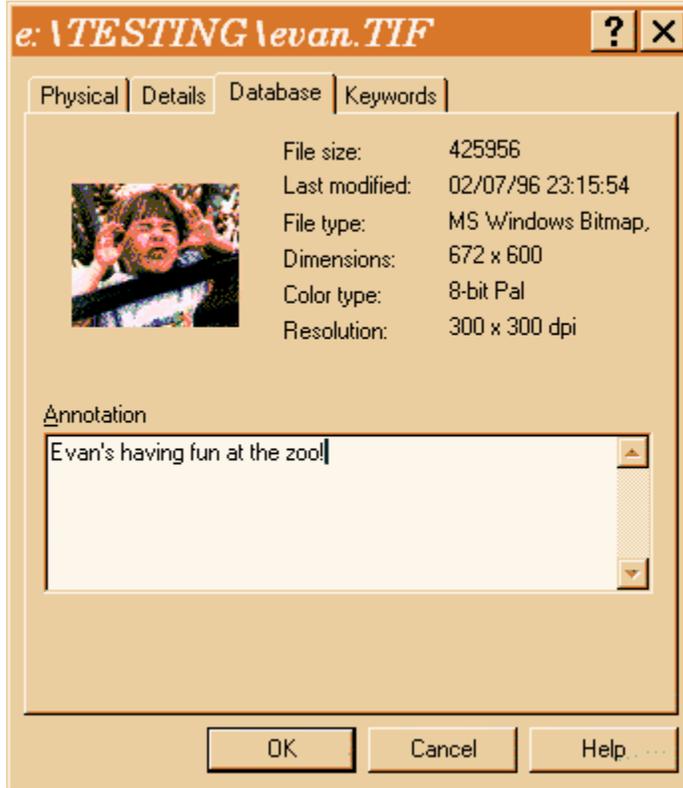
This tab in the Picture Properties dialog box shows physical file characteristics as stored on the disk or in a ZIP file.

Picture | Properties • Details



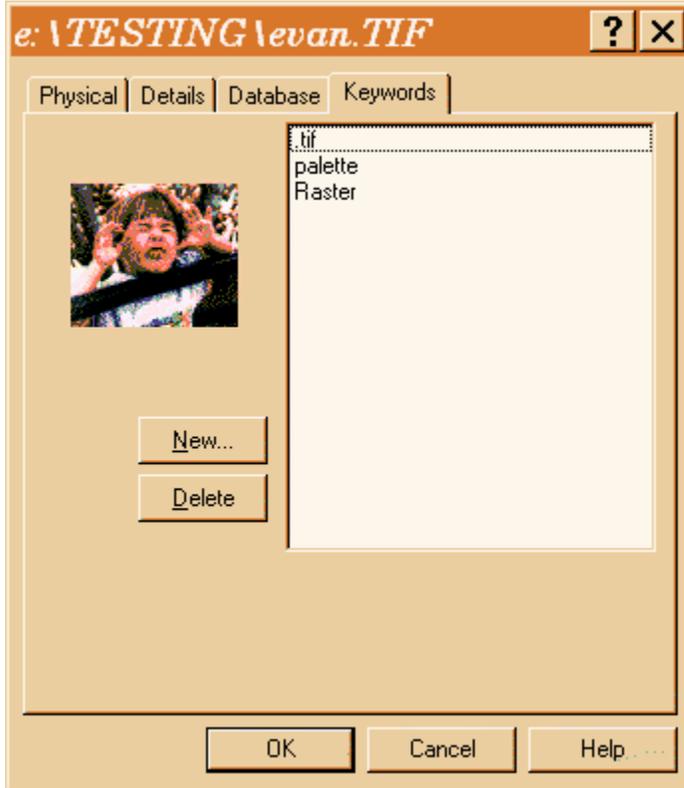
This tab in the Picture Properties dialog box shows detail information about the file (such as size in pixels, color depth, etc.)

Picture | Properties • Database



This tab in the Picture Properties dialog box shows information stored in the database about the file. You can also edit the **annotation** stored with the file.

Picture | Properties • Keywords

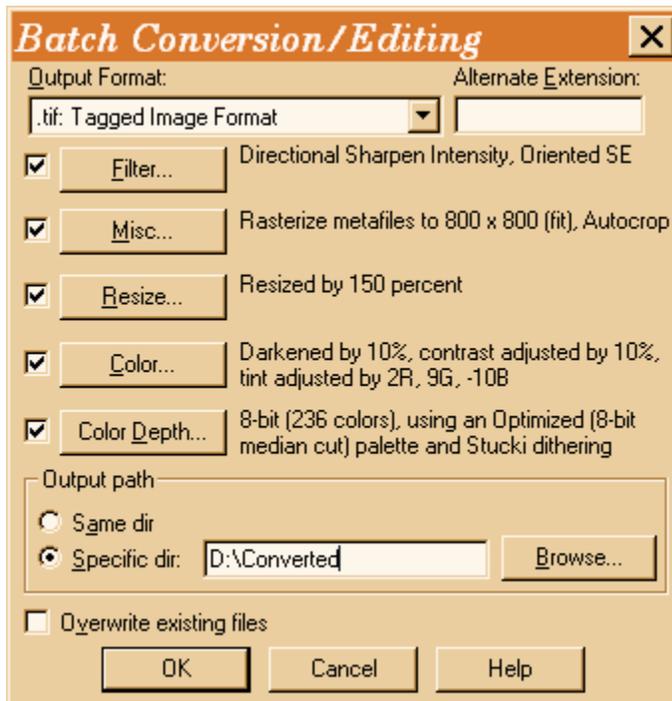


This tab in the Picture Properties dialog box shows the keywords associated with the file in the database. You can use the **New** button to associate new keywords with the file, and the **Delete** button to remove keyword associations.

## **Picture | Batch Convert/Edit Ctrl+ENTER**

With ThumbsPlus, you can convert and edit (in a single pass) many files in the background while you continue to work on other things (even start another copy of ThumbsPlus) This option displays a dialog box, which you use to control the batch process. Once you've made the selections and press the OK button, ThumbsPlus will prompt you for any options for the specific output format you've chosen, including comment fields and compression options.

You must select the files you wish to process before selecting this option. See [Selecting Files](#) for more information on how to select specific files. Each option in the dialog box is discussed below.



**Output Format.** Select the output format for the files. ThumbsPlus will save each file in this format. If you select a metafile format, such as WMF, then the image editing options will be disabled, and only metafiles will be processed. If you select the WMF (encapsulated bitmap) format, ThumbsPlus will generate a metafile containing the bitmap -- it will not trace the bitmap to obtain a vector representation.

**Alternate Extension.** If you want the output files to have an extension different from the one selected in the Output Format, the enter it here.

**Filter (R).** Check this box to enable digital image filtering of each image. Click on the button to use the [Filter](#) dialog box to select and configure the filter to use. ThumbsPlus displays a description of the filter to the right of the button.

**Misc.** Brings up the [Miscellaneous Batch Operations](#) dialog box, which allows you to select the size for converting metafiles to bitmaps, and various miscellaneous functions such as autocrop, flip, and histogram equalization.

**Resize.** Check this box to enable rotation and/or resizing of each image. Click on the button to

use the Rotate/Resize dialog box to set the options. ThumbsPlus displays a description of the action to be taken on the right of this button. If you rotate and resize, you may want to select an output Color Depth (below), as files are promoted to either 24-bit (truecolor) or 8-bit grayscale for proper rotation and resizing.

**Color.** Check this box to enable color adjustment of each image. Click on the button to use the Color Adjustment dialog box to set the amount of brightness, contrast, gamma and hue adjustment to apply to each image.

**Color Depth.** Use this selection to specify the output color depth, just as you would for an individual image. The Image | Color Depth dialog box will allow you to specify the number of colors you desire, the palette you want to apply (even one pasted from the clipboard!), and the type of dithering.

**Output Path.** Specify here the disk and directory you wish to send the converted and edited files to. You can use the **Browse** button to locate a directory you want to use. The files will be named the same as the input, except that the appropriate extension (default, such as BMP, JPG, or TGA, or specifically set in the Alternate Extension) will be used.

**Overwrite Existing Files.** Check this box if you want ThumbsPlus to overwrite files of the same name. If this box is not checked, and ThumbsPlus encounters an output file already there, it will skip that input file and display a message in the "Errors Encountered" area in the progress dialog box.

## Batch Convert/Edit | Miscellaneous Batch Operations



This dialog box allows you to select various image operations that you can do from the View window menus.

**Metafile Rasterization.** These items are used when a metafile or vector graphic is converted to a bitmap. They are the same items requested from the Image | Convert to bitmap menu option.

**Width** - The width of the bitmap to create from the metafile.

**Height** - The height of the bitmap to create from the metafile.

**Maintain Aspect Ratio** - Force the bitmap to be the same aspect ratio as the original metafile.

**Autocrop.** All same-colored borders from the image are removed. This option works only for bitmap (raster) images with solid borders. The lower-left corner pixel is used as a reference pixel -- all contiguous border of this color is cropped from the image. This function is done individually from the Edit | Autocrop menu selection in a view window.

**Invert.** Replaces each pixel in the image with its inverse -- black becomes white, red becomes green, etc. (See Image | Invert.)

**Swap Red & Blue.** Swaps the red and blue value of each pixel. This is required for some file types for which the RGB order is ambiguous or incorrectly reported in the file header. (See Image | Swap Red & Blue.)

**Flip Horizontally.** Replaces the image with a mirror image (left-to-right). (See Image | Flip Horizontal.)

**Flip Vertically.** Replaces the image with a mirror image (top-to-bottom). (See Image | Flip Vertical.)

**Equalize Histogram (R).** Computes an intensity histogram and equalizes (as much as possible) the intensity levels in the image. This improves the appearance of some images, but may give others too much contrast. See Image | Histogram for more information.

***Picture | Slide Show F8***

Displays the selected images one at a time, in full-screen mode, with a delay between images.

Press any key or the left mouse button to end the slide show. You can configure the slide show by selecting Options | Slide Show.

***Picture | Annotate    Ctrl+E***

Use this selection to enter or change a comment in the database about the file. The file must have a thumbnail to be able to save an annotation. The annotation may also be entered, viewed and edited using Picture | Properties • Database.

**Picture | Assign Keyword**    **Ctrl+K**



Use this selection to assign a keyword to the selected file *or to multiple selected files*. You may either select an entry from the drop-down list or type a new keyword.

You may search for images using the keywords you have assigned by using the Picture | Find selection.

You can have ThumbsPlus automatically assign some keywords using Options | Preferences • Keywords.

**Picture | Find Ctrl+F**



Use this selection to search for pictures based on keywords that were automatically or manually assigned. You may enter or select up to three keywords and a match method (**All**, **Any**, **Most**). Then, click on the **Find** button to show the number of matches. Click on **Show** to replace the current file list with the matching thumbnails.

For convenience, the directory list remains visible; you may drag files from the matched list to directories as always.

To manually assign keywords, select the pictures to assign and use Picture | Assign Keyword. For ThumbsPlus to automatically assign keywords (based on image type, name and color information), see Options | Preferences • Keywords.

**Note:** Selecting **Find** or **Show** when no keywords are entered will show all thumbnails in the database.

***Picture | Center Wallpaper F7***

This option installs the first selected file in the file list as the Windows wallpaper on the desktop. If the file is not a Windows bitmap file, or if it is not on a local hard drive, it is converted to a bitmap and copied to a temporary file, which is installed.

This option centers the bitmap on the screen, and is recommended for large images.

***Picture | Tile Wallpaper      Shift+F7***

This option installs the first selected file in the file list as the Windows wallpaper on the desktop. If the file is not a Windows bitmap file, or if it is not on a local hard drive, it is converted to a bitmap and copied to a temporary file, which is installed.

This option tiles the screen with the bitmap, and is recommended for small images.

***Picture | Remove Wallpaper Ctrl+F7***

This options removes the Windows desktop wallpaper.

***Picture | TWAIN Acquire*** <sup>(R)</sup>

This selection will acquire one or more images from the currently selected TWAIN data source. You must have TWAIN software from your scanner, camera, or other TWAIN data source vendor to use this option.

You will most likely receive a dialog box that lets you preview, crop and set-up the scanner. ThumbsPlus does not provide support for any scanners which are not TWAIN compliant.

If you have multiple TWAIN sources, you can use File | TWAIN Select Source to select the particular source you wish to use.

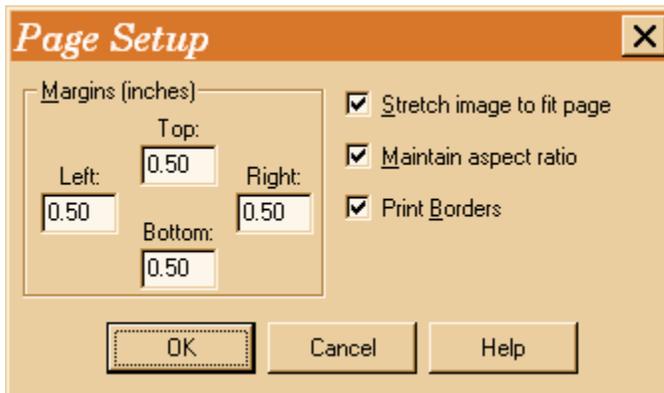
ThumbsPlus is currently compatible only with 32-bit TWAIN sources. Please contact your scanner or camera manufacturer for 32-bit TWAIN data source drivers.

***Picture | TWAIN Select Source*** <sup>(R)</sup>

Use this option to activate the TWAIN Data Source Manager (DSM), from which you may select the desired TWAIN source (generally a scanner, camera or other input device).

**Picture | Page Setup Ctrl+F9**

This dialog box allows you to customize the printing of individual graphics files.



**Margins.** Set the top, left, right and bottom margins on the page (in inches).

**Stretch image to fit page.** Will cause ThumbsPlus to stretch the images to fill the printed page (within the margins).

**Maintain aspect ratio.** When selected, ThumbsPlus will ensure that the width and height maintain the ratio in the original image, to avoid distortion.

**Print Borders.** Causes ThumbsPlus to draw a simple black rectangle around the edge of the image.

***Picture | Print F9***

This selection prints all selected graphics files. Each prints on a separate page, with no textual information. You can set the margins and other options using the Page Setup dialog box. To print a catalog of thumbnails, use the Print Catalog menu option.

## Thumbnail Menu

<u>Make</u>	F2
<u>Update All</u>	Shift+F2
<u>Scan Drive</u>	Ctrl+F2
<u>Scan Tree</u>	Shift+Ctrl+F2
<u>Remove</u>	Shift+Del
<u>Remove Tree</u>	Shift+Ctrl+Del
<u>Remove Orphans</u>	Ctrl+Del
<u>Contact Sheets</u>	Ctrl+F9

### ***Thumbnail | Make F2***

This option does the hard work of ThumbsPlus: it reads the graphic files selected in the **Image List** and reduces them to create thumbnails, and stores the thumbnails in the ThumbsPlus database. These miniature pictures of your graphics files make life with Windows easier by helping you find specific images or drawings quickly and easily.

To create or update thumbnails for all files in the current directory, use the menu option Thumbnails | Update All. To scan a disk drive for all recognized files, use Thumbnails | Scan Drive.

Unlike these other options, **Thumbnail | Make** does not check for updated files and always makes thumbnails, regardless of whether one is already on file.

***Thumbnail | Update All      Shift+F2***

This option creates or updates thumbnails for all recognized files in the current directory. If a thumbnail already exists for a file, its update date and time are checked against what is stored in the ThumbsPlus database. If the file has been modified since the thumbnail was made, it is regenerated from the file.

While running, a progress box displays which indicates how much of the work is complete. Click **Cancel** to quit making thumbnails. This progress box also contains a list box where any errors which occur are listed. These errors include the file name being "nailed" at the time of the error. If any errors occur, the progress box will remain until you click **OK**.

### ***Thumbnail | Scan Drive      Ctrl+F2***

When you select **Scan Drive**, ThumbsPlus examines all files on the current drive looking for files that it recognizes and creates a thumbnail for each of them. If a thumbnail already exists for a file, its update date and time are checked against what is stored in the ThumbsPlus database. If the file has been modified since the thumbnail was made, it is regenerated from the file.

While running, a progress box displays which indicates how much of the work is complete. This progress indicator is based on the total space in use on the drive, and is updated by the size of each file as it is examined. Since graphics files are usually grouped together, and different types of files take various amounts of time to analyze and reduce, this indicator does not really indicate the amount of progress made in *time*, but only how far through the disk ThumbsPlus has looked.

Click **Cancel** in the progress box to quit making thumbnails. This progress box also contains a list box where any errors which occur are listed. These errors include the file name being "nailed" at the time of the error. If any errors occur, the progress box will remain until you click **OK**.

Note that most CD-ROM disks have useless "total size" information stored on them, so the progress percentage is essentially meaningless for these drives.

***Thumbnail | Scan Tree      Ctrl+Shift+F2***

When you select **Scan Tree**, ThumbsPlus examines all files in the current directory and any of its sub-directories.

While running, a progress box displays which indicates how much of the work is complete. This progress indicator is based on the total space in use on the drive, and is updated by the size of each file as it is examined. Since graphics files are usually grouped together, and different types of files take various amounts of time to analyze and reduce, this indicator does not really indicate the amount of progress made in *time*, but only how far through the disk ThumbsPlus has looked.

Click **Cancel** in the progress box to quit making thumbnails. This progress box also contains a list box where any errors which occur are listed. These errors include the file name being "nailed" at the time of the error. If any errors occur, the progress box will remain until you click **OK**.

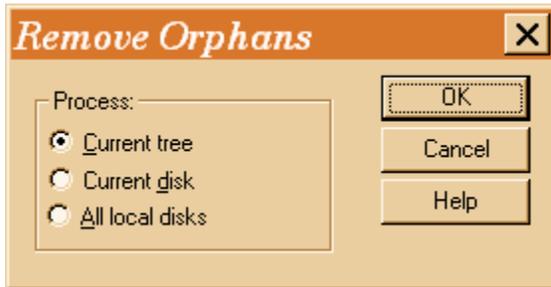
***Thumbnail | Remove SHIFTDELETE***

This menu selection removes all thumbnails that are selected. This option does **not** delete the corresponding files.

***Thumbnail | Remove Tree    Ctrl+Shift+DELETE***

This option removes all thumbnails for the current directory tree selected in the Directory List. The corresponding files are **not** deleted.

**Thumbnail | Remove Orphans**      **Ctrl+DELETE**



This selection will remove any "orphaned" thumbnails (those for files that have been deleted from another program) in the current directory tree or the current drive.

Orphaned thumbnails may also be removed automatically whenever you change to a directory by checked "Automatically remove orphans" in the Options | Preferences • General dialog box.

Some users prefer that orphans remain for removed files, especially those that have been archived.

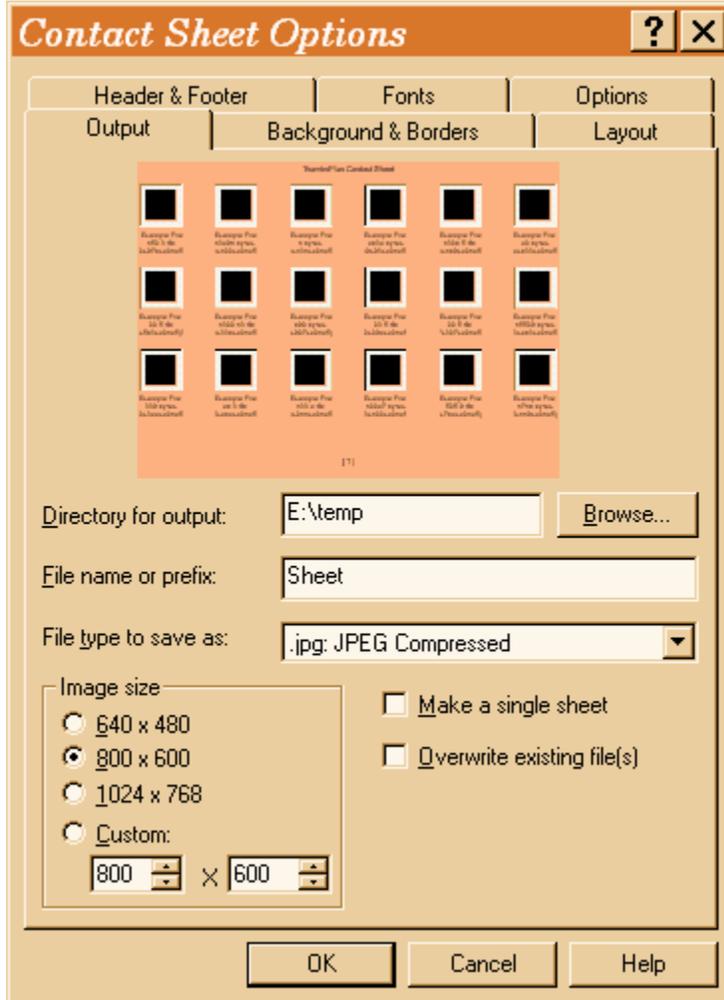
## ***Thumbnail | Contact Sheets***

ThumbsPlus will generate contact sheets (graphic files containing thumbnails) either from thumbnails already in the database or from the original files themselves.

There are many configuration options that you can set; these are covered in the various tabs shown below.

- Output
- Background & Borders
- Layout
- Header & Footer
- Fonts
- Options

## Thumbnail | Contact Sheets • Output



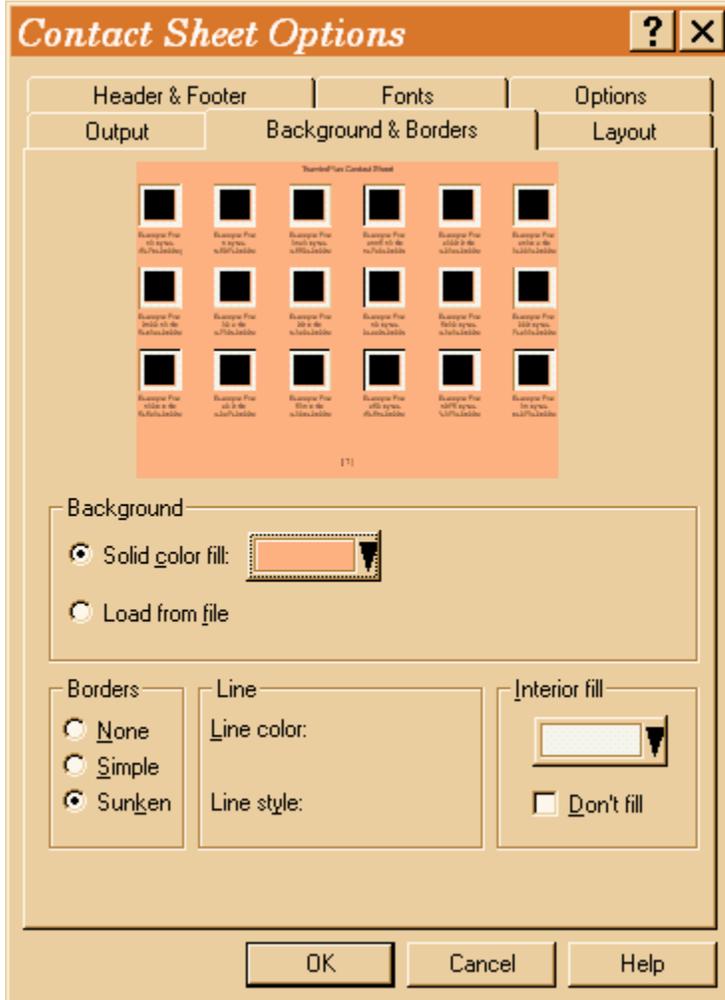
**Directory for output.** Select the directory for the contact sheets. Use the **Browse** button to find one.

**File name or prefix.** When a single sheet is selected, this field is used as the complete file name. When multiple sheets are created, this field is used as the file prefix, and a sequence number (001, 002, etc.) is appended.

**Overwrite existing files.** If this option is selected and the file already exists, it is overwritten.

**Image size.** Select a size (in pixels) for the contact sheets. Several standard choices are provided, or you may define a custom size.

## Thumbnail | Contact Sheets • Background & Borders



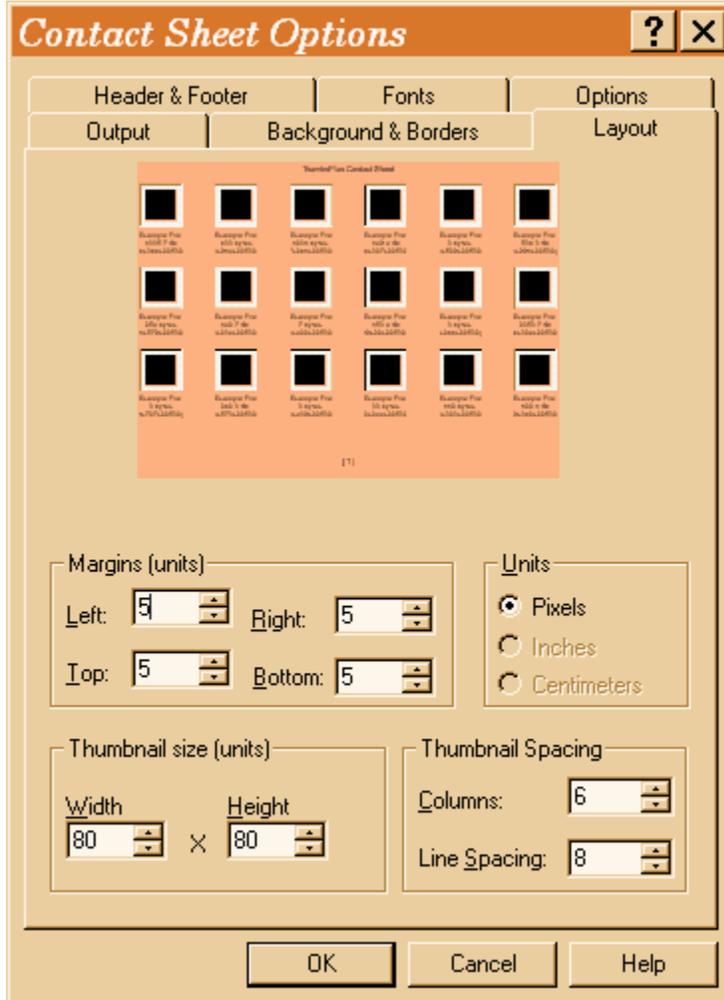
**Background.** Select the type of background. **Solid color fill** creates a background that is a single, solid color. **Load from file** allows you to use a graphics file as a background. If the file is smaller than  $\frac{1}{2}$  the dimensions of the contact sheet, it will be tiled. Otherwise, it will be stretched to fill the sheet.

**Borders.** Select the type of borders for the thumbnails.

**Line color.** Select the color for the borders (simple style only).

**Interior fill.** Select a color for filling the interior of the thumbnail boxes on the contact sheet. If "Don't fill" is selected, then the border will be placed around the thumbnail itself, rather than around the area reserved for it.

## Thumbnail | Contact Sheets • Layout



Use this tab to determine the layout on the page of the catalog.

**Margins.** Select the left, right, top and bottom margins.

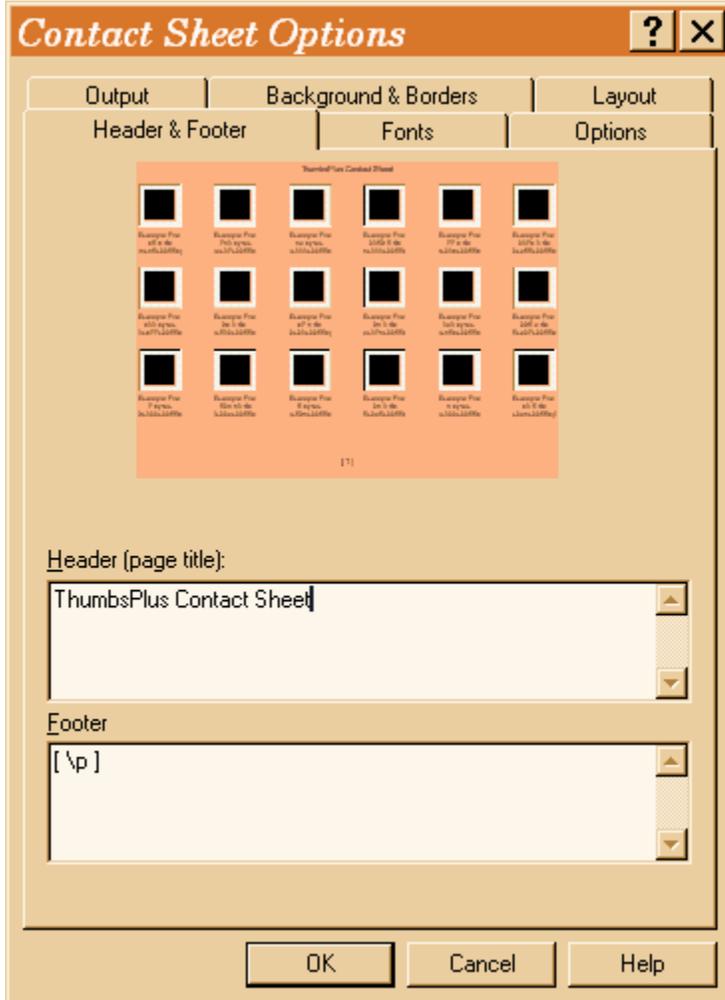
**Units.** Pixels are always used as the units for contact sheets.

**Thumbnail Size.** Selects the size of thumbnails to generate, in pixels.

**Columns.** Selects the number of columns of thumbnails to present.

**Line Spacing.** Selects the spacing (in pixels) between lines of thumbnails or text.

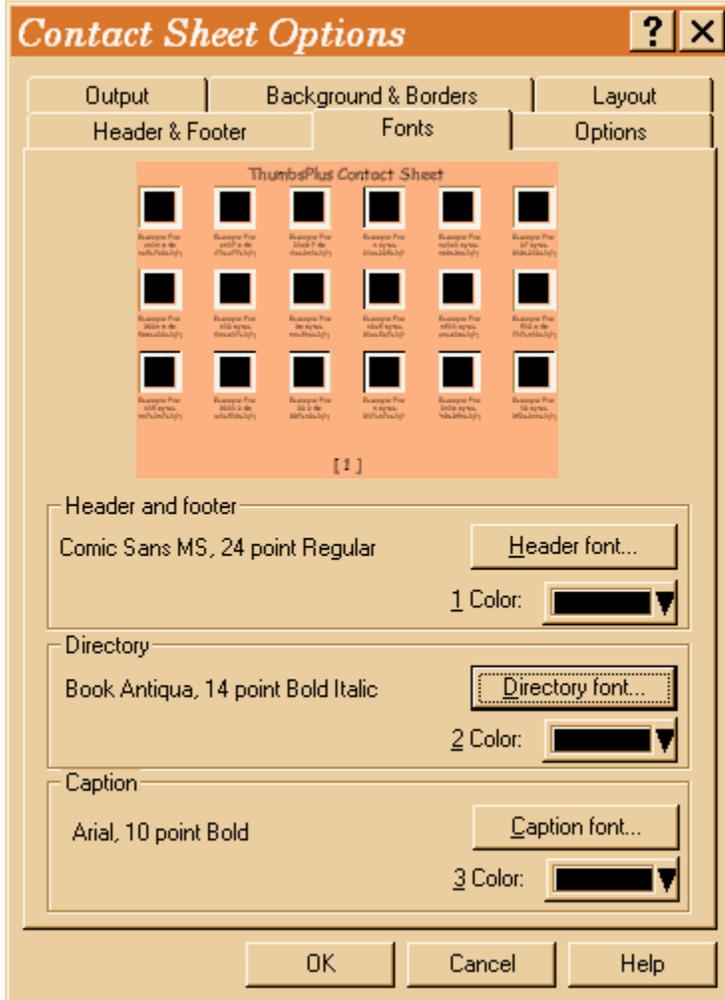
## Thumbnail | Contact Sheets • Header & Footer



Use this tab to enter a **header** and **footer** for the contact sheets. Each may be multiple lines, and may contain the following tokens that ThumbsPlus will use to substitute the appropriate value:

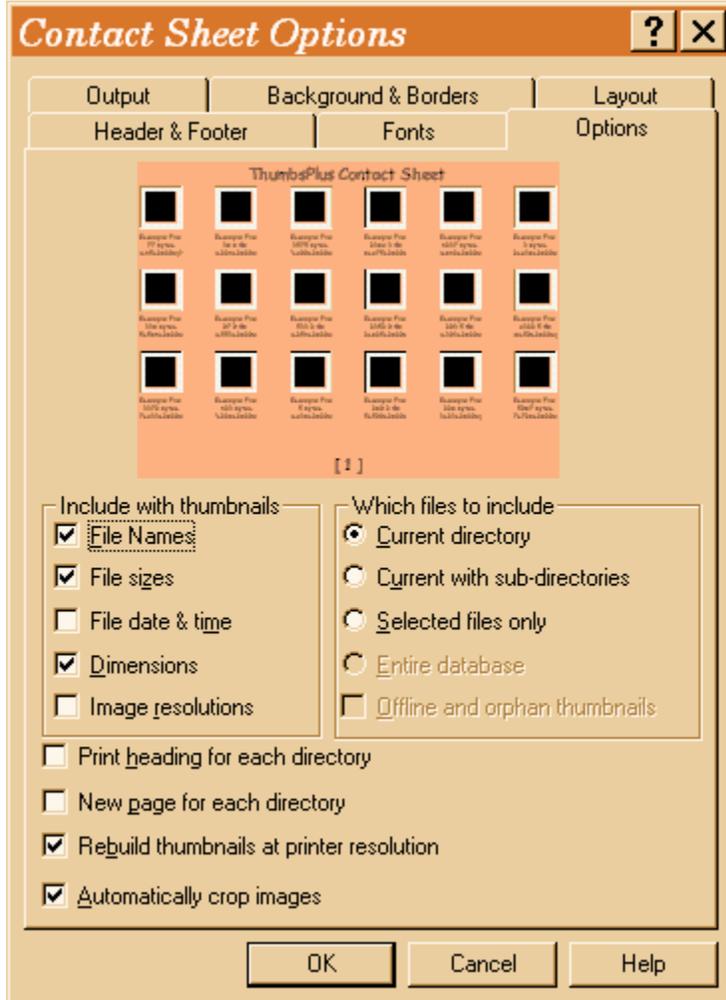
- \p** Page number.
- \d** Date
- \t** Time

## Thumbnail | Contact Sheets • Fonts



Use this tab to select the typefaces and text colors for the catalog printout. You can select separate fonts for the header and footer, directory entries, and thumbnail captions.

## Thumbnail | Contact Sheets • Options



The Options tab provides several choices for the contents of the contact sheets.

**Include with thumbnails.** Select the information about the thumbnails to include on the contact sheets.

**Which files to include.** Choose which files to include on the contact sheets.

**Print heading for each directory.** If this item is checked, then ThumbsPlus will print a heading for each directory included on the sheets. This heading will contain the volume and directory names.

**New page for each directory.** Check this option to cause ThumbsPlus to start a new sheet for each directory or sub-directory.

**Rebuild thumbnails at printer resolution.** Check this option for high-resolution thumbnails, which take longer to generate (the disk files must be read and reduced to the proper size), but are much higher quality.

**Automatically crop images.** Causes ThumbsPlus to automatically crop images before making

the thumbnails. This removes excess single-color borders from images.

## Options Menu

<u>P</u> references	Ctrl+P
<u>F</u> ont	Ctrl+Y
<u>F</u> ile <u>L</u> oading	Ctrl+L
<u>C</u> ustomize <u>T</u> oolbar	Ctrl+B
Save for Startup	
<u>D</u> irectory <u>P</u> ath	Ctrl+Shift+D
<u>T</u> ree size and options	Ctrl+Shift+T
<u>I</u> nitial <u>D</u> atabase	Ctrl+Shift+E
<u>W</u> indow size & <u>p</u> os	Ctrl+Shift+P
Database	
<u>E</u> dit <u>K</u> eywords...	
<u>S</u> tatistics	Ctrl+T
<u>T</u> humbnail <u>S</u> ize	
(50%, 100%, 150%, 200%)	
<u>S</u> ort <u>B</u> y	
(Name, Type, Size, Date, Descending)	
<u>S</u> how for <u>F</u> iles	
(Thumbnail, Name, Size, Date Dimensions, Resolution, Include Hidden)	

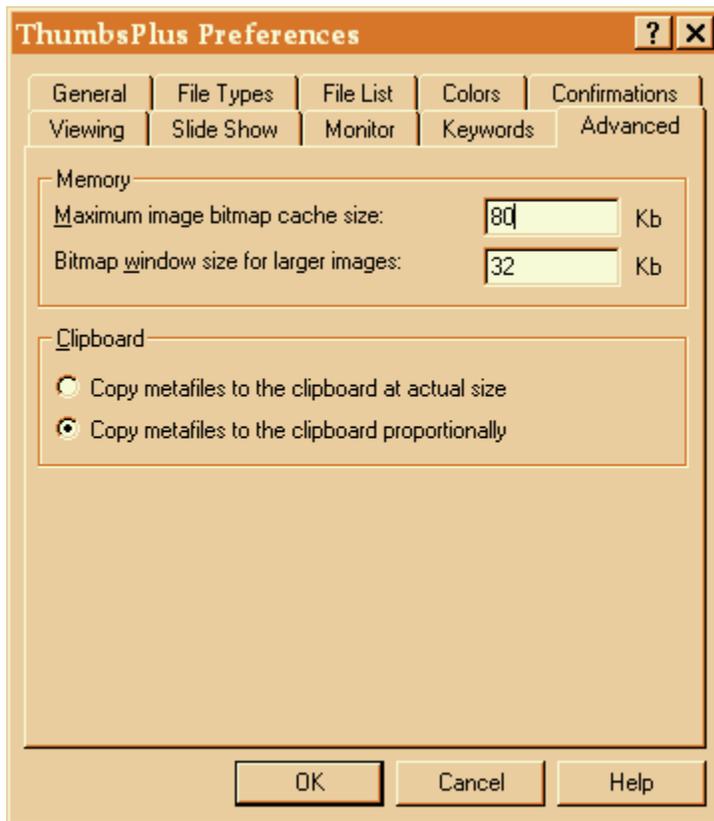
## ***Options | Preferences Ctrl+P***

This selection opens a tabbed dialog box with a tab for each of several categories of options that you can control.

- General
- File Types
- File List
- Colors
- Confirmations
- Viewing
- Slide Show
- Monitor
- Keywords
- Advanced

## Options | Preferences • Advanced

Use this tab to select modify several advanced parameters for ThumbsPlus.



**Maximum image bitmap cache size.** For images that require less than this much memory to load, ThumbsPlus maintains an image bitmap to speed up repainting when the image must be displayed. This size is based on the in-memory size of the image, not the disk size of the image file.

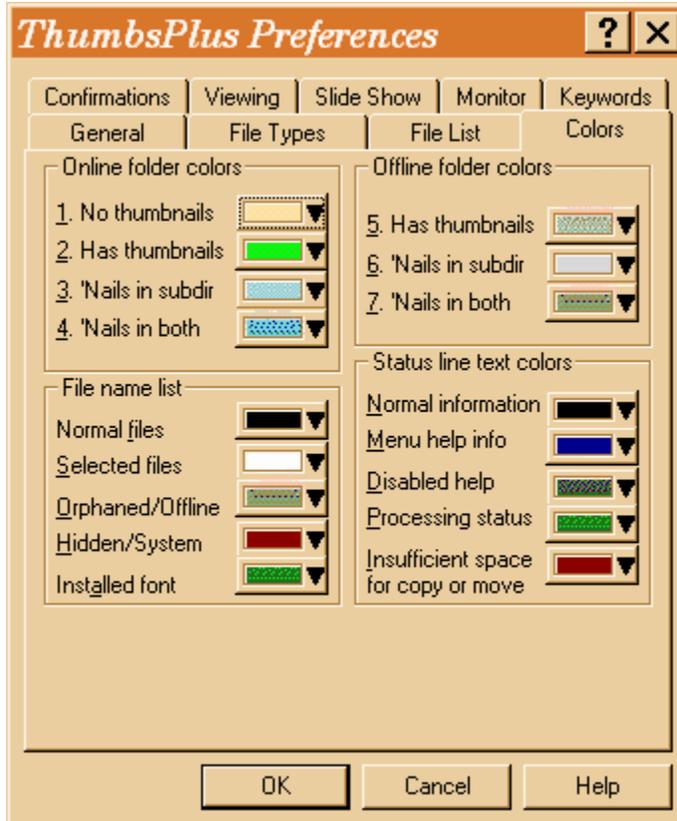
**Bitmap window size for larger images.** For images larger than the maximum bitmap cache size, ThumbsPlus uses a bitmap "window" to display the image a piece at a time. This parameter selects the size, in Kbytes, of that window.

**Copy metafiles to the clipboard at actual size.** Some applications do not handle proportional metafiles from the clipboard well. If you find metafiles pasted into other applications upside down or at really unusual sizes, select this option.

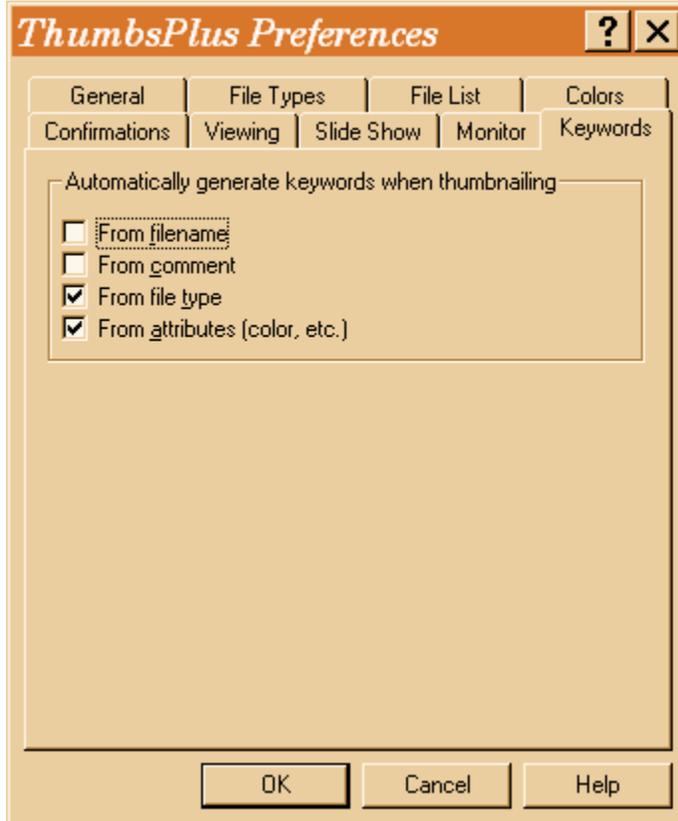
**Copy metafiles to the clipboard proportionally.** This option works for most applications. If metafiles are pasted very large when actual size is set, try proportional instead.

## Options | Preferences • Colors

Use this tab to select the colors for the various ThumbsPlus user interface elements. To modify a color, simply click on the button and select a new color from the list. You may use the mouse or the keyboard (arrow keys and Enter) to select a color.



## Options | Preferences • Keywords



ThumbsPlus can automatically generate keywords for images when making thumbnails. Use the selections in this tab to control that process.

**From Filename.** Assigns a keyword based on each word in the filename of each image.

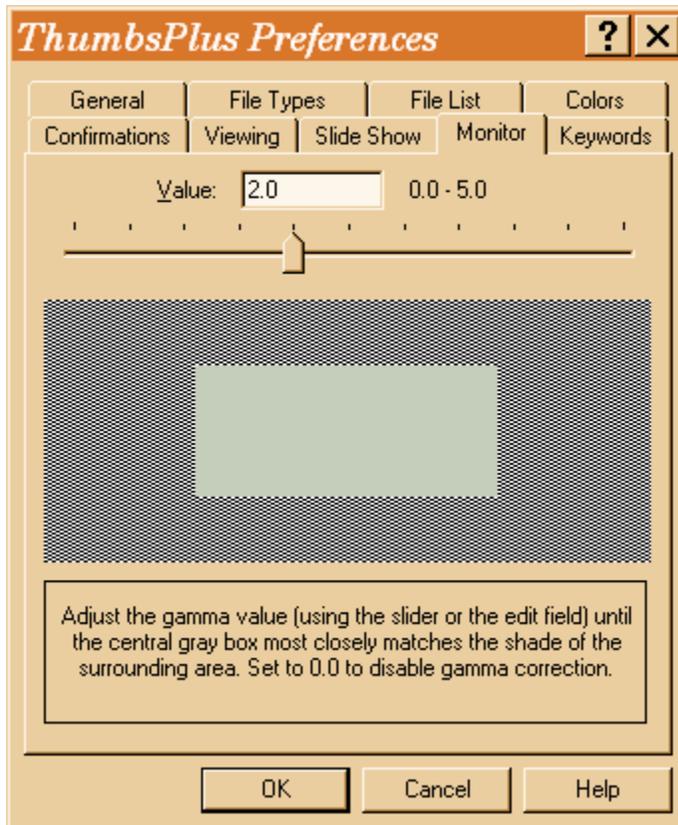
**From comment.** Assigns keywords based on each word in the comments residing in each image (for GIF, JPEG and TIFF file types).

**From file type.** Assigns a keyword based on the file type of each file (i.e., .JPG).

**From attributes (color, etc.).** Assigns a keyword for color and encoding attributes of the file; for example: raster, vector, palette, RGB, grayscale.

## Options | Preferences • Monitor Gamma

This tab allows you to calibrate the gamma correction value for your monitor. A gamma value of 0.0 means that ThumbsPlus will not gamma correct any image.

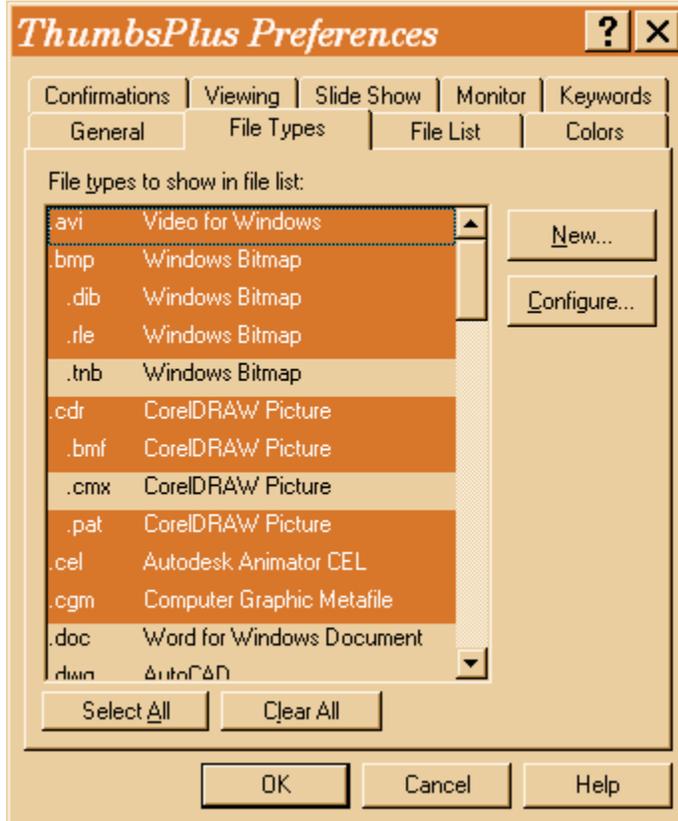


Simply adjust the scroll bar, using either the arrows at the ends or by dragging the central box, until the central gray square is as close as possible to the color of the surrounding pattern. For best results, calibrate in a darkened room.

As some monitors exhibit different characteristics at different display resolutions and color depths, ThumbsPlus will save a different gamma value for each combination.

Some image types have a specific gamma value for which they are corrected (for example, GIF files are corrected for a monitor gamma of 2.0). If you choose to use gamma correction, you need to set each type appropriately, from the Assumed Gamma dialog box. Unless this value is set for a specific file type, it will not be adjusted.

## Options | Preferences • File Types



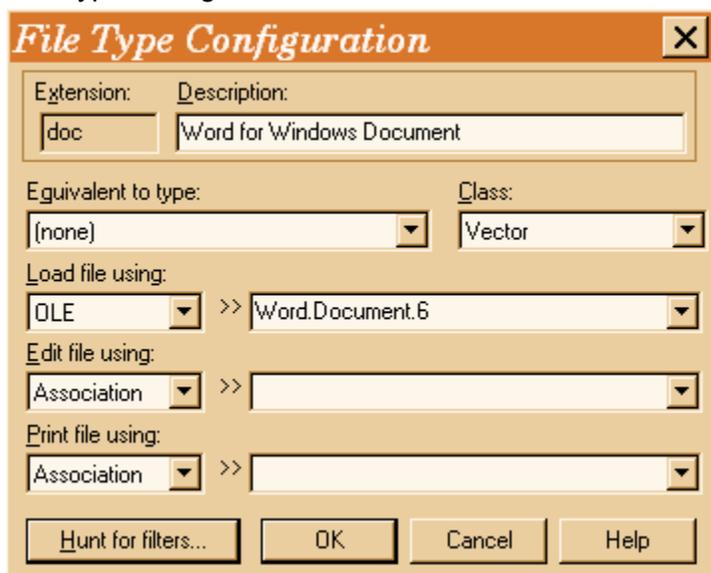
**New.** Runs the File Type Configuration dialog box so you can define a new file type for ThumbsPlus to handle.

**Configure.** Runs the File Type Configuration dialog box to change the configuration of a specific file type.

**Select All.** Select this option to show all configured file types in ThumbsPlus. Files that are not recognized will not have thumbnails, but you can move, copy, delete and rename these files.

**Clear All.** Select this option clear all selected file types, so you can start selecting from scratch.

## File Type Configuration



This dialog box, which is accessed from the Options | File Types dialog box using the **New** or **Configure** button, allows you to define a new file type for ThumbsPlus to support, or to modify the configuration of a specific type.

ThumbsPlus can recognize any file type it supports internally, regardless of its specific name or extension. However, for files accessed through external filters or OLE, the extension may be important.

**Extension.** Enter the one, two or three character extension (without the period) for the file type to define.

**Description.** Enter a description of the file type. If the file type is equivalent to another (see below) you can leave the description blank --ThumbsPlus will automatically use the description of the base file type.

**Equivalent to type.** If the file type is equivalent to a type already known to ThumbsPlus, select that type here. This will disable most of the other entries in the dialog box, since the access to the type is defined through its base type.

**Class.** Select the type of file. For most purposes, Vector and Raster are appropriate. Several of the types give more information about the type of file and may be useful for categorizing OLE-based files. OLE-based types not classed as Raster are loaded as Vector.

**Load file using.** Select the method that ThumbsPlus should use to load the file:

**Internal** - ThumbsPlus should use its internal loading routines to load the file. The file must be recognizable by ThumbsPlus.

**Filter** - Use a Aldus Rev. 1 filter to load the file. The next field (>>) should be used to select the filter; if the list is blank, use the Hunt for filters button to search for filters on your system.

**OLE** - ThumbsPlus should attempt to attach to an OLE server for the file type to render it as

a metafile or bitmap. Select the appropriate server from the next (>>) field.

**None** - ThumbsPlus should not attempt to load the file. It can still be shown in the file list, with an appropriate icon, if Edit Using is set to Association.

**Edit file using.** Select the method that ThumbsPlus should use to edit the file. Note that raster images may be edited to some degree from within a ThumbsPlus view window.

**Association** - Use the Windows File Manager association, as registered by File Manager, to launch the program to edit the file. If you don't select a specific item from the next list (>>), ThumbsPlus will use the file extension to attempt to locate an association.

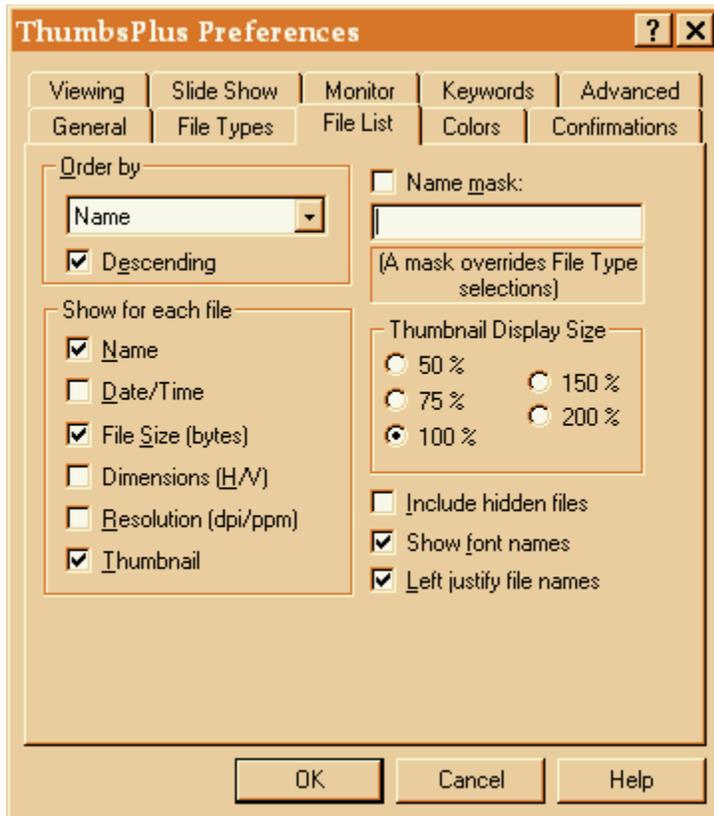
**Command** - Enter a specific command to edit the file. You can use '%F' in the string as a token to be replaced by the file name.

**None** - Don't attempt to launch an editor for this file type.

**Print file using.** Select a method for printing the file type. If it can be loaded into ThumbsPlus, the **Internal** method usually works best. Otherwise, you may select **Command** or **Association**, as described under **Edit File Using**.

## Options | Preferences • File List

This option displays a dialog box from which you can control the display of the file list and thumbnails in ThumbsPlus. Note that many of these options can be controlled more quickly using the [Options | Thumbnail Size](#), [Options | Sort By](#), and [Options | Show for Files](#) menu selections.



**Order by.** Selects the order in which files are displayed in the file list. You can sort by name, extension, size or date. You can also change the sort method using the [Options | Sort by](#) menu.

**Show for each file.** Select the items you wish to view for each file. These items may also be selected using the [Options | Show for files](#) menu.

**Name mask.** Check this box and enter a mask to select files based on a mask rather than on the types selected in the [File Type](#) dialog box.

**Thumbnail display size.** ThumbsPlus can enlarge or reduce the thumbnails on the fly. This is especially useful for very high resolution displays (1240x1024 and higher), or if you want to see a lot of thumbnail simultaneously. Select the desired thumbnail size here. The stretching operation makes the file list display slightly slower. The options available are 50%, 75%, 100%, 150% and 200%. This selection may also be made from the [Options | Thumbnail size](#) menu.

**Include hidden files.** Causes ThumbsPlus to display system and hidden files in addition to normal files.

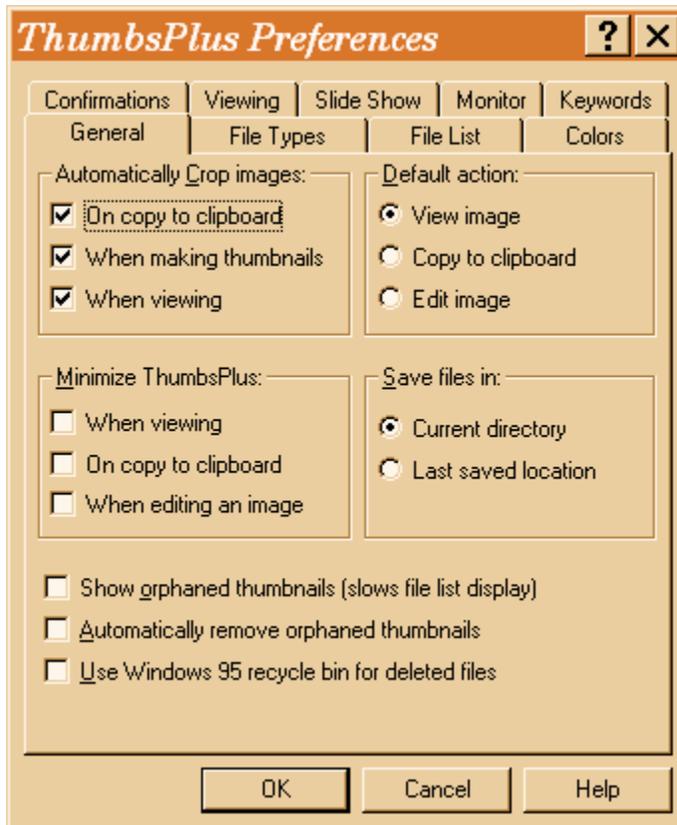
**Show font names.** When this is selected, ThumbsPlus will scan TrueType font files and load the

font names. It will display these instead of the file names. Additionally, the font names will be green if the font is installed.

**Left justify file names.** Selecting this option will display the file names left-justified under the thumbnails, rather than centered.

## Options | Preferences • General

This option displays a dialog box which allows you to set the parameters for the operation of ThumbsPlus



**Automatically Crop Images.** Automatically crops, by removing all continuous border of the same color, any image. This may be on or off for each of the following operations:

- On copy to clipboard
- When making thumbnails
- When viewing

**Default Action.** Selects the default action (taken for a double-click with the left mouse button). Select one of the following operations:

- View Image
- Copy to Clipboard
- Edit Image

**Minimize ThumbsPlus.** Selects times when you would like the ThumbsPlus main window to automatically reduce to an icon for less screen clutter; similar to the *Minimize on Use* option in the program manager. You may elect to minimize ThumbsPlus at any of the following times:

- When viewing
- On copy to clipboard

When editing an image

**Save files in.** Using this option, you can select the default location for any "Save as" operation from a view window. Selecting **Current directory** will use the current path from the main ThumbsPlus window, while selecting **Last saved location** will remember each time you save a file, and use that location as the default the next.

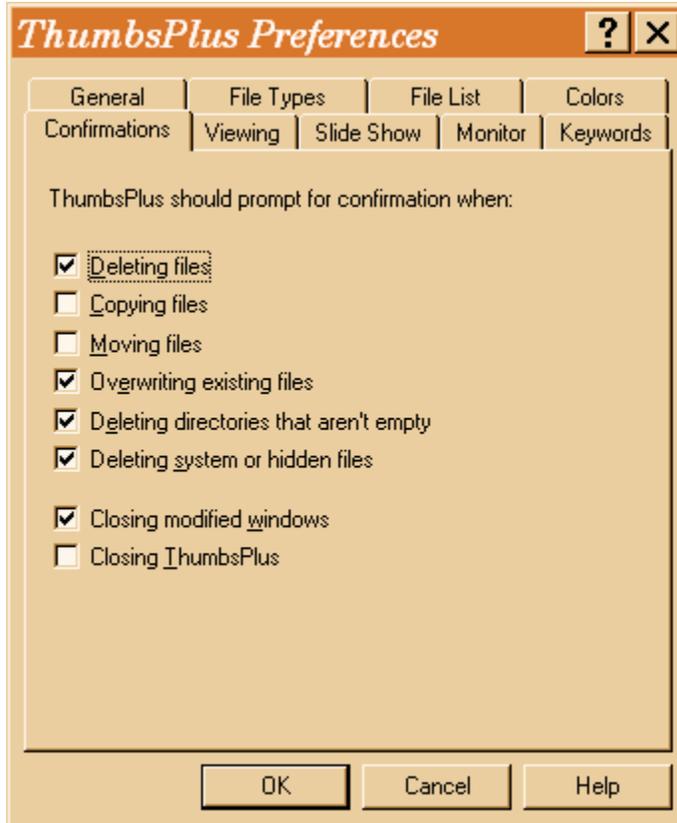
**Show orphaned thumbnails.** Orphaned thumbnails (thumbnails for files which have been removed or moved by another program) can be shown in the file list; however, this option slows the file list display as ThumbsPlus scans the database for any entries which do not have corresponding files on disk.

**Automatically removed orphaned thumbnails.** Selecting this will cause ThumbsPlus to scan for orphaned thumbnails (thumbnails for files that have been removed from another program) whenever you change directories, and automatically remove them. You may instead remove orphans manually using the Remove Orphans option on the Thumbnail menu.

**Use Windows 95 recycle bin for deleted files.** This option tells ThumbsPlus to move deleted files to the Recycle Bin, rather than directly removing them from the disk. This option is available only on Windows 95.

## Options | Preferences • Confirmations

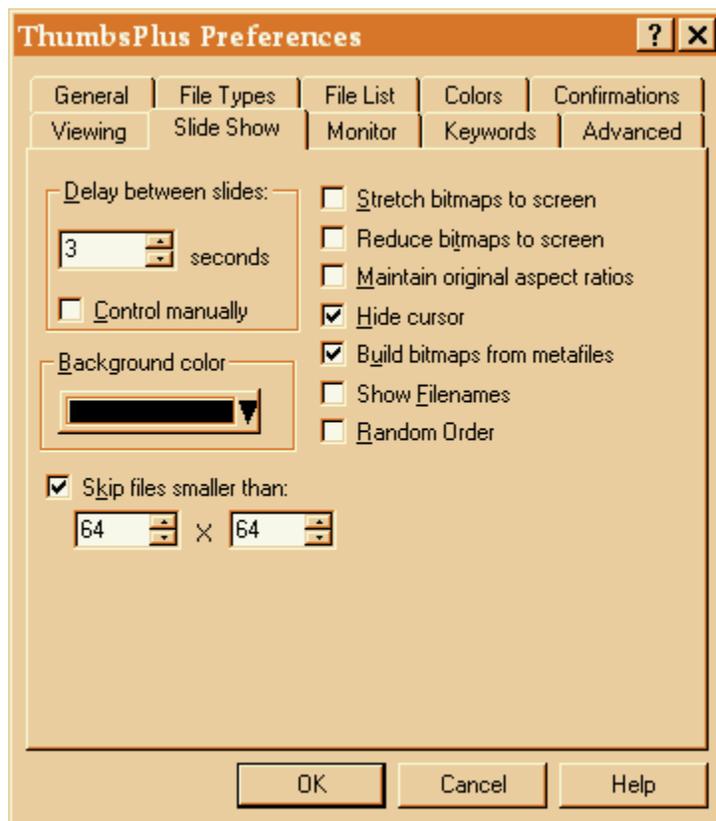
This menu selection allows you to configure which items ThumbsPlus prompts for confirmation. For example, if you want ThumbsPlus to make sure before deleting files, that option should be checked. The dialog box looks like this:



Each option determines whether or not ThumbsPlus will display a dialog box to confirm the listed operation after it is selected.

## Options | Preferences • Slide Show

This dialog box allows you to control the operation during a Slide Show.



**Delay between slides.** Select either a number of seconds that ThumbsPlus will wait between slides, or mark the **Control manually** checkbox to manually switch slides (using the left mouse button or the space bar).

**Background color.** Select the background color to use for images smaller than the screen.

**Skip files smaller than.** When selected, ThumbsPlus will not display raster images smaller than the entered size (width and height).

**Stretch bitmaps to screen.** Causes ThumbsPlus to stretch images to fill the screen as much as possible.

**Reduce bitmaps to screen.** Similar to "Stretch," except that only bitmaps larger than the screen are resized. Bitmaps smaller than the screen size are centered.

**Maintain original aspect ratios.** When stretching bitmaps, ThumbsPlus will ensure that the width-to-height ratio remains constant, rather than distorting the image.

**Hide cursor.** Hides the mouse cursor during the slide show.

**Build bitmaps from metafiles.** When this checkbox is selected, ThumbsPlus will build an in-memory bitmap from a metafile before displaying it. This eliminates watching the metafile draw.

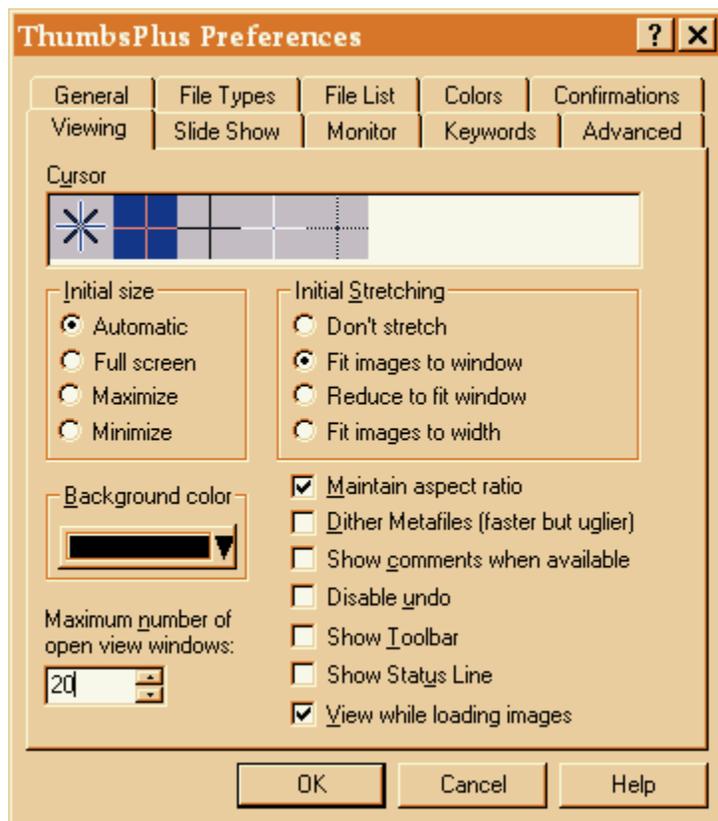
**Show filenames.** ThumbsPlus will display the file name (at the bottom of the screen) of each file

as it displays in the slide show.

**Random order.** The list of file names will be shuffled before the slide show begins.

## Options | Preferences • Viewing

You control the operation of viewing files with this dialog box.



### Initial Size:

**Automatic.** The size of the view window is based on the size of the image or metafile being displayed.

**Full Screen.** The entire screen is used to display the picture, without menu bar or caption. See [View | Full Screen](#) for more information on this mode.

**Maximize.** The window is maximized.

**Minimize.** The window is iconized.

### Initial Stretching

**Don't stretch.** The image is not initially stretched.

**Fit images to window.** The image is always stretched or reduced to fill as much of the window as possible (depending on the setting for **Maintain aspect ratio**).

**Reduce to fit window.** Initially, the image will be set to **Stretch to fit** mode only if the image is larger than the window ThumbsPlus creates for it. Otherwise, the image will be centered.

**Fit images to width.** The width of the image will be stretched to fit the width of the window. This is especially useful for documents in portrait orientation (higher than wide).

**Background color.** Select a background color for the sides or top if the window is larger than the image.

**Maximum number of open view windows.** Selects the maximum number of View windows which ThumbsPlus can manage at one time. Select a number between 2 and 40. Once this limit is reached (approximately), ThumbsPlus will close the oldest window before opening another.

**Maintain aspect ratio.** The ratio between the width and height of the image is kept constant, to avoid distorting the image.

**Dither Metafiles.** Windows Metafiles generally include 24-bit color information. On 256-color palette-based displays, these colors will be dithered. ThumbsPlus generates (up to) 236-color palettes for displaying metafiles, resulting in much smoother displays. However, generating the palette and modifying the metafile display to take it into account slows the display process down. Select this option if you are in a hurry. Also select this option if you are using a 16-color or 24-million color display driver, or if you get strange results displaying or thumbnailing metafiles.

**Show comments when available.** If an image has comments stored with it in the file, selecting this option will cause ThumbsPlus to automatically display them. The View | Edit Comments window displays automatically whenever you view an image with comments. ThumbsPlus can read comment fields from GIF, JPEG and TIFF files.

**Disable Undo.** If you select this option, ThumbsPlus will not save the information necessary to undo image operations. This will speed up edit time and require less memory and temporary disk space.

**Show Toolbar.** When you check this item, ThumbsPlus will automatically create a toolbar for each view window.

**Show Status line.** When you check this item, ThumbsPlus will automatically create a status line for each view window.

**View while loading images.** This option causes ThumbsPlus to display the view window while loading each image, so you can see the image as it loads. On some displays, this may make the load take a bit longer.

### ***Options | Font***

This selection allows you to select a font for display of the directory list, file list and status line. Note that the same font is used for all of these user interface elements.

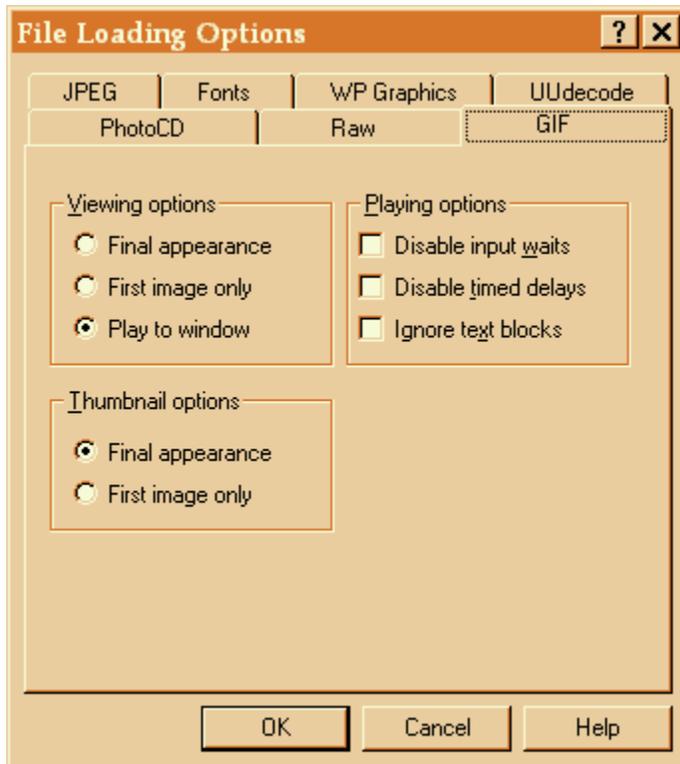
***Options | File Loading      Ctrl+L***

This dialog box provides options for loading several of the file types. Each of the tabs (listed below) provides configuration options for a specific file type.

- JPEG
- WP Graphics
- TrueType Fonts
- PhotoCD
- GIF
- Raw
- UUdecode

## Options | File Loading • GIF

This tab sets the options for loading GIF files. *This tab is not available on Windows 3.1 systems, where only the first image is loaded.*



**Viewing options.** Select how ThumbsPlus displays GIF files.

**Final appearance.** Only the final appearance of an animated GIF file is displayed; intermediate frames are played in memory, but only the final images shows in the view window.

**First image only.** The first graphic image from the GIF file is loaded. This was the behavior before version 3.0c, and is the only option available for Windows 3.1.

**Play to window.** An animated GIF file plays into the view window so you can see the changes as they would appear in Netscape or any other browser. You can set several playing options (below) to control how the animation progresses. Looping (as in Netscape) is not supported; the animation plays only once.

**Playing options.** Select how ThumbsPlus plays GIF files (options for **Play to window**).

**Disable input waits.** GIF files can have blocks which specify that the animation should wait for user input. This option disables those waits.

**Disable timed delays.** GIF files can have specific timed delays between image or text displays; this option will ignore such delays and play frames as fast as possible.

**Ignore text blocks.** This option causes ThumbsPlus to ignore any displayable text blocks in the GIF file.

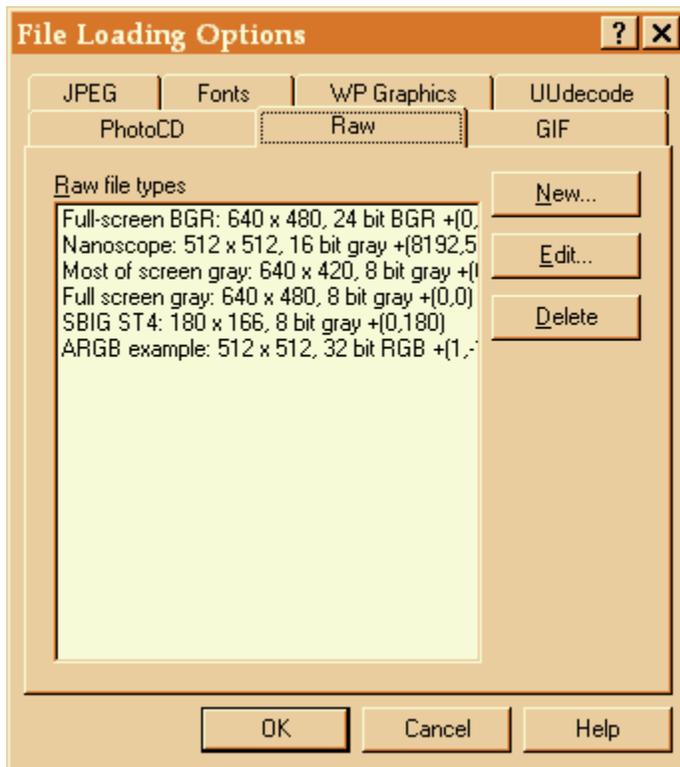
**Thumbnail options.** Select the disposition of GIF files to use for making thumbnails.

**Final appearance.** The thumbnail is generated from the appearance of the GIF file after all frames have played.

**First image only.** Only the first image is used to generate the thumbnail.

## Options | File Loading • Raw

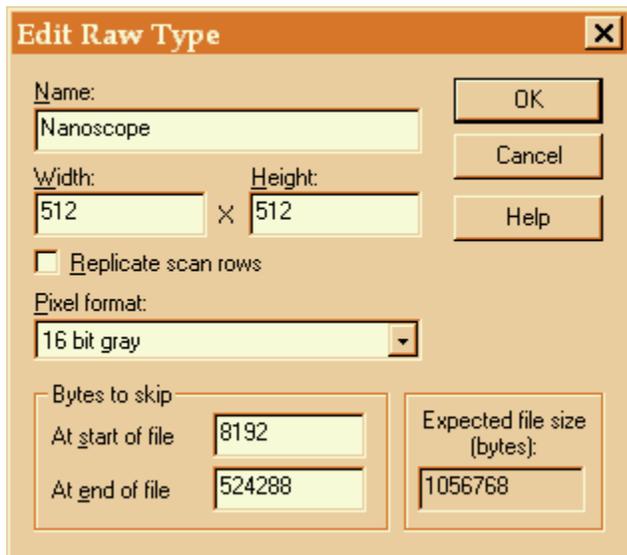
This tab sets the options for loading raw grayscale or RGB files.



**Raw file types.** This is a list of all defined raw file formats. You may select an item from this list, then click **Edit** to modify it or **Delete** to remove it. You can click **New** to add a new raw format. Both Edit and New use the Edit Raw Type dialog box to configure the file type.

## Edit Raw Type

Use this dialog box to add a new raw file type, or to modify an existing raw type.



**Name.** Select a name for the format.

**Width.** The width of the image, in pixels.

**Height.** The height of the image, in pixels.

**Replicate scan rows.** Some raw types (notably some files generated by ocular cameras) store only every other scan line (i.e., the pixel shape is rectangular). This option will cause ThumbsPlus to write each scan line twice, restoring the proper aspect ratio.

**Pixel format.** Select the style of pixels in the raw image. ThumbsPlus can handle several pixel formats directly:

- *8-bit gray.* Each pixel of the image is represented by a single byte which represents the level of gray. Pixel values range from 0 (black) to 255 (white).
- *16-bit gray.* Each pixel is represented by two bytes, with the least significant byte first (Intel byte order). Pixel values range from 0 (black) to 65535 (white).
- *16-bit gray (swap).* Each pixel is represented by two bytes, with the most significant byte first (Motorola format). Pixel values range from 0 (black) to 65535 (white).
- *24-bit RGB.* Each pixel is represented by three bytes: one byte each for red, green and blue, in that order.
- *24-bit BGR.* Each pixel is represented by three bytes: one byte each for blue, green and red, in that order.
- *32-bit RGB.* Similar to 24-bit RGB, except that each pixel is represented by four bytes. The fourth byte is usually an alpha channel, which is ignored by ThumbsPlus.
- *32-bit BGR.* Like 24-bit BGR, except that a fourth byte is present (usually an alpha channel) which is ignored by ThumbsPlus.

*Note:* By default, the alpha channel (ignored by ThumbsPlus) is assumed to be the fourth byte in 32-bit RGB or BGR formats. However, if your files are stored in ARGB or ABGR order, you can set the Bytes to Skip at start to one (1), and the Bytes to Skip at end to minus one (-1). This will cause ThumbsPlus to ignore the first byte in each four-byte pixel, rather than the last.

**Bytes to skip.** Some raw formats contain extra data at the beginning or end of the file, or both. Use these fields to enter the amount of data to skip at the start or end of the file.

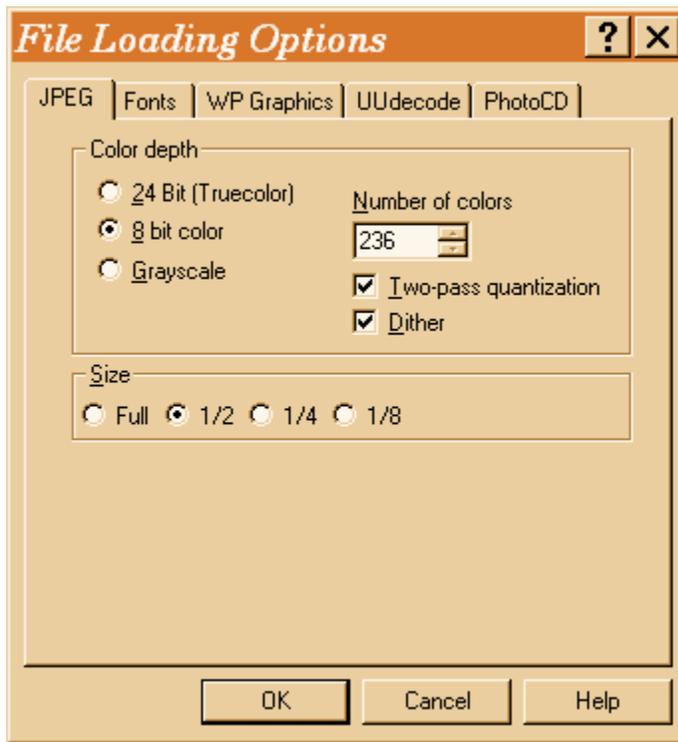
**Expected file size.** Using the entries in the other fields, ThumbsPlus computes the expected size on disk of the defined type and displays it here. For ThumbsPlus to recognize the file, its size must match this value.

*Note:* In order for ThumbsPlus to recognize a file as a defined raw type, two criteria must be met:

- 1** The image information must be defined so that the file size matches the "expected file size" as described above.
- 2** The file extension must be defined (using Options | Preferences • File Types) as "equivalent to" the .RAW type.

## Options | File Loading • JPEG

This tab sets the options for loading JPEG files.



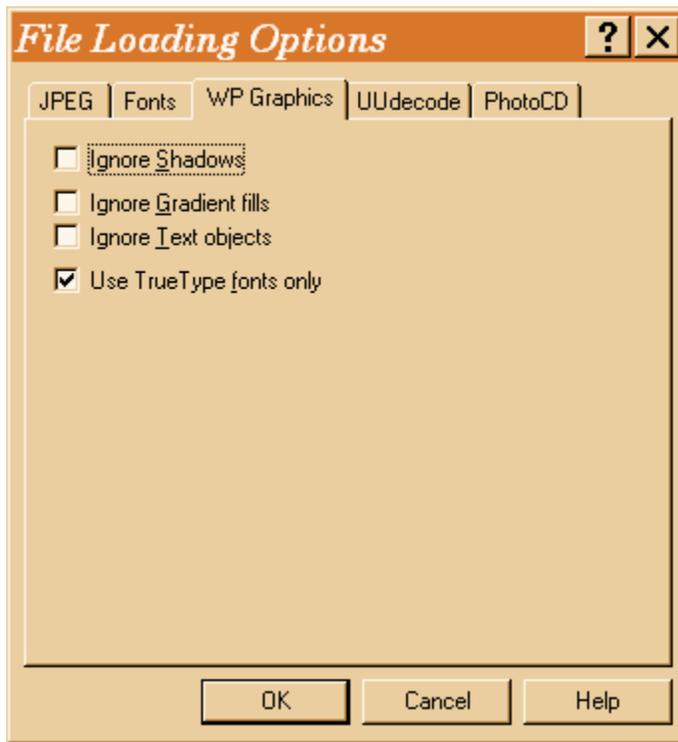
The JPEG library allows you to select how to load JPEG files. JPEG files are always stored as 24-bit (truecolor) images, but the library can automatically dither them to 8-bits for displaying on 256-color devices. This dithering will interfere with editing, however: if you want to edit JPEG files on an 8-bit display, it is best to load them as Truecolor even though they don't look as nice. In other words, on an 8-bit (256 color) display, JPEGs are best loaded for *viewing* as **8-bit color**, but best loaded for *conversion or editing* as **24-bit (Truecolor)**. For quick viewing on 8-bit displays, load them as **Grayscale**.

The **Two-Pass Quantization** and **Dither** options apply only if loading as 8-bit color; deselecting either or both will speed the load and conversion to 8-bit, at a sacrifice in appearance. The JPEG load dithering is similar to the Floyd-Steinberg dithering available as an option in the Color Depth dialog box.

The **Full**, **1/2**, **1/4** and **1/8** size options allow you to load a JPEG file at smaller than its actual dimensions. This speeds up loading considerably, and allows you to load files that are too large for your system's memory configuration.

## Options | File Loading • WP Graphics

Use this tab to set options for rendering WordPerfect graphic (WPG) files.



**Ignore Shadows.** If this box is checked, ThumbsPlus will not render object shadows in WPG files. This may speed processing, and may make files easier to edit in other (non-WP) applications.

**Ignore Gradient fills.** If this box is checked, ThumbsPlus will not render gradient fills. This will greatly speed processing and reduce the size of resultant metafiles (either copied to the clipboard or saved to disk).

**Ignore Text objects.** Check this box if you don't want text information in WPG files rendered.

**Use TrueType fonts only.** Check this box to force ThumbsPlus to select a TrueType font for any text in WPG files. This option is meaningless if **Ignore Text Objects** is checked.

## Options | File Loading • TrueType Fonts

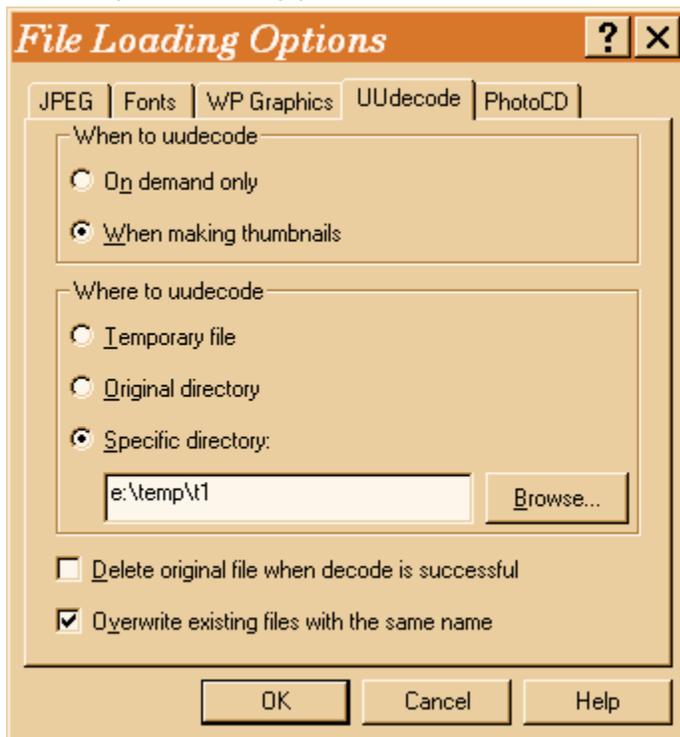
Use this tab to control the actions taken when ThumbsPlus thumbnails and views TrueType fonts.



**Thumbnail Sample Text.** This text is used to create the thumbnail for the font. By default, this is blank and the font name alone is used to create the thumbnail.

**Include Font Name.** Checking this box causes ThumbsPlus to use both the sample text above and the name of the font for the thumbnail.

**Window Sample Text.** This text is displayed at the bottom of the font view window to show an example of how the text looks with several characters together.



### When to uudecode

**On demand only.** ThumbsPlus will uudecode files only when double-clicked to view. This limits the times that ThumbsPlus processes the files.

**When making thumbnails.** ThumbsPlus will uudecode when making thumbnails.

### Where to uudecode.

**Temporary file.** ThumbsPlus will uudecode into a temporary file, which will be removed after the thumbnail is made or image viewed.

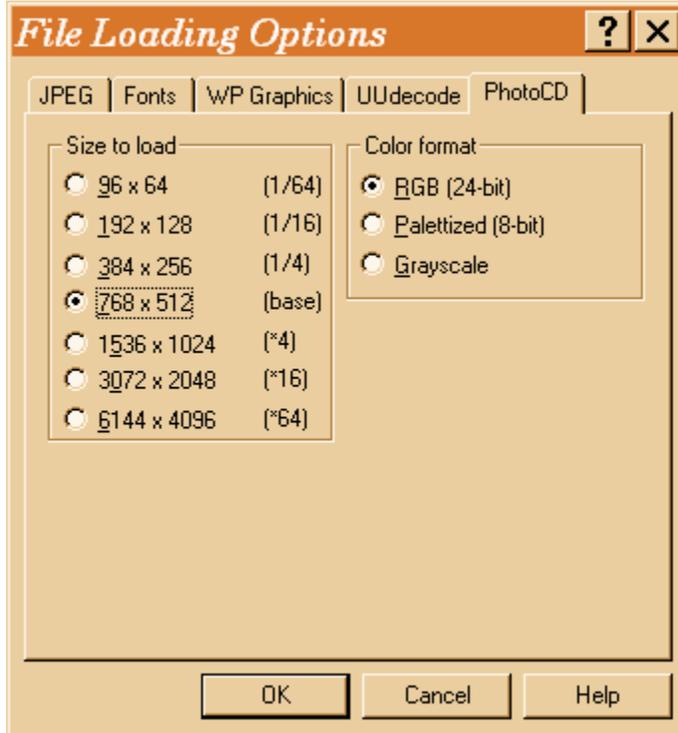
**Original directory.** ThumbsPlus will uudecode into the original directory (where the UUE file resides), using the file name specified in the UUE file.

**Specific directory.** ThumbsPlus will uudecode into a specific directory, using the file name specified in the UUE file. You can use the **Browse** button to select a directory.

**Delete original file when uudecode is successful.** ThumbsPlus will remove the .UUE (or .001) and subsequent (.002, etc.) files after successfully decoding the file. Should the decode produce any warnings or errors, the original will not be removed. This option is not available when decoding to temporary files.

**Overwrite existing files with the same name.** ThumbsPlus will automatically overwrite any file of the same name. This option is not available when decoding to temporary files.

## Options | File Loading • PhotoCD



This tab selects the options for loading PhotoCD images.

The **Size to load** section allows you to select the desired size of the loaded image. Note that the horizontal and vertical sizes will be reversed for images stored in portrait orientation.

The **Color format** section allows you to select the color resolution of the loaded image.

## Options | *Customize Toolbar*

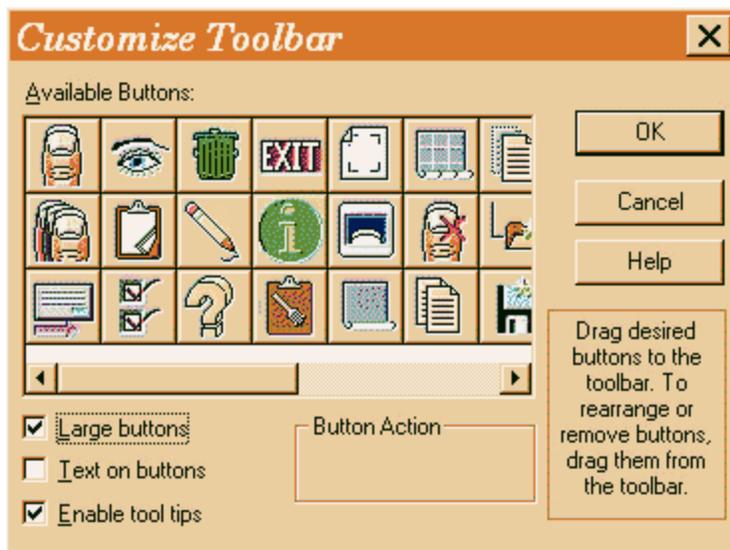
Use this dialog box to configure the ThumbsPlus toolbar to your liking. Most menu commands are available as toolbar buttons; simply drag the ones you want to the place you want on the toolbar.

You can also move buttons on the toolbar, or drag them completely off to remove them. Buttons may only be on the toolbar once – if you add a button a second time, it will move to the new position.

You may make two rows of buttons, but the second row will not display properly until you select OK to save your changes.

You may also double-click the toolbar to open this dialog box.

There is no keyboard interface for customizing the toolbar (toolbars are for mouses, aren't they?).



**Available buttons.** Shows the buttons available for the toolbar. Drag a button to the toolbar to add it.

**Large buttons.** Selects the larger size of toolbar button (32x32 pixels), versus the small version (20x20 pixels).

**Text on buttons.** Adds descriptive text (as in Tool Tips) to each button. This makes the buttons quite a bit larger.

**Enable Tool Tips.** Enables tool tips, which will describe each button if you leave the cursor over it for about a second.

***Options | Save for Startup | Directory Path Ctrl+Shift+E***

This option saves the current directory as the startup directory for the current database; whenever you open this database, ThumbsPlus will position to the current directory. This helps, for example, if you have a "Fonts" database, and a directory containing fonts. You can set the startup directory for the Fonts database to the Fonts directory, so that you don't have to click around in the directory list to find the fonts.

***Options | Save for Startup | Initial Database***

***Ctrl+Shift+E***

This option sets the current database as the default database for ThumbsPlus. Unless another database is specified on the ThumbsPlus command line, ThumbsPlus will open this database. See [File New Database](#) and [File Open Database](#) for information on creating and managing ThumbsPlus databases.

***Options | Save for Startup | Tree Size and Options Ctrl+Shift+T***

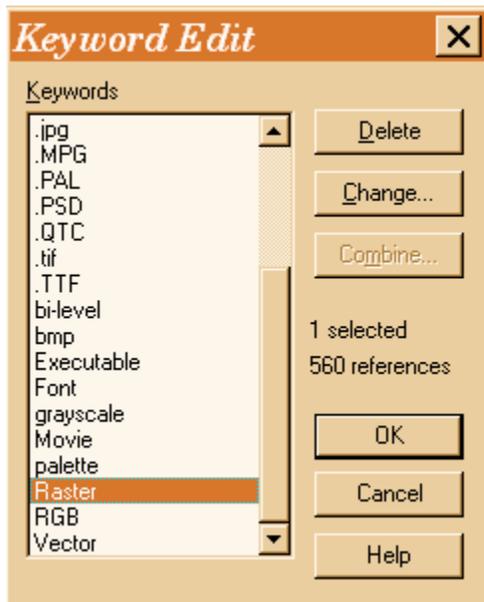
This option saves the current size (width) of the directory tree and the checked options from the Tree menu.

***Options | Save for Startup | Window Size & Position***

***Ctrl+Shift+P***

This option saves ThumbsPlus's current window position and size. Subsequent runs of ThumbsPlus will place the main window at its current position. Note that this is set for the current database only, so that you can configure different databases to start at different window positions.

*Options | Database | Edit Keywords*



Use this option to edit the keywords in the database. You may select one or more keywords in the list at the left, then click on buttons to "do something" to them.

**Delete.** Removes the keywords from the database. This also disassociates any thumbnails from the keyword.

**Change.** You can type a new value for the keyword. It will remain associated with all thumbnails that were associated with the original. This button is only available if a single keyword is selected.

**Combine.** You may combine multiple keywords to a single database entry. Extra associations (i.e., references to more than one of the selected entries) will be dropped. This button is only available if multiple keywords are selected.

***Options | Database | Statistics      Ctrl+T***

Shows various thumbnail database statistics for the current database.

### ***Options | Thumbnail Size***

You may quickly change the thumbnail size in the file list using any of these selections (50%, 100%, 150%, 200%). The sizes are relative to the size of the thumbnails as created by File | New Database.

These selections are also available from Options | **Preferences • File List**.

***Options | Sort By***

Select the field to sort the file list (Name, Type, Size, Date). You may also sort in descending order (Descending).

These selections are also available from Options | Preferences • File List.

***Options | Show for Files***

Select the items shown for each file in the file list (Thumbnail, Name, Size, Date, Dimensions, Resolution). You may also select whether to include hidden and system files.

These selections are also available from [Options | Preferences • File List](#).

## **Window Menu**

<u>Show All</u>	F4
<u>Close All</u>	Shift+F4
<u>Minimize All</u>	Ctrl+F4
<u>Toolbar</u>	Ctrl+Shift+B
<u>Status Line</u>	Ctrl+Shift+L
<u>Refresh File List</u>	F3

***Window | Show All F4***

Causes ThumbsPlus to display all open view windows (in the order they were opened).  
Minimized (iconized) windows are restored; hidden windows are brought to the front.

***Window | Close All   Shift+F4***

Closes all opened view windows. If you have selected confirmation on closing modified windows from the General Options dialog box, ThumbsPlus will prompt you before closing any modified windows.

***Window | Minimize All      Ctrl+F4***

This option will minimize (reduce to an icon) all open view windows. These icons display on the normal Windows desktop for easy access.

***Window | Toolbar    Ctrl+Shift+B***

This menu option toggles the toolbar on or off.

***Window | Status Line Ctrl+Shift+L***

This menu option toggles the status line on or off.

***Window | Refresh File List F3***

This option re-reads the current directory and searches for thumbnails for any files there. You should select this option if you delete, move or add to the files in the current directory.

## Help Menu

Help Topics	F1	Displays the ThumbsPlus Help contents
Menus		Displays help for the main menu
Error Messages		Displays help for error messages
License		Displays the shareware license
Ordering!		Provides ordering information
Search for Help on...	Ctrl+F1	Allows you to search the Help file
About ThumbsPlus...		Show the ThumbsPlus About box
<u>System Information</u>		Displays current system information

## ***Help | System Information***

This option displays the system information dialog box, which show various information about the current system. Cerious Software may ask for some or all of this information for troubleshooting.

## **View Window**

The View Window provides a quick and easy way to view and globally edit (crop, color adjust, modify color depth, rotate, resize, filter, invert, flip, etc.) graphics images from within ThumbsPlus. You can also save modified files in various formats.

Keyboard

Menus

## Keyboard - View Window

### Menu accelerator keystrokes:

F4	<u>Edit</u>   <u>Autocrop</u>
Esc	<u>Edit</u>   <u>Cancel Selection</u>
F8	<u>Edit</u>   <u>Clone</u>
Ctrl+C	<u>Edit</u>   <u>Copy</u>
Ctrl+R	<u>Edit</u>   <u>Crop</u>
*	<u>Edit</u>   <u>Goto Page</u>
Alt+PageDown	<u>Edit</u>   <u>Next Page</u>
Alt+PageUp	<u>Edit</u>   <u>Previous Page</u>
Ctrl+E	<u>Edit</u>   <u>Select All</u>
/	<u>Edit</u>   <u>Split Pages</u>
F2	<u>Edit</u>   <u>Thumbnail From Selection</u>
Ctrl+Z	<u>Edit</u>   <u>Undo</u>
Shift+Alt+F4	<u>File</u>   <u>Close All</u>
F5	<u>File</u>   <u>Copy file</u>
Del	<u>File</u>   <u>Delete file</u>
Shift+F5	<u>File</u>   <u>Move file</u>
Space	<u>File</u>   <u>Next file</u>
Ctrl+F9	<u>File</u>   <u>Page Setup</u>
Backspace	<u>File</u>   <u>Previous file</u>
F9	<u>File</u>   <u>Print</u>
Ctrl+Shift+Z	<u>File</u>   <u>Reload</u>
Ctrl+Shift+Z	<u>File</u>   <u>Reload</u>
Ctrl+Shift+F5	<u>File</u>   <u>Rename file</u>
Ctrl+S	<u>File</u>   <u>Save</u>
Ctrl+A	<u>File</u>   <u>Save As</u>
F1	<u>Help</u>   <u>Menus</u>
Ctrl+F1	<u>Help</u>   <u>Search</u>
C	<u>Image</u>   <u>Color Adjust</u>
D	<u>Image</u>   <u>Color Depth</u>
B	<u>Image</u>   <u>Convert to Bitmap</u>
U	<u>Image</u>   <u>Count Unique Colors</u>
Ctrl+F	<u>Image</u>   <u>Filter</u>   <u>Last Filter (R)</u>
Shift+F	<u>Image</u>   <u>Filter</u>   <u>New Filter (R)</u>
F	<u>Image</u>   <u>Filter</u>   <u>Select Filter (R)</u>
H	<u>Image</u>   <u>Flip Horizontal</u>
V	<u>Image</u>   <u>Flip Vertical</u>
M	<u>Image</u>   <u>Histogram (R)</u>
I	<u>Image</u>   <u>Invert</u>
R	<u>Image</u>   <u>Rotate/Resize</u>
W	<u>Image</u>   <u>Swap Red &amp; Blue</u>
6	<u>Image</u>   <u>Turn</u> ( 90)
2	<u>Image</u>   <u>Turn</u> (180)
4	<u>Image</u>   <u>Turn</u> (270)

G	<u>View</u>   <u>Assumed Gamma</u>
Ctrl+F6	<u>View</u>   <u>Autosize Window</u>
F7	<u>View</u>   <u>Comments</u>
F3	<u>View</u>   <u>Full Screen</u>
L	<u>View</u>   <u>Gridlines</u>
Shift+F6	<u>View</u>   <u>Maintain Aspect Ratio</u>
Ctrl+O	<u>View</u>   <u>Options</u>
Ctrl+W	<u>View</u>   <u>Stretch to Fit Width</u>
F6	<u>View</u>   <u>Stretch to Fit Window</u>
Z	<u>View</u>   <u>Zoom In</u>
Shift+Z	<u>View</u>   <u>Zoom Out</u>

## **View Window Menus**

File

Edit

Image

View

ThumbsPlus!

Help

## **File Menu**

<u>S</u> ave	Ctrl+S
<u>S</u> ave <u>A</u> s...	Ctrl+A
<u>S</u> ave <u>S</u> election <u>A</u> s...	Ctrl+Shift+A
<u>S</u> ave <u>P</u> alette <u>A</u> s...	Ctrl+P
<u>C</u> lose	Alt+F4
<u>C</u> lose <u>A</u> ll	Shift+Alt+F4
<u>R</u> eload	Shift+Ctrl+Z
<u>P</u> revious file	Backspace
<u>N</u> ext file	Space
<u>C</u> opy file...	F5
<u>M</u> ove file...	Shift+F5
<u>R</u> ename file...	Ctrl+Shift+F5
<u>D</u> elete file	Del
<u>P</u> rint...	F9
<u>P</u> age <u>S</u> etup...	Ctrl+F9

***File | Save    Ctrl+S***

Select this option to save the current view window as its original name. If the file is a format not supported for writing, ThumbsPlus will save it as a native format (BMP or WMF).

## ***File | Save As Ctrl+A***

This option saves the current file, allowing you to select a file name from a standard Windows Save As dialog box. It may be used to save a cropped or otherwise modified image. ThumbsPlus currently supports several types to save as: BMP, GIF, JPG, TIF, TGA and PCX for images, and WMF for metafiles.

Some file types also have optional information (such as comments) which can be saved in the file. If there are options available for the type you select, an Options dialog box will appear after you click OK in the Save As dialog box.

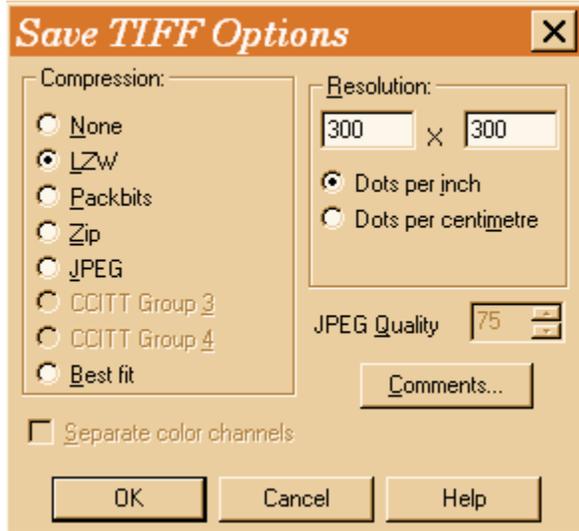
The JPEG Save Options dialog box even shows a preview of the "lossiness" of the compression.

The TIFF Save Options dialog box allows you to set the compression and resolution of the file, and to add or modify image comments.

The GIF Save Options allows you to specify the GIF level of the output, and to add or modify image comments.

If the current file has an extension representing another format (such as .PCX or .CGM), it is changed to reflect the format being saved.

## File | Save As Options (TIFF)



### **Compression.**

**None** is the most compatible with other applications, and fastest to load.

**LZW** is best for 8-bit color and grayscale, and for 24-bit color files.

**CCITT Group 3** and **CCITT Group 4** are valid only for bi-level files.

**Best Fit** will cause ThumbsPlus to use **CCITT group 4** for any bi-level files, and **LZW** compression for any others.

**Comments.** Allows you to edit the contents of the TIFF Description tag.

**Resolution.** Allows you to set the suggested resolution for the image, in dots-per-inch or dots-per-centimetre.

**Separate color channels.** Allows you to store RGB (Truecolor) images in separate red, green and blue channels. You should not use this option with LZW compression.

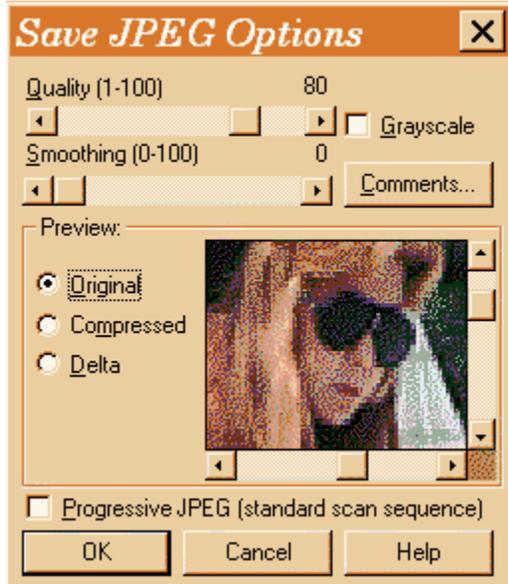
File | Save As Options (GIF)



GIF files may be saved as the older **87a** format, or the newer **89a**. Version 89a files can have comments, which you can edit by clicking the **Comments** button.

You can also save GIF files as **interlaced**.

## File | Save As Options (JPEG)



**Quality.** Select a quality value, between 1 and 100. Values between 25 and 95 are recommended. Values below 25 are likely to degrade the image far too much, and values above 95 make the file larger without any appreciable quality increase.

**Smoothing.** This option is sometimes useful for storing dithered 256-color images as JPEGs; it attempts to smooth the differences between pixels caused by dithering, but tends to blur the image somewhat.

**Grayscale.** Stores the image as a single-channel, 8-bit grayscale image. This removes all color information from the image.

**Comments.** Click on this button to edit or add comments to the image file.

**Preview.** Allows you to see the effect of the lossy compression on the image. You may scroll this preview around to different parts of the image to see the effect on specific details. The Delta option shows the differences between pixels, before and after compression. Medium gray is "zero difference."

A truecolor or highcolor (24-bit or 16-bit) display driver is required to utilize the JPEG loss preview.

***File | Save Selection As      Ctrl+Shift+A***

This option operates exactly like File | **Save As**, except that it only saves the selected area.

***File | Save Palette As Ctrl+P***

This option saves the palette of the current file to a .PAL file, which is really just a PCX file with a different extension. You can use these PAL files (or any bitmap file with a palette) to apply a palette to a given picture using the Color Depth dialog box, or even to apply the same palette to multiple files in Batch Convert/Edit.

You can make the .PAL files visible in ThumbsPlus by selecting them in the Options | File Types dialog box from the main window.

ThumbsPlus .PAL files are not similar to or interchangeable with .PAL files from other applications.

ThumbsPlus stores a small (generally 64x64) pixel bitmap along with the palette, so that useful thumbnails may be generated from the files.

***File | Print F9***

This selection prints the graphic in the current view window. All options from the Page Setup dialog box are applied.

***File | Reload Ctrl+Shift+Z***

This option reloads the current image from its disk file (the last time it was saved, or the original if you haven't saved it). It effectively undoes all changes since the last time the file was saved.

***File | Close ALT+F4, ESC***

This option closes the view window and removes it from the screen. If you have modified the image and selected confirmation for closing modified images (from the Confirmations dialog box), ThumbsPlus will ask you if you wish to save the modified image.

ESC will also close the image unless it is displayed full screen, in which case it is restored to a window, or if there is a selection, in which case the selection is cancelled.

***File | Close All***      ***Shift+ALT+F4***

This option closes all open view windows. If you opted to confirm closing modified images (from the Confirmations dialog box), ThumbsPlus will prompt you to save each one before closing it.

***File | Next fileSpace***

In a view window that was generated by loading an image from disk, this selection will open the next file in the current directory. If there are no more images, or if the current image was pasted from the clipboard or scanned, this option will be unavailable.

***File | Previous file    Backspace***

In a view window that was generated by loading an image from disk, this selection will open the previous file in the current directory. If the current image is the first in the directory, or if the current image was pasted from the clipboard or scanned, this option will be unavailable.

***File | Copy file... F5***

For windows generated by loading an image, this option will allow you to copy the file to another location. If the file was pasted or scanned (rather than loaded from disk), this option is unavailable.

***File | Move file...    Shift+F5***

This option will allow you to move the current file to another location. If the file was pasted or scanned (rather than loaded from disk), this option is unavailable.

***File | Rename file... Ctrl+Shift+F5***

This option will allow you to rename the current file on disk. If the file was pasted or scanned (rather than loaded from disk), this option is unavailable.

***File | Delete file      Del***

This option will allow you to delete the current file from the disk. If the file was pasted or scanned (rather than loaded from disk), this option is unavailable.

## Edit Menu

This menu provides options that operate on a selected area in the view window. Only bitmaps can be selected from; to operate on a portion of a metafile, it must first be converted to a bitmap using the View-Convert to Bitmap option.

Use the mouse to select an area in the view window: press the left mouse button to start a selection area at one corner, and hold it down while moving the mouse to the opposite corner. Then release the mouse button. ThumbsPlus will draw a rectangle around the selected area. If the area is large enough, ThumbsPlus will also display the selected area size in a small rectangle in the center of the area.

To select an area from the center out, hold the SHIFT key down, press the left mouse button at the place you want to be the center of the selection, and drag the mouse to a corner. Then release the mouse button.

<u>Undo</u>	Ctrl+Z
<u>Copy</u>	Ctrl+C
<u>Crop</u>	Ctrl+R
<u>Cancel</u>	Esc
<u>Select All</u>	Ctrl+E
<u>Thumbnail from Selection</u>	F2
<u>Autocrop</u>	F4
<u>Clone</u>	F8
<u>Next Page</u>	Alt+PageDown
<u>Previous Page</u>	Alt+PageUp
<u>Goto Page...</u>	*
<u>Split Pages...</u>	/

***Edit | Clone F8***

This menu selection copies the current image to a new window. The file is not re-opened, so any changes made already are reflected in the copy.

***Edit | Copy    Ctrl+C***

This menu selection copies the currently selected area in the view window to the clipboard.

***Edit | Crop    Ctrl+R***

Use this menu option to reduce the view window to only the selected area of the image. Anything outside the selected area is eliminated. This change will only be written to the disk file if you use the File-Save or File-Save As option.

*Edit | Cancel Selection*      *ESC*

This option removes the selection rectangle from the window.

***Edit | Undo   Ctrl+Z***

This selection restores the image to its state before the last Rotate, resize, Color Adjustment, Color Depth, Crop, Autocrop or Filter operation.

This menu item will show what will be undone, or show "Can't undo" if there is nothing to undo. Some operations (such as Invert) are not saved for undo, as they can be re-selected to undo them.

***Edit | Select All      Ctrl+A***

This option selects the entire contents of the view window for processing.

***Edit | Thumbnail from Selection***    ***F2***

This selection uses the currently selected area in the view window to generate a thumbnail for the image. This is especially useful for clipart files which contain many related images. You can select a representative part of the file and create the thumbnail from only that part.

***Edit | Autocrop***      ***F4***

This option automatically crops the current image, removing any edges composed entirely of the same color. The pixel in the bottom left corner of the image is used as the reference pixel. Each of the four sides is compared to this pixel; any side entirely of that color is removed. This process is repeated for each side until a pixel of a different color is found.

***Edit | Next page      Alt+PageDown***

In a multi-image file (TIFF or DCX), this will display the next image in the file. The title bar shows the current page number and the total number of pages in the file.

***Edit | Previous page Alt+PageUp***

In a multi-image file (TIFF or DCX), this will display the previous image in the file. The title bar shows the current page number and the total number of pages in the file.

**Edit | Go to page... Alt+PageDown**



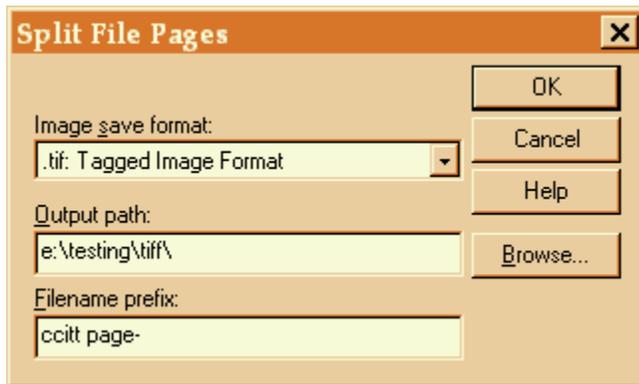
In a multi-image file (TIFF or DCX), this option will allow you to select a specific page number to view. Page numbers start at one.

**Page number.** Select the page number to display. Page numbers start at one.

**First page.** Display the first page.

**Last page.** Display the last page.

**Edit | Split pages... Alt+PageDown**



In a multi-image file (TIFF or DCX), this option will allow you to split the images into individual files. You can select the format, directory and file prefix for the operation. The original file is left intact.

**Image save format.** Select the format for the image. The defaults are TIF for multi-page TIFF files and PCX for multi-page PCX files.

**Output path.** Select the directory to which to write the individual images. You can use the **Browse** button to find a particular drive and folder.

**Filename prefix.** Enter the first part of the name of the file. A sequence number is automatically appended, starting at 0001. Note that the prefix is limited to 4 characters on Windows 3.1 because of file name limitations.

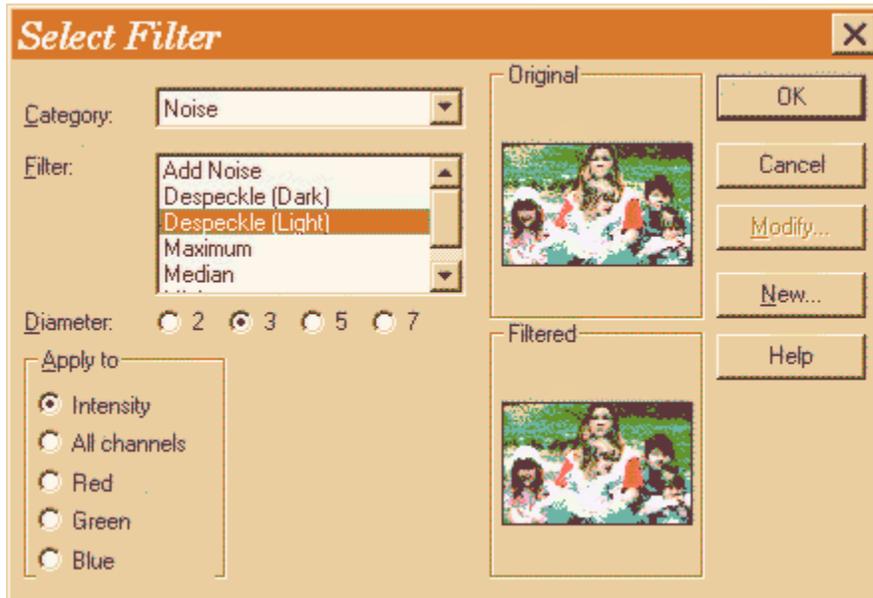
## Image Menu

### Filter

<u>Select Filter...</u>	F
<u>New Filter...</u>	Shift+F
<u>Apply Last Filter</u>	Ctrl+F
<u>Histogram...</u>	M
<u>Color Adjust...</u>	C
<u>Color Depth...</u>	D
<u>Rotate &amp; Resize</u>	R
<u>Flip Horizontal</u>	H
<u>Flip Vertical</u>	V
<u>Swap Red &amp; Blue</u>	W
<u>Invert</u>	I
<u>Count Unique Colors</u>	U
<u>Turn</u>	
90°	Ctrl+KeyPad 6
180°	Ctrl+KeyPad 2
270°	Ctrl+KeyPad 4
<u>Convert to Bitmap</u>	B

***Image | Count Unique Colors***      *U*

This option counts the number of colors in an image. For images stored as 8 bits per pixel or fewer, it is very fast; but for 24-bit images, it may take a while (and temporarily use up to 2Mb of memory). If there is insufficient memory to count the actual colors in an image, ThumbsPlus will ask if you want an estimate instead.



This dialog box allows you to select a filter for processing the current image (or group of images in Batch mode).

**Category.** Select the type of filter you wish to apply. Some types available are: Sharpen, Blur, Edge Detection, Effects and Noise.

**Filter.** Select the specific filter from that category. A sample of the results of the filter will be shown in the preview to the right.

**Diameter.** For statistical and morphological filters, you may select the diameter of the aperture to use for processing. Larger apertures will produce more profound effects.

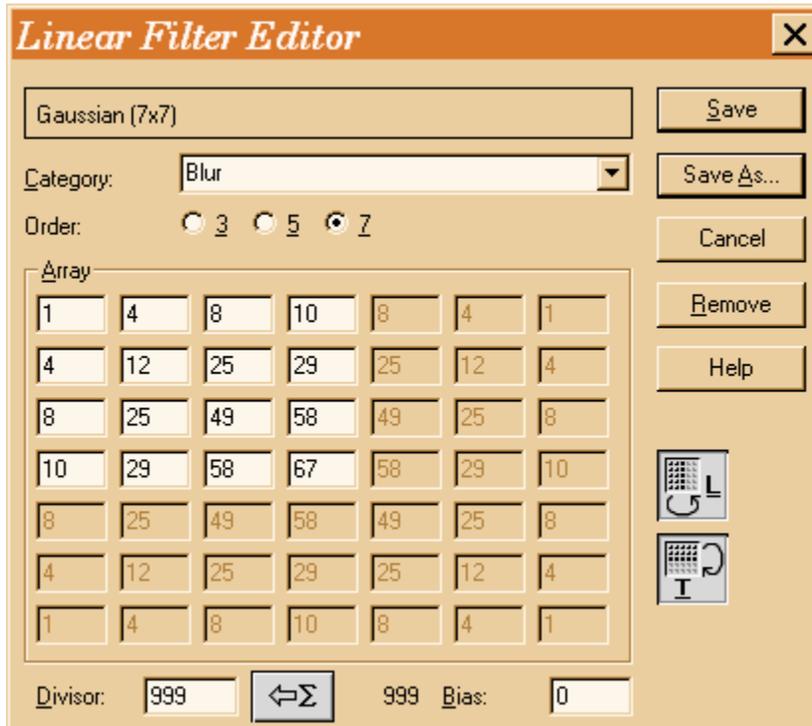
**Apply to.** Select the channel(s) to apply the filter to. Intensity applies the effect only to the intensity (brightness) of each pixel -- the hue is maintained. All channels processes all three channels (red, green and blue) separately. And, for some filter types, you may select only a single color channel.

**Orientation.** For linear filters (those defined by a *convolution mask*) which are not symmetrical, ThumbsPlus can rotate the mask to several positions. Select the arrow which represents the direction you wish to apply the filter.

**Modify.** Click this button to modify the currently selected filter. Note that only linear filters can be modified within ThumbsPlus. Statistical and multipass filters may not.

**New.** Click this button to add a new filter.

**Image | Filter | New Filter (R)Shift+F**



You use this dialog box to modify an existing linear filter or define a new one. Only linear filters (defined by a *convolution mask*) may be modified or added in ThumbsPlus.

**Category.** Select the category in which this filter belongs. Categories help to locate specific filters from the many choices.

**Order.** ThumbsPlus can apply 3x3, 5x5 or 7x7 filters. This selects the size of the filter. If you reduce the size once you've entered values, some will be lost.

**Array.** Enter the actual pixel accumulation values here. The central value represents the current pixel being processed. Each pixel is multiplied by the corresponding value in the array and added to a total.

**Divisor.** The sum of pixel x array values is divided by this value. For most filters, this divisor should be the same as the sum of values in the array; the  $\leftrightarrow \Sigma$  button will place this sum in the Divisor field.

**Bias.** This value is added to the result of  $(\text{Array} \times \text{pixels}) / \text{Divisor}$ . It is used for some effects, such as embossing and etching. It is especially useful when the sum of values in the array is zero.

**L.** Click to force the array to be left-right symmetrical. All values on the left of the array will be repeated on the right (and if you change a value on the left, it will automatically change on the right). This button is on by default if you edit a filter that is left-right symmetrical.

**T.** Click to force the array to be top-bottom symmetrical. All values in the top of the array will be repeated automatically on the bottom (and if you change a value on the top, it will automatically change on the bottom). This button is on by default if you edit a filter that is top-bottom

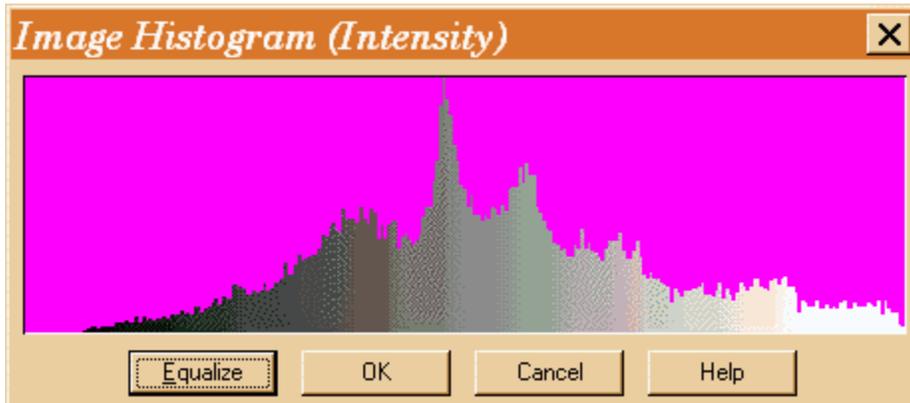
symmetrical.

**Remove.** Click to remove the current filter from the filter list (THUMBS.FLT).

***Image | Filter | Last Filter*** <sup>(R)</sup> ***Ctrl+F***

Repeats the last filter selected (using Image | Select Filter) on the current image.

*Image | Histogram (R) M*



This option displays a histogram of the intensity of the image. It shows the relative number of pixels at each intensity level. If the values are bunched together, the picture lacks contrast; if they are skewed to the left or right, the picture is most likely too dark or too light.

In some cases, equalizing the histogram (using the **Equalize** button) will improve the appearance. ThumbsPlus will attempt to modify intensities to come as close to even levels of each as possible.

The histogram is most useful for 256-level grayscale and RGB Truecolor images.

### ***Image | Invert I***

This selection inverts an image -- each color becomes the opposite color, creating a negative effect. This is most useful for printing CompuServe stock trend charts (and other dark drawn images), which otherwise use lots of toner or ink. It can also be useful for some incorrectly stored TIFF or PCX images (marked as MIN\_IS\_BLACK, but stored as MIN\_IS\_WHITE).

This option is its own inverse, so it is not saved for undoing.

***Image | Swap Red & Blue*** *W*

This option swaps the red and blue values of each pixel or color map entry. It is useful for images (especially Sun Raster) which are saved with these values reversed. Note that this operation is not saved for undo, as selecting it again undoes it.

***Image | Flip Vertical V***

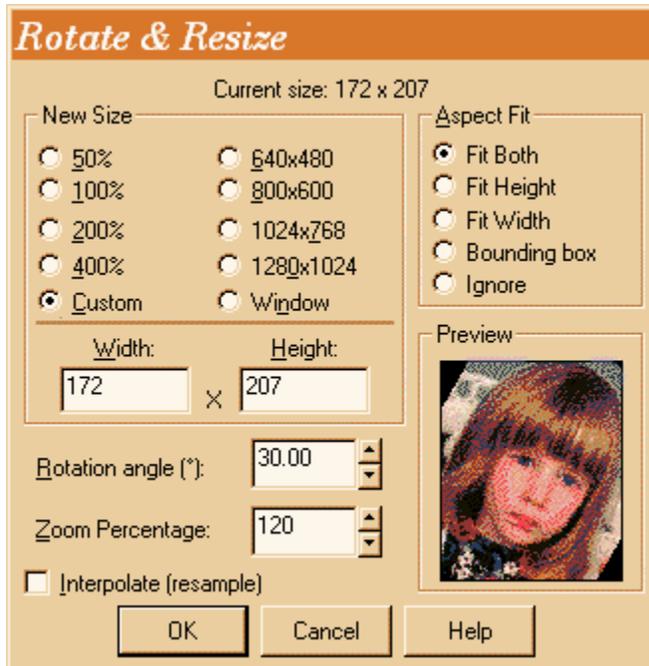
This option reverses the image from top to bottom. Note that this operation is not saved for undo, as selecting it again undoes it.

***Image | Flip Horizontal***      ***H***

This option reverses the image from left to right. Note that this operation is not saved for undo, as selecting it again undoes it.

## Image | Rotate/Resize R

This dialog box allows you to either rotate or resize an image, or both simultaneously. You can also control how the rotation occurs (whether the corners are cut off) using a zoom control.



**Zoom percentage.** Zooms in or out. This is most useful for controlling what happens to the corners of the image during rotation. Use the arrow keys or mouse to slide the control box left or right to decrease or increase the zoom amount. This option is not available when fitting to the bounding box (see below).

**Rotation angle.** Angle (counter-clockwise) of rotation, in .01-degree increments.

**New Size.** Various options for the new size of the image, include specific percentages and specific sizes. You can also select Window to size the image to the current window size, or Custom to enter specific values.

These values may be entered either as exact pixel measurements, or as percentages of the original.

**Aspect Fit.** This selection sets how ThumbsPlus treats an original whose dimensions are of a different ratio than the destination. In other words, it controls the size of the destination file.

**Fit Both.** The final image fits in the specified rectangle as closely as possible.

**Fit Height.** The final image must be the same height as the specified height.

**Fit Width.** The final image will be the same width as the specified width.

**Bounding Box.** Most useful for rotations: the final image size is calculated as the size necessary to include the entire image after rotation. This avoids cutting of corners or edges.

**None.** The aspect ratio of the original is ignored.

**Interpolate (resample).** Selecting this box (highly recommended!) will cause ThumbsPlus to set the values of new pixels to averages of surrounding pixels. This requires that the image be either 24-bit color or 256-gray level. If it is not, ThumbsPlus will automatically change the color depth.

---

ThumbsPlus remembers the last settings from this dialog box so that you can re-use them for additional images, or for batch processing.

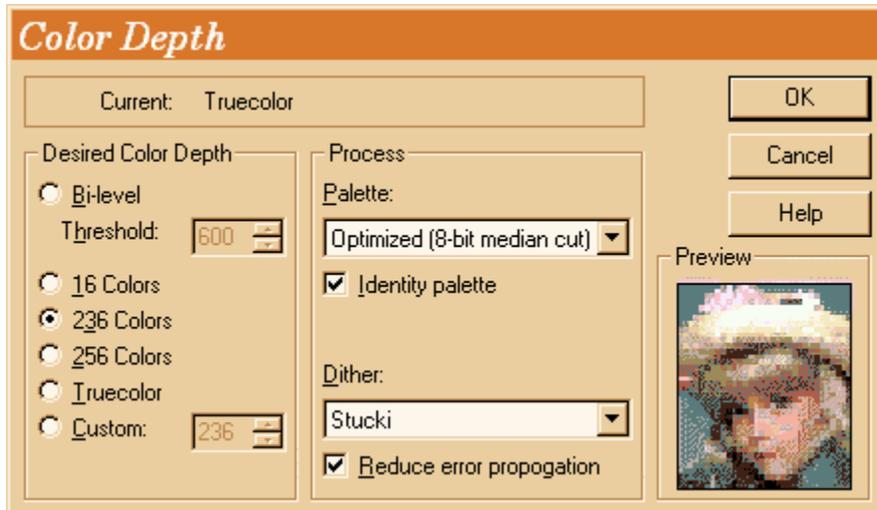
If you rotate or resize a 256 (or fewer) color image and select interpolation, ThumbsPlus will automatically promote it to 24-bit (truecolor to be able to interpolate intervening pixels. You can then use the Color Depth selection to adjust the colors to the number you desire. Likewise, ThumbsPlus will promote any grayscale image less than 256 levels to an 8-bit grayscale image.

***Image | Turn Ctrl+6, Ctrl+2, Ctrl+4***

These three options (to turn the image by 90, 180 or 270 degrees) rotate the image quickly. Note that you can achieve these same functions (even in batch mode) by using Rotate/Resize with an angle of 90, 180 or 270, and specifying **Bounding Box** as the **Aspect Fit**.

## Image | Color Depth D

Use this window to modify the color depth of an image. For example, it will convert a color image to grayscale, or a 24-bit image to 8-bit, or just about anything to monochrome (bi-level).



**Desired Color Depth.** Select the number of colors you desire in the final image.

**Bi-level.** Selects a two-color (black & white) destination image. Each pixel requires a single bit.

**Threshold.** When you select bi-level as the desired color depth, you may enter a threshold value for the dividing point between black and white. This number must range between 1 and 764. The sum of red, green and blue values for each pixel is compared to this threshold; if below, the destination pixel becomes black; if above, it becomes white. Note that if dithering is selected, this value may not make as much difference, as any error is propagated through neighboring pixels.

**16 Colors.** Selects a sixteen-color destination image; each pixel requires 4 bits.

**236 Colors.** Selects a 236-color destination image; each pixel requires 8 bits. This selection is useful for 256-color Windows users, as it leaves the 20 colors that Windows requires.

**256 Colors.** Selects a 256-color destination image; each pixel requires 8 bits.

**Truecolor.** Selects a 24-bit destination image; each pixel requires 24 bits.

**Custom.** Select a number between 4 and 256. For color counts between 4 and 16, 4 bits per pixel are required; for a count of greater than 16, 8 bits per pixel are required.

**Palette.** Unless converting to Truecolor, you must select the palette to use. Several fixed and optimized palette selections are available:

**Optimized (5-bit median cut).** Uses the "median cut" algorithm to select a color palette that best matches the colors of the original image. Selects from a total of 32,768 possible colors (5 bits each for red, green and blue).

**Optimized (6-bit median cut).** Uses the "median cut" algorithm to select a color palette that best matches the colors of the original image. Selects from a total of 262,144 possible colors

(6 bits each for red, green and blue). In some cases, this will mean a better color selection than the 5-bit algorithm, but it runs somewhat slower.

**Optimized (8-bit median cut).** Uses the "median cut" algorithm to select a color palette that best matches the colors of the original image. This algorithm selects from a total of 16 million possible colors (8 bits each for red, green and blue). In some cases, especially rasterizing drawing with solid areas or gradient fills, this option produces much better results than 5 or 6-bit quantization. However, it is quite a bit slower, and will use very large amounts of memory if the number of colors in the original image is high. Not suggested for photographic images.

**Optimized (popularity).** Selects the  $n$  most-used colors in the original image.

**Grayscale.** Creates a fixed levels-of-gray palette, with  $n$  evenly spaced colors.

**ThumbsPlus Color.** Selects the same colors used in the ThumbsPlus thumbnails; this is also the palette used for the Quick Dithering option (see below).

**Windows Color.** Uses the 16 standard Windows colors (yuck - but sometimes you need 'em).

**Standard VGA.** Selects the default 16 VGA palette colors.

**6x7x6 Even Distribution.** Creates a palette with 6 levels of red, 7 of green and 6 of blue, evenly spaced. (Not very pretty for most images, but okay for some dithering jobs.)

**6x6x6 Even Distribution.** Creates a palette with six levels each of red, green and blue, evenly spaced. This is similar to the 6x7x6 palette, but more useful for pictures with large amounts of gray.

**Indeo.** Uses the 236-color Indeo palette recommended for video frames. This is also a very useful general palette, somewhat similar to the ThumbsPlus palette.

**Cinepak.** Uses the recommended 236-color Cinepak palette recommended for video composition.

**Pasted from Clipboard.** Pastes a palette from the image on the clipboard. This is useful for adapting several images to a common palette.

**Loaded from File.** This option allows you to load a palette from an existing graphics file, or from a ThumbsPlus palette file (.PAL), which you may create using the Save Palette As... option on the View window File menu.

**Identity palette.** Checking this box will cause ThumbsPlus to adjust any 17 to 236 color palette to be a Windows identity palette, placing the 20 Windows system colors in the first 10 and last 10 color map positions.

**Dither.** When reducing the number of colors in an image, you may select a dithering method from those listed below.

**(none).** No dithering. Colors are simply mapped to the closest available color in the selected palette.

**Floyd-Steinberg.** The most popular error diffusion dithering method. Fairly quick with reasonable results.

**Burkes.** Another error diffusion dither. Takes slightly longer than Floyd-Steinberg, and

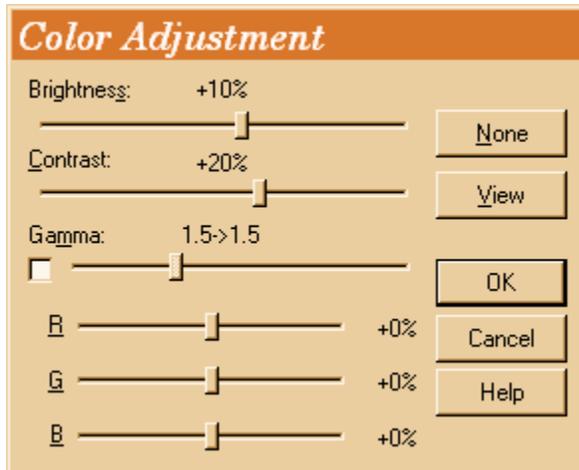
sometimes produces nicer results.

**Stucki.** A fairly complex error diffusion dither. Slower than Floyd-Steinberg or Burkes, but usually the nicest results, especially for truecolor to 256-color conversions.

ThumbsPlus retains the last selections you made in this window so you can apply the identical changes to subsequent files, or during batch processing.

## *Image | Color Adjust C*

Use this selection to alter the brightness, contrast, gamma and red, green and blue levels in an image.



**Brightness.** This control changes the overall brightness of an image. Use negative values to darken an image, and positive values to lighten it. Use the arrow keys or the mouse to change the value.

**Contrast.** This control changes the contrast; that is, the difference between the light and dark areas. Positive values increase the difference between them, while negative values decrease the contrast.

**Gamma.** This control changes the color values or gray levels in an image to provide for a specific gamma correction. The display itself doesn't change (because ThumbsPlus knows the new assumed gamma value, and adjusts for it!), but the image itself does. This is most useful if you have linear files (gamma = 1.0), and wish to make them "standard" GIF files (gamma = 2.0), so they will display reasonably correctly with viewers which don't provide gamma correction.

**R, G, B.** These controls modify the amount of Red, Green and Blue in the image. They work similarly to the Brightness control, but individually on each color channel.

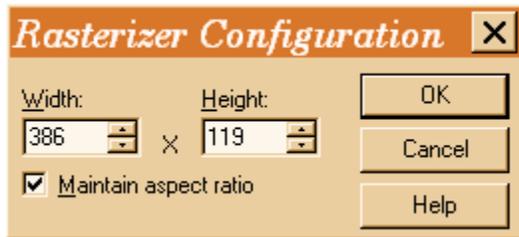
**None.** Sets all controls to zero.

**View.** On Truecolor or Highcolor displays, this button repaints the image with the selected changes. This button is absent on 256-color displays, as ThumbsPlus automatically animates palette of the image to show the changes.

---

Note that ThumbsPlus "remembers" the last values you used to adjust an image, so you can use them to adjust another, or as input to [Batch processing](#) of images.

**Image | Convert to Bitmap B**



This option converts a metafile to a bitmap. You may enter the desired height and width, and whether or not to maintain the original aspect ratio of the metafile.

**Width.** Enter the desired width of the bitmap. This defaults to the current window width.

**Height.** Enter the desired height of the bitmap. This defaults to the current window height.

**Maintain aspect ratio.** Select this option to force the bitmap to be the same aspect ratio as the original metafile. This defaults to the setting of the Maintain Aspect Ratio option in the View window.

## **View Menu**

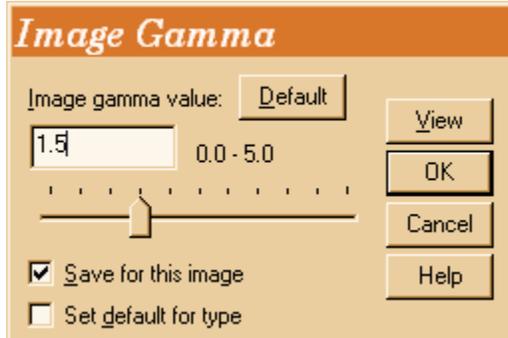
<u>Full Screen</u>	F3
<u>Autosize Window</u>	Ctrl+F6
<u>Maintain Aspect Ratio</u>	Shift+F6
<u>Assumed Gamma...</u>	G
<u>Zoom In</u>	Z
<u>Zoom Out</u>	Shift+Z
<u>Zoom to Fit All</u>	F6
<u>Zoom to Fit Width</u>	Ctrl+W
<u>Gridlines</u>	L
<u>Comments</u>	F7
<u>Properties</u>	Ctrl+I
<u>Customize Toolbar</u>	Ctrl+T
<u>Toolbar</u>	T
<u>Status Line</u>	S

***View | Autosize Window      Ctrl+F6***

This option will make the view window the same size as the image displayed in it (if possible).

## **View | Assumed Gamma    G**

This dialog box allows you to assign the assumed gamma value for an image, and to set the default for a file type (so that any files loaded with the given type will be assumed to be adjusted for that gamma value.)



Use the arrows or the mouse to change the assumed gamma value. Select a value of zero (0.0) to turn off gamma correction for this image.

Check **Set Default for Type** to assume the selected value for all loaded images of this file's file type.

If you're using a palette-based (256-color) display driver, the change will be immediately visible. For 24-bit (truecolor) and 16-bit (highcolor) displays, you must click on the **View** button to see the changes.

***View | Maintain Aspect Ratio*** **Shift+F6**

This option causes ThumbsPlus to maintain the original file's aspect ratio when stretching to fill the window. This applies to both metafiles and bitmaps.

***View | Zoom to Fit All***      ***F6***

When this option is checked, the image will be stretched (or shrunk) to fill the size of the window. Note that you cannot select portions of the image when stretched.

***View | Zoom to Fit Width    Ctrl+W***

When this option is checked, the image will be stretched (or shrunk) so that the width of the graphic fits the width of the window. This is most useful for portrait-oriented files, such as documents.

***View | Gridlines***      ***L***

This option toggles the display of grid lines between pixels when zoomed in by 4x or more.

***View | Zoom Out      Shift+Z***

This function zooms back out after Zooming in.

***View | Zoom In      Z***

This selection "zooms in" on the current bitmap or metafile. For bitmaps, each pixel is shown as a square. For metafiles, only a portion of the file is viewed, but at increased magnification.

It is useful for viewing details in an image. It does not modify the image itself -- use Image | Rotate/Resize for changing the size of an image.

You can select Zoom In multiple times to view progressively smaller areas of an image. You may also use the keys 1-9 to zoom from 1x (unzoomed) to approximately 9x.

***View | Comments F7***

When this option is available, it indicates that the graphic being viewed has comments embedded in it. Select it to view these comments. Comment viewing is currently supported for the following types of files:

- GIF - version 89a comment field
- JPEG - COM marker field(s)
- TIFF - Description tag

***View | Full Screen F3***

This option causes the View Window to use the entire screen, without title bar or menus. If the image is larger than the screen, you will still have scroll bars. While in full screen mode, use the right mouse button or the F10 key to see the View Window menus, which will appear vertically instead of horizontally. You can perform any of the View Window commands while in full screen mode; however, cropping an image will reduce the window to the size of the cropped image. You can select View-Full Screen again or press F3 to exit full screen mode.

***View | Properties***

If the current image was loaded from a file, this selection shows the Properties Dialog for the file on disk. Changes made since the file was loaded are not shown.

## *View | Customize Toolbar*

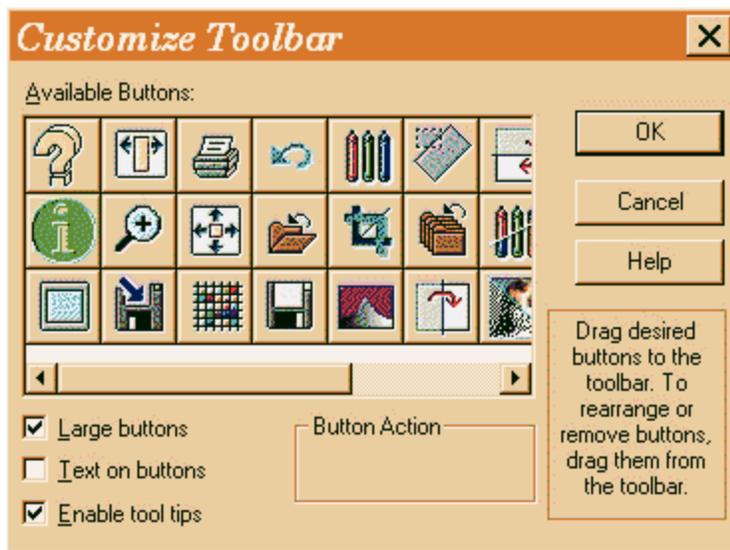
Use this dialog box to configure the ThumbsPlus toolbar to your liking. Most menu commands are available as toolbar buttons; simply drag the ones you want to the place you want on the toolbar.

You can also move buttons on the toolbar, or drag them completely off to remove them. Buttons may only be on the toolbar once – if you add a button a second time, it will move to the new position.

You may make two rows of buttons, but the second row will not display properly until you select OK to save your changes.

You may also double-click the toolbar to open this dialog box.

There is no keyboard interface for customizing the toolbar (toolbars are for mice, aren't they?).



**Available buttons.** Shows the buttons available for the toolbar. Drag a button to the toolbar to add it.

**Large buttons.** Selects the larger size of toolbar button (32x32 pixels), versus the small version (20x20 pixels).

**Text on buttons.** Adds descriptive text (as in Tool Tips) to each button. This makes the buttons quite a bit larger.

**Enable Tool Tips.** Enables tool tips, which will describe each button if you leave the cursor over it for about a second.

## ***View | Toolbar***

This selection turns the view window toolbar on or off. If the toolbar is currently on, this option will be checked.

- If you want to have a toolbar for each new view window, use Options | Preferences • Viewing from the main window.
- To customize the toolbar, use View | Customize Toolbar.
- The toolbar is hidden in full screen mode.
- When using a display driver with 256 or fewer colors, the toolbar may appear ugly – its colors must be mapped to the current image colors.

## View | Status Line

This selection turns the view window status line on or off.

- If you want to have a status line for each new view window, use Options | Preferences • Viewing from the main window.
- The status line is hidden in full screen mode.

The fields in the status line are:



- 1 Modified flag.* The text MOD is darkened if the image has been modified.
- 2 Quick-Dither flag.* The text Q8 appears when a 24-bit image is dithered to 8 bits for display on a 256-color display driver.
- 3 Zoom factor.* When using the integral zoom (2x to 9x), this field indicates the current factor.
- 4 Image size and depth.* This field contains the width, height and color depth (in bits) of the current image.
- 5 Selection size.* The size of the currently selected area of the image. This field is blank if no selection is active.
- 6 Position.* When selecting, this field contains the coordinates of the upper-left corner of the selection rectangle. When no selection is active, this field contains the current cursor position in the image.
- 7 Pixel color.* This field shows the current pixel color (red, green, blue). Each sample ranges from 0 to 255. When selecting, this is the color of the anchor point of the selection (the first point selected).

## Help Menu

Help Topics	F1	Displays the ThumbsPlus Help contents
Menus		Displays help for the main menu
Error Messages		Displays help for error messages
License		Displays the shareware license
Ordering!		Provides ordering information
Search for Help on...	Ctrl+F1	Allows you to search the Help file
About ThumbsPlus...		Show the ThumbsPlus About box

## ThumbsPlus Menu

This "quickie" menu, which has no drop-down items associated with it, simply brings the ThumbsPlus main window to the top of all windows. It is useful when a large view window obscures or covers the ThumbsPlus main window.

## **Help Menu**

This menu provides access to the ThumbsPlus Help system and the About box.

## **Additional Information**

[Hints and Tips](#)

[Windows Display Drivers](#)

[.INI and .TWO File Settings](#)

## Hints and Tips

**File Manager Drag & Drop.** ThumbsPlus will act as a drag-and-drop client from File Manager. Simply drag file names from File Manager to the ThumbsPlus window (or icon). ThumbsPlus will open a view window for each file (up to the maximum number of view windows specified in the Viewer Options). You can also drag files *from* ThumbsPlus to other applications.

**View Window Shortcuts.** Double-clicking with the left mouse button in a view window will change it to full screen mode. Double-clicking with the right mouse button in a view window will close the window.

**Metafile Viewing.** If you're displaying true-color (24-bits) or standard VGA, turn on "Dither Metafiles" from the Viewer Options dialog box. In the case of true-color, Windows never dithers; in the case of standard VGA, the special code to create solid colors for the dithered colors cannot work.

**Background Colors.** For full-screen displays of 256-color images on a palette-based (256-color) display, select either black or white as the background color from the Viewer Options or the Slide Show Options dialog box, as ThumbsPlus steals the other system colors to more accurately display the image.

**Internal Drag & Drop.** Although ThumbsPlus has only a single window, you can drag files to directories not visible on the directory list by scrolling it **after** selecting the files you want to move or copy.

**Performance.** Though there is no built-in limitation on the number of file ThumbsPlus can handle, I recommend creating multiple catalogs (databases) if you have more than about 5000 files. Besides reducing the memory required to handle the index, smaller catalogs will speed up access to thumbnails in the database.

## Windows Display Drivers

ThumbsPlus works best with highcolor (15 or 16 bit) and truecolor (24 bit) color, but also works well in 256-color (8 bit) modes. You should select an appropriate driver for your display adapter using the Control Panel.

[Click here](#) to set up your display drivers using the Control Panel.

### Selecting a Driver

Several different color depths and screen resolutions may be available; here is some information on the possible choices:

Four different color depths are generally considered "Super VGA;" these are:

#### **256-color (8 bits required per pixel)**

This provides the minimum number of colors to display a single color graphic; multiple graphics must usually share some colors, so quality is sacrificed on all but the "top most" window. 24-bit graphics must be pre-processed before display to achieve reasonable color; ThumbsPlus uses a fast "quick-dither" to the thumbnail palette. This is indicated by a [Q8] appended to the file name in the view window title bar.

#### **32768-color (16 bits required per pixel)**

This mode divides the 16 bits into 5 red, 5 green and 5 blue pixels. One pixel is not used. This provides much better viewing capability than the 256-color mode, but requires more video memory. You can simultaneously view multiple 256-color graphic files. Truecolor (24-bit) files will suffer some loss in quality (because nine bits of each pixel are ignored), and may be somewhat slower to display because the display driver has to "map" the colors.

#### **65536-color (16 bits required per pixel)**

This mode provides similar capability to the 32768-color mode, with (very) slightly better results. The extra (16th) bit is usually used for green.

#### **16-million color (24 bits required per pixel)**

Eight bits are used for each color (red, green, blue). This provides true color viewing -- no color information is lost from 24-bit images, and as many as desired may be viewed simultaneously. This is the most accurate color mode, but generally slower than 256-color mode.

Your video card may be capable of several different color depths and several different resolutions. Here is a table showing the minimum amount of video memory required for most popular color resolutions for each color depth, rounded up to 512Kb (Kilobytes) increments. Note that video memory is separate from system memory -- it's on the video card itself, and not usable for programs or data.

	<b>256 (8-bit)</b>	<b>32768/65536 (Hicolor)</b>	<b>16.7 Million (Truecolor)</b>
640x480	512Kb	1Mb	1.5Mb

800x600	512Kb	1Mb	2Mb
1024x768	1Mb	2Mb	2.5Mb
1280x1024	1.5Mb	3Mb	4Mb
1600x1200	2Mb	4Mb	6Mb

Video cards with less than 512K of memory are not capable of running Windows with more than 16 colors.

Your monitor must also be capable of displaying the required vertical and horizontal resolution.

Using higher color depths also requires more system memory, as bitmaps are often stored in system memory at the color depth (bits per pixel) required for the current display.

## .INI and .TUO File Settings

The following tables list the global and database-specific parameters, and indicate the menu or dialog box from which the parameter can be changed:

### Global Parameters (THUMBS.INI)

<i>Section</i>	<i>Parameter</i>	<i>Menu/Dialog box</i>	<i>Description</i>
[Registration]	UserName	File>Register	Your user name; entered when you register ThumbsPlus
	UserCode		Your user code; assigned when you register ThumbsPlus.
[Startup]	WindowLeft, WindowTop, WindowWidth, WindowHeight	Options >Save for Startup >Window Position	These parameters store the initial position and size of the ThumbsPlus main window for startup.
	ThumbnailFile	Options >Save for Startup >Initial Database	Path and file specification of the initial database for ThumbsPlus to load when starting. This may be overridden by specifying a database on the Command Line for the ThumbsPlus icon.
	No3dControls	(none)	When non-zero, disables 3-D controls and dialog box appearance.
[Confirmations]	FileDeletions	Options>Confirmations	When non-zero, requests you to confirm deletion of any file.
	FileCopies		Requests for confirmation for copying files.
	FileMoves		Requests for confirmation for moving files.
	Directory...		(Not yet implemented)
	CloseModified Window		Requests confirmation when closing a view window that has changed (been edited).
	CloseApplication		Asks "Are you sure you wish to exit ThumbsPlus" when you close the main window.
	FileOverwrite		Requests confirmation before overwriting a file with the same name (copy or move).
[KnownFilters]		Options >File Types >Configure >Hunt for Filters	This sections contains a list of the graphic import filters which have been located using the Filter Hunt dialog box.
[JpegLoading]	QuantizeColors	Options>Jpeg Loading	Selects whether the JPEG library reduces the color depth during the load of an image.
	TwoPassQuant		When quantizing colors, selects whether a two-pass quantization is selected.
	Grayscale		Discards color information and loads JPEG images in grayscale.
	Dither		Selects whether dithering is performed when reducing the color of a JPEG image on load.
	QuantColors		The number of colors to reduce to, when QuantizeColors=1.
[Batch]	Format	File >Batch Edit/Convert	File format (i.e., BMP) in which to store batch converted files.
	AutoCrop		Autocrop images during the batch conversion.
	Resize		Rotate or resize during the batch conversion.
	ColorAdjust		Images are color adjusted during the batch conversion.

	Depth		Specifies whether the color depth is adjusted.
	Overwrite		Overwrite files with the same name.
	AltExtension		Specifies an alternate file extension for output files.
	OutputPath		Specifies the directory where converted files are placed.
[AutoPaste]	Prefix	Edit>Auto Clip Save	Indicates the prefix for file names that are saved.
	Sequence		Next sequence number to use for Auto Clipboard Save.
	Format		File format for files saved from Auto Clipboard Save.
	ConvertMetafiles		Specifies whether metafiles are converted to bitmaps.
	OutputPath		Location to store Auto Clipboard Saved files.
[Directories]	SaveAs	View>File>Save As	Destination directory for Save As... dialog box.
	Copy Files	File>Copy	Destination directory for copying files.
	Move Files	File>Move	Destination directory for moving files

## Local (Database Specific) Parameters (THUMBS.TUO)

<i>Section</i>	<i>Parameter</i>	<i>Menu/Dialog box</i>	<i>Description</i>
[Startup]	InitialDirectory	Options>Save Startup Directory	Initial open directory in the directory list.
[FileTypes]	SelectedTypes	Options>File Types	List of file types which are selected in the File Types dialog box.
[Options]	AutoCropClipboard	Options>General	Set to one (1) to automatically crop images when copied to the clipboard.
	AutoCropThumbnail		Set to automatically crop images when making thumbnails
	AutoCropView		Set to automatically crop images when viewing.
	MinimizeOnCopy		Set to automatically minimize the ThumbsPlus window whenever an image is copied to the clipboard.
	MinimizeOnView		Set to automatically minimize ThumbsPlus whenever an image is viewed.
	MinimizeOnEdit		Set to minimize ThumbsPlus whenever an image is passed to an external editor.
	AutoRemoveOrphans		Set to automatically remove orphans when changing to a new directory.
	DefaultAction		Specifies the default action to perform when double-clicking an image.
	Font		The parameters for the font used for the file and directory lists. (size; weight; italic; typeface; style)
[FileList]	Order	Options>File List	Specifies the order in which files are listed.
	ShowFlags		Coded value for what to show for each file.
	UseMask		Whether or not to use a file mask rather than the list of selected types from the Options>File Types dialog box.
	Mask		The file name mask to use for the file list.
	ThumbnailSize		The size of thumbnails, in percent (100, 150, 200).
	ShowFontNames		Whether to show font names rather than the file names for TrueType fonts.

[Menu]	IndicateExpandable Branches	Tree>Indicate Expandable	Show expandable (or collapsible) directories with a "+" (or "-").
	IndicateBranchesWith Thumbnails	Tree>Indicate Thumbnails	Show directory branches with thumbnails by color-coding.
	ShowThumbnail BranchesOnly	Tree>Show Thumb Dirs Only	Only show directory branches with thumbnails.
	ShowOfflineVolumes	Tree>Show Offline Volumes	Include off-line (i.e., diskette and CDROM) volumes in the directory list.
	StatusLine	Options>Status Line	Hide (0) or display (1) the status line.
	Toolbar	Options>Toolbar	Hide (0) or display (1) the toolbar.
	DirectoryListWidth	(none)	Specifies the last set directory list width (using the vertical spacer between the directory and file lists).
[Catalog]	Font	File>Print Catalog	Parameters of the font for catalog printing. (size; weight; italic; typeface; style)
	Margins	File>Print Catalog	Margins for the catalog pages (left, top, right, bottom)
	PrintFileNames		Print file names below thumbnails in catalog (0,1).
	CatalogTitle		Title to print at top of catalog.
	LineSpacing		Spacing between lines
	ThumbnailSize		Scaled size of thumbnails (100-1000 percent)
[PageSetup]	Columns		Number of columns of thumbnails
	LeftMargin, RightMargin, TopMargin, BottomMargin	File>Print Setup >Page Setup	Margins for image printing (in units defined from International Control Panel settings).
	StretchToFit		Stretch images to fit page (within margins).
	MaintainAspectRatio		Maintain aspect ratio when stretching images.
	DrawBorder		Draw a border around the image.
[SlideShow]	BackgroundColor	File>Slide Show	Color index for background color for slide show.
	DelaySeconds		Number of seconds to delay between "slides."
	ManualControl		Set to advance slides with left mouse or keystroke.
	StretchToScreen		Stretch images to fit screen.
	MaintainAspectRatio		Maintain height : width aspect ratio when stretching.
	HideCursor		Hide the mouse cursor
	ConvertMetafilesTo Bitmaps		Convert metafiles (vector graphics) to bitmaps before displaying.
	SkipSmallFiles		Skip any files smaller than the specified size.
	SmallFileWidth, SmallFileHeight		Minimum size of files to display in slide show
	RandomOrder		Set to process files in random order (shuffled).
[Viewer]	StretchImageToFit	File>View	Stretch images to fit window when window is resized.
	FitPageWidth		Stretch image to fit the width of the window (vertical scroll only).
	MaintainAspectRatio		Maintain the proper aspect ratio when stretching images or metafiles.
	DitherMetafiles		Use quick (unoptimized) display for metafiles.
InitialSize		Coded value for the initial window size.	

	BackgroundColor Index		Color index of background color.
	MaxViewWindows		Maximum number of view windows that may be simultaneously opened (2-40).
	AutoDisplay Comments		Automatically bring up a comment display window when viewing any image that has internal comments.
[Comments]	Font	View>View >Comments	Font parameters for displaying comments (size; weight; italic; typeface; style)

## Ordering Information



*Here's what Adam, Leah and Evan Crews think of people who use ThumbsPlus past the 30-day evaluation period without registering!*

**ThumbsPlus** is distributed as shareware for evaluation for thirty days (see License). Please remember that using unlicensed shareware past the evaluation period is unethical and illegal. To register and receive the latest version of ThumbsPlus, please complete the order form.

### Ordering ThumbsPlus Online:

CompuServe  
Internet

### Ordering ThumbsPlus by telephone (credit card orders)

Cerious Software, Inc.  
Public Software Library (PsL)

### Ordering ThumbsPlus by mail, fax or phone:

<u>U.S.</u>	<u>Japan</u>
<u>Australia</u>	<u>The Netherlands</u>
<u>Belgium</u>	<u>United Kingdom</u>
<u>Denmark</u>	<u>Other Countries</u>
<u>Germany</u>	

## **CompuServe**

ThumbsPlus may be registered on-line on CompuServe by "GO SWREG." The registration ID for a single-user ThumbsPlus license is **1357**. You may also register several of the site license options via SWREG.

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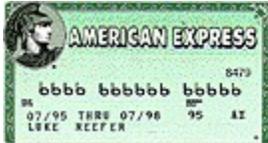
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PsL will notify us the day of your order and we will ship the product directly to you. Any questions about the status of shipment, refunds, registration options, product details, technical support, volume discounts, dealer pricing, site licenses, etc., must be directed to ***Cerious Software, Inc.*** directly.

## ThumbsPlus Order Form (U.S. and Other)



Click here to print this order form on 8.5x11 or A4 paper in portrait mode. If you do not have a printer, please write or type the information requested below. You may also use the order form built into the ThumbsPlus program ([File | Register](#)).

I like **ThumbsPlus** and want to register it. I understand I will receive the latest version, a printed manual, support via the Internet, CompuServe, America Online or telephone, and the peace of mind that comes with "doing the right thing."

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*1515 Mockingbird Lane, Suite 910*

*Charlotte, NC 28209 USA*

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## Japanese Version

ビレッジセンターでは、ThumbsPlus (サムズプラス) の日本語版を販売しています。Ver.3.0の日本語版は1996年6月より発売します。詳しくは下記までお問い合わせください。

株式会社 ビレッジセンター

〒101 東京都千代田区神田神保町3-2 サンライトビル6F

**Tel: 03-3221-3525 / Fax: 03-3221-8120**

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*Nakagami, Akishima*

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Fax: 0425-46-9142

CompuServe: 76663,124

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*Aabrinken 3*

*7850 Stoholm Denmark*

*CompuServe: 100342,1543*

## Order Form - Germany (English or German version)



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Hiermit bestelle ich zu Ihren Geschäftsbedingungen:

x registrierte Version Thumbs+Plus DEM 59.-- deutsch (2.0)

x registrierte Version Thumbs+Plus DEM 89.-- englisch (3.0)

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Nachnahme zuzüglich DEM 5.--

total: DEM \_\_\_\_\_

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D-86666 Burgheim-Wengen

Tel. +49-8432-1296  
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CIS. 100326,53

## Thumbs+Plus v3 Bestelformulier voor Nederland en België



**Klik hier om het formulier af te drukken!**

Met dit formulier kunt u de geregistreerde versie van Thumbs+Plus bestellen. Vul het formulier daartoe volledig in, en stuur het tezamen of gelijktijdig met uw betaling naar:

### **CopyCats Software & Services**

Postbus 1088

1700 BB Heerhugowaard (NL)

Tel/Fax +31 (0)72-5745993

E-mail 100121.1562@compuserve.com

U ontvangt uw bestelling dan binnen enkele dagen per post. Door registratie wordt u legaal gebruiker. U ontvangt een gedrukte handleiding (*geldt niet voor economy-versie*) en de nieuwste geregistreerde versie van de software. U kunt een beroep doen op technische ondersteuning en u wordt op de hoogte gehouden van het verschijnen van upgrades. De geregistreerde versie biedt diverse extra mogelijkheden, zoals digitale beeldfilters en effecten, histogrammen en ondersteuning van TWAIN scanners en .AVI, .MOV, .DXF en Adobe Type-1 bestanden. Bovendien kan hij bestanden in .ZIP-files rechtstreeks benaderen!

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___ x	<b>Thumbs+Plus economy version*</b>	á Dfl 89,95 / 1665 BEF	_____
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\*: De economy-version is identiek aan de 'full' version, maar wordt zonder gedrukt handboek geleverd.

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Genoemde prijzen zijn inclusief 17,5% BTW en order voorbehoud. Ook site-licenses zijn leverbaar - bel s.v.p. voor prijsinformatie.

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*Dank u voor uw bestelling!*

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**ThumbsPlus** is provided free of charge for a thirty day evaluation period. Any use beyond this period requires that **ThumbsPlus** be registered with the author, (*Cerious Software*). This registration fee will license **one** copy of **ThumbsPlus** for use on a single computer. Site licenses are also available.

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---

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Cerious Software, Inc. offers corporate and site licensing for ThumbsPlus™. These licenses provide all major upgrades to ThumbsPlus for one year, unlimited support by telephone or electronic mail (CompuServe or Internet), and maintenance releases when required.

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LPK-CORP	unlimited users	\$7,500.00
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Prices are in US dollars, effective 1 Feb 1996, and subject to change without notice.

## Ordering - Australia, New Zealand, PNG

*Click for the order form.*



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### **Australian Shareware Registration Price List**

Cerious Software, Inc. - SOLE Authorised Agent for Aust., PNG & NZ.

THUMBS+PLUS! v2.0d/v2.1 Graphics file manager, editor, viewer & catalogue for Windows  
AUS\$95

THUMBS+PLUS! PRINTED MANUAL\*  
A4 size, thermal bound \$15

THUMBS+PLUS! MANUAL ON DISK\*  
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THE MANDELBROT SET v3.0a  
Random graphics generator for Windows \$40

All programs are available as shareware at \$10 for the first disk & \$5 ea for subsequent disks (rebate if programs ordered are registered within 30 days).

\* All Manuals and Utilities Disks are available to REGISTERED USERS ONLY

Registration fees may be made by cheque/money order made out to:- Patrick O'Sullivan (address below) or by direct deposit. Deposit/Credit slips are available at any National Australia Bank branch. Just fill in the date, deposit amount and the appropriate boxes as follows:-

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## **[5001] Out of Memory**

ThumbsPlus was unable to allocate the amount of memory required to do the function you selected. Because ThumbsPlus loads each graphic into a single memory block, you cannot load a file larger than about 16 megabytes, which is the largest memory block that Windows will allocate. Also, you must have enough physical RAM available -- Windows 3.1 does not page pieces of a single memory block.

There are several things you can do to make more memory available:

1. Close (rather than minimize) any applications that you aren't using.
2. Close any ThumbsPlus view windows which are open.
3. You can increase the amount of virtual memory that is available for programs using the Enhanced 386 area of the Windows Control Panel. Please refer to your Windows documentation or the on-line help for information.

If all else fails, you can buy more memory!

If the problem seems unrelated to actual memory usage on your machine, please report it to Cerious Software.

### **[5003] Error creating thumbnail file**

ThumbsPlus could not create the thumbnail file. Some things that may cause this error are:

1. The file name is invalid, or the directory path or drive doesn't exist.
2. The disk is read-only or write-protected.
3. The disk is full.
4. The network drive is no longer available.
5. The file is locked by another application on your system, or by another system on the network.
6. You don't have sufficient permission to create files in the directory on the network drive.
7. The file information on disk is invalid; run SCANDISK or CHKDSK to validate file and directory allocations.

**[5004/<oscode>] Cannot open Thumbnail file '<filename>': <O/S error message>**

ThumbsPlus could not find or open the specified thumbnail database file. The error reported by the operating system should also be shown, and you can look up that error code here in this documentation.

## **[5006] Error reading Thumbnail file**

ThumbsPlus could not read from the thumbnail database file. This is generally caused by one of these problems:

1. The file is on a network drive which has become unavailable.
2. The file is corrupted, either internally or at the operating system level. In DOS, a SCANDISK or CHKDSK should be performed. The problem could be mis-allocated (cross-linked) sectors.
3. A sector or sectors on the physical disk drive have gone bad. A SCANDISK with surface check may find the problem.
4. For a CDROM database, either the CDROM itself has actually failed (my kids have broken a couple!), the drive is dirty or not operating properly, or the DOS CDROM access software (MSCDEX and the driver for the particular model) is corrupted. Try rebooting your system.

For hardware or disk allocation problems, consult your system or operating system documentation for steps to correct the problem. If you don't have a backup, you may have to delete your .TDB file and rebuild your database.

### **[5007] Error writing thumbnail file**

This error may be caused by several problems:

1. The disk or diskette is write protected.
2. A network drive has become unavailable.
3. Network permissions do not permit writing to the file.
4. The physical disk has bad sectors. A SCANDISK with surface test is recommended.
5. The allocation tables for the disk are invalid. A SCANDISK is recommended.
6. On a compressed partition, the operating system may not have reported the actual amount of free space, so ThumbsPlus sometimes cannot tell before writing that the disk would fill up. (When ThumbsPlus can tell, it reports error [\[5008\]](#)).
7. ThumbsPlus could not identify the drive as read-only when it opened the file. Except for some brain-damaged network software, this is not usually a problem.

### **[5008] Thumbnail file is full**

ThumbsPlus could not allocate enough space on the disk to add the thumbnail. If you have moved or deleted a large number of thumbnails in the current database, you may be able to reclaim some disk space by purging the database. Otherwise, you'll need to move some files to another disk or partition, or remove unnecessary files.

Often, the temporary directory (usually \TEMP or \WINDOWS\TEMP) fills with unneeded files which may be removed. You should reboot your system and check this directory. Any files there which are not needed (often beginning with unusual characters such as '~', or having the extension '.TMP') may be deleted to recover disk space.

If you don't have a specific temporary directory, these files are often placed in the root directory of the C: drive. Be careful removing files from the root directory, as there are many files there needed by the system.

**[5010] Error loading keyboard accelerators**

This error is reported during startup if ThumbsPlus cannot access the keyboard accelerator tables in the resource. THUMBS.EXE is most likely damaged, or your system is very low on memory (see [\[5001\]](#)).

**[5011] Cannot find resource <name>**

Many of the tables, icons, bitmaps, cursors, strings and other information required during running ThumbsPlus are stored in the THUMBS.EXE file as resources. ThumbsPlus could not locate one it expected to be there.

Most likely, the THUMBS.EXE file is damaged. Reinstall and try again.

**[5012] Cannot create file <filename>**

ThumbsPlus could not create the file. Several explanations are likely:

1. The file name, directory path or drive is invalid.
2. The specified disk is read-only or unavailable.
3. The network drive is unavailable.
4. You don't have sufficient permission to create files on the network drive.
5. The disk is completely full.

### **[5013] Error reading file**

This error appears when ThumbsPlus gets an operating system error attempting to read the contents of a file. It is generally caused by:

1. Internal file problems (i.e., pointers past end-of-file)
2. Invalid disk allocation information (run SCANDISK or CHKDSK to verify the integrity of your file and directory information on the disk).
3. A bad disk sector. Run SCANDISK with a surface test to see if there are bad (unreadable) sectors on the disk.
4. Disk drive failure.
5. A network drive becoming unavailable.

**[5014] Format error in file**

ThumbsPlus reports this error when it cannot process the contents of the file because they do not match published specifications, or because ThumbsPlus does not support the particular "flavor" of file. Sometimes ThumbsPlus will report this error for newer versions of a file type, as it no longer matches earlier specifications.

**[5015] Unsupported file format**

ThumbsPlus reports this error when it finds unusual values in file information which preclude it from processing the file.

This may be because of a limitation in ThumbsPlus (for example, YCbCr TIFF files are not currently supported), or because a field in the header which ThumbsPlus depends on to decode the file has an invalid or unrecognized value.

**[5016] Error accessing clipboard**

When ThumbsPlus attempted to open the clipboard (to copy or paste), another application had opened it without closing it. You may want to close other applications to see if you can find the faulty one -- applications should not keep the clipboard open.

If you cannot determine which application has locked the clipboard, restart Windows and try again.

**[5018] Filter not found for type <filetype>**

ThumbsPlus has been directed to use a Graphics Import Filter to access the file type, but the specified filter was not found or could not be loaded. Check the [File Type Configuration](#) for the file type and correct if necessary.

**[5019] Available memory restricted simultaneous open images to <number>**

You specified a number of open images larger than could be accommodated in the Viewer Options dialog box. Select a lower number to avoid this message.

Also, if you receive this message, you are probably running low on memory. The only memory ThumbsPlus attempts to allocate is for control information; no actual image memory has been allocated, so as soon as you try to operate on some file, you'll most likely get an [5001] Out of Memory error.

**[5020] GIF Library error**

The GIF library could not process the file. There will be additional information following this message which should give more detail for the problem.

**[5021] Error creating child window!**

ThumbsPlus failed during initialization or re-initialization to create a necessary window (i.e., the file list, the directory list or the toolbar).

This is a fatal error. ThumbsPlus will exit.

The only known causes are insufficient or corrupted memory. Restart Windows and try again.

**[5022] Do you really want to delete file '<filename>'?**

This is just a question to be sure you really want to remove this file from your disk (using either the File - Delete option, or the trash can on the tool bar).

You can disable this confirmation using the Options - Confirmations menu selection.

**[5023] Could not delete file '<filename>'**

ThumbsPlus was unable to remove the file. The most likely reasons are:

1. The file is on a read-only (CD-ROM) or write-protected disk.
2. The file is on a network drive and you do not have sufficient permission to remove it.
3. The file is open by another application on your system, or on another system on the network.
4. The file doesn't exist (the thumbnail is an orphan). In this case, you may remove the thumbnail without attempting to remove the file by using the Thumbnail - Remove menu option, or Shift+Delete.

**[5024] Unrecognized file**

ThumbsPlus could not identify the contents of the file. Note that ThumbsPlus uses the actual file contents rather than the file extension to make positive identification. The file may be in a format that ThumbsPlus does not support, or may be corrupted, or may be a more recent revision of the file format.

**[5025] Insufficient memory to load file**

ThumbsPlus could not allocate enough memory to load the file. For suggestions on making more memory available, please see error [\[5001\] Out of Memory](#).

Some file types which are compressed require quite a bit more memory to load than is indicated by their file size. For raster (bitmap) types, the memory required will be at least as much as the width x height x color depth. In some cases, file decompression may require large amounts of memory in addition to this.

**[5026] Do you wish to save changes to '<filename>'?**

This question is asked when closing a view window which has been modified by one of the editing functions. You can disable this question altogether using the Options - Confirmations menu selection.

**[5027] Really exit ThumbsPlus?**

This question verifies that you want to exit ThumbsPlus. It is only active if enabled from the Options - Confirmations dialog box.

**[5028] Image has too many colors (>256) to save as a GIF file**

GIF files are limited to 256 colors (8-bit color depth), and the current image is 24-bit. You must use the Image - Color Depth menu option (or the Color Depth button for batch conversion) to convert the file to 8-bit indexed color to save it as a GIF file.

**[5030] Cannot execute command '<command>'**

ThumbsPlus could not execute the command (most likely specified in the File Type Configuration dialog box). Check the command for syntax, and be sure that the program specified is either in a directory specified by the current PATH environment variable, or that the complete path is specified in the command line.

**[5035] Error creating font resource for '<filename>'**

ThumbsPlus could not temporarily install the font to generate a thumbnail or view of the character set. Generally, this is caused by a write-protected Windows SYSTEM directory, or by the disk being full. It may also be caused if the font resource file already exists.

**[5036] Error adding font resource for '<filename>' to system.**

ThumbsPlus could not add the font resource to the system. Possible problems include:

1. Insufficient network privilege to write the Windows or Windows System directory.
2. Insufficient memory or system resources. Try exiting Windows and restarting.

**[5037] Could not match font in file '<filename>'**

ThumbsPlus could not find the font name specified in the font file after it added to the system temporarily.

Usually this is caused by:

1. Invalid information in the .TTF file.
2. ThumbsPlus searching for the font name in a different encoding than Windows (both try to handle as many encodings as possible, but the order and types of encodings supported by Windows are not (yet?) documented, so we're doing our best!)

Please let Cerious Software know the font name and vendor of any fonts producing this message.

**[5038] '<filename>' is not a directory**

When browsing for a directory, you entered a directory specification that was not valid. Check the entry or use the browse directory list to select the directory.

**[5039] Directory <directory> does not exist; do you wish to create it?**

You specified a directory which does not exist. ThumbsPlus can create this directory if you want it to -- just click YES. If you entered an incorrect specification, click NO.

**[5040] Unable to create directory '<directory>'**

ThumbsPlus could not create the directory. This is generally caused by the same sorts of problems reported by error [5003].

**[5041] The file '<filename>' already exists; do you want to overwrite it?**

ThumbsPlus saw that the file you specified was already there. Click YES to replace it, or NO to leave it alone.

## **[5042] Cannot open**

ThumbsPlus could not open the specified file. Some probable causes are:

1. The file no longer exists.
2. The network drive is no longer available.
3. The file is locked by another application on your system, or by another system on the network.
4. The file information on disk is invalid; run SCANDISK or CHKDSK to validate file and directory allocations.

### **[5043] Cannot create**

ThumbsPlus could not create the specified file. Some probable causes are:

1. The file name is invalid, or the directory path or drive doesn't exist.
2. The disk is read-only or write-protected.
3. The disk is full.
4. The network drive is no longer available.
5. The file is locked by another application on your system, or by another system on the network.
6. You don't have sufficient permission to create files in the directory on the network drive.
7. The file information on disk is invalid; run SCANDISK or CHKDSK to validate file and directory allocations.

**[5044] Error writing file**

ThumbsPlus could not write to the file. Most likely causes are the same as for error [5007].

**[5045] Could not delete (file was copied)**

When moving a file, ThumbsPlus was unable to delete the original, so the file was copied instead. Possible reasons that ThumbsPlus could not remove the original are the same as for error [5023].

**[5046] Do you really want to move the selected files to <directory> ?**

If the 'Moving files' box is checked from the Options - Confirmations dialog box, this question will be asked before ThumbsPlus moves files.

**[5047] Do you really want to copy the selected files to <directory>?**

If the 'Copying files' box is checked from the Options - Confirmations dialog box, this question will be asked before ThumbsPlus moves files.

**[5048] JPEG error: <message>**

The JPEG library encountered an error attempting to read the file. More information about the specific problem should follow.

**[5049] Load aborted by user**

This message displays if you abort loading a file (by pressing the ESC key).

**[5050] The page size selected is not large enough to contain the catalog. Please select a larger page size and try again.**

The selected page size is not large enough. Since ThumbsPlus can print as small as diskette labels, the selected size must be really small!

**[5051] Invalid margin(s) specified**

You have selected margins that are either:

1. Smaller than allowed by your printer (for example, most LaserJets do not allow margins less than about .25 inches).
2. Too large (there's no space left to print after accounting for the margins).

**[5052] ThumbsPlus cannot access the printer.**

ThumbsPlus could not open the printer. Use the Windows Control Panel to be sure that a valid printer is configured and set as the default.

**[5053] No files could be loaded for the slide show, or all loadable files were too small**

Of the files selected, none were capable of being shown -- either because the file type was not recognized or not viewable, or because the files were smaller than the minimum dimensions specified in the Slide Show Options dialog box.

**[5054] <filename> is not a ThumbsPlus thumbnail catalog file**

The file you selected is not a valid database (.TUD) file. If it **was** a valid file previously, then most likely the header information has been corrupted. You may want to run SCANDISK or CHKDSK to check for file system problems, and you'll have to reload the file from backups.

**[5055] Unable to create dialog box. ThumbsPlus is most likely corrupted and should be reloaded.**

ThumbsPlus could not create a dialog box for the selected function. Other possibilities (besides THUMBS.EXE corruption) are:

1. The Windows system is hosed and needs to be restarted.
2. Memory or resources are very low, so Windows should be restarted.

**[5057] Unable to rename '<filename>' to '<new name>'**

ThumbsPlus could not rename the file. Most probable causes are:

1. The file is on a read-only (CD-ROM) or write-protected disk.
2. The file is on a network drive and you do not have sufficient permission to rename it.
3. The file is open by another application on your system, or on another system on the network.
4. The file doesn't exist (the thumbnail is an orphan). In this case, you may remove the thumbnail by using the Thumbnail - Remove menu option, or Shift+Delete.

**[5058] Corrupted file**

ThumbsPlus could not read the file because of errors in its internal format.

**[5059] No image data in file**

The file does not contain any information that can be viewed.

**[5060] The file <filename> is currently locked. Do you want to retry?**

The file is in use by another application or another system on the network. Answer YES for ThumbsPlus to try to open it again; answer NO to skip the operation.

**[5061] File is empty**

There is no information in the file (it has a length of zero). Except in the case of special "sentinel" files for some weird applications, such files may usually be deleted.

**[5062/<oscode>] Cannot open**

ThumbsPlus is unable to open the file. Additional information (an operating system message) should follow this message. You can look up that error code in this document for more information.

**[5063] Thumbnails have been generated for this disk (<drive:label>). If you relabel it, these thumbnails will still be accessible, but ThumbsPlus will not be able to ask for the correct disk. Do you wish to continue?**

Thumbnails have already been generated for the removable or network volume. If you put a new label on it, you should make the thumbnails again so that they will correspond to the disk. You can also remove the old thumbnails ([Thumbnail - Remove Tree](#)).

**[5064] Unable to write disk label to drive <drive>**

ThumbsPlus could not write the disk label. Note that ThumbsPlus cannot label:

1. CD-ROM drives.
2. Write-protected diskettes.
3. Network volumes

**[5065] Cannot access disk <drive>**

ThumbsPlus could not access the specified disk drive. Be sure the disk is valid, formatted, and inserted.

### **[5066] Could not locate CorelDRAW preview bitmap**

When CorelDRAW! (CDR) files are set for Internal loading (from the File Type Configuration dialog box), ThumbsPlus only loads the preview bitmap from the file. You must save Corel files with previews enabled.

Another option is to set up Corel files for OLE access, which does not use the preview bitmap (but it does require that CorelDRAW be installed on the machine). Note that Corel is a very slow OLE server.

**[5067] Internal error: attempt to free IMAGE structure already on free list**

This error should not occur -- please report it to Cerious Software if you receive it. Also, you should probably exit and restart ThumbsPlus, as its internal structure lists are no longer usable.

**[5071] TIFF Library error**

This message is used to report errors from the TIFF library. Additional information will follow with details about the problem.

We currently do not provide a reference for all of the possible TIFF error reports, though this is planned for the future.

**[5072] TIFF library warning (continuing)**

ThumbsPlus uses this message to report TIFF library warnings. The actual message text depends on the problem encountered.

TIFF file processing continues after the message.

**[5073] Error opening Undo file <filename>**

ThumbsPlus could not create or re-open the temporary file (for saving a copy of the image before performing the operation).

Be sure that your TEMP environment variable points to a valid, writable disk drive with sufficient free space.

**[5074] Error writing Undo file <filename>**

ThumbsPlus could not write to the Undo file. Make sure the directory specified in the TEMP environment is valid and on a writable disk drive with enough free space.

Large images take large amounts of disk space for the Undo file. For example, a 1024x768x24-bit image takes about 2.5 Mb of disk space. It can also take a while to write the undo file. The storage is released when the image is closed, so it's not a permanent use.

However, you can disable the Undo capability from the Options - Viewer dialog box.

**[5075] Error reading Undo file <filename>**

ThumbsPlus could not read from the Undo file. Make sure the directory specified in the TEMP environment is valid and on a writable disk drive with enough free space.

**[5076] Insufficient memory to read Undo buffer**

ThumbsPlus could not allocate enough memory to retrieve the image from the Undo buffer. See the information about error [\[5001\] Out of Memory](#) for information on memory usage.

**[5077] Unable to create palette for gamma test**

ThumbsPlus could not create a color palette for determining the proper gamma for your monitor. Be sure you're running a video mode with at least 256 colors, and that there is enough memory and free system resources.

### **[5079] OLE error attempting to link**

ThumbsPlus could not link with the server application to process the file. Ensure that:

1. The server application is loaded on the machine.
2. It has not been moved to a different directory or disk (unless you also updated the Windows Registration Database).
3. It is not already running, processing another OLE request, or busy with some other task.

Sometimes, the server application itself will report an error before ThumbsPlus reports this error. In this case, the error reported by the other application generally describes the problem (an unsupported file, for example).

#### ***Known OLE server problems:***

Designer 4.0 and 4.1 often fail when attempting an OLE link. This is unrelated to ThumbsPlus -- the same failures occur when linking from other applications. Micrografx is supposedly working on the problem.

Word for Windows and many other applications often have problems linking when a document includes linked or embedded objects of its own.

**[5080] '<filename>' is not an Aldus Rev 1 graphic import filter**

ThumbsPlus could not locate the proper routines in the specified .DLL or .FLT file to call it as an Aldus filter.

The most reliable way of finding and using external filters is to use the " Hunt for Filters " button in the File Type Configuration dialog box. ThumbsPlus will search any or all disks for Aldus Rev 1 filters. Then, you can associate the appropriate filter with a file type by selecting it from the drop-down list.

**[5082] There is not enough memory to count all of the 24-bit colors in this image. Would you like a count of the number of 15-bit colors instead?**

ThumbsPlus cannot allocate a buffer large enough to quickly count the actual number of distinct colors in the image (the buffer requires 2Mb, one bit for each possible color). You may count the number of distinct 15-bit colors instead (the buffer only requires 4K).

**[5083] Error opening as a CGM file**

The CGM processing code could not recognize the innards of the file as a CGM file. Note that ThumbsPlus only supports binary-encoded CGM files.

**[5084] CGM library error**

This message indicates a CGM library error processing the file. Processing stops when an error occurs.

**[5085] You must enter a value in this field**

The field in the dialog box requires a value. The field in error will receive the input focus (caret cursor) after you click OK.

**[5086] That extension is already defined**

This error is reported if you attempt to use the New button from Options - File Types to define a file type that is already set up. Double-click (or click Modify) to change it instead.

**[5089] Only one editing session can be active on a 256-color display**

Because editing (color adjustment) requires exclusive access to the palette on a 256-color display, you may only open an editing dialog box for a single image at a time.

**[5090] Unrecognized raw image grayscale size**

ThumbsPlus recognizes raw files by their physical size on disk (based on width x height, as entered in the THUMBS.INI file). The specified file does not match any size listed in the INI file. See the page on the Raw file type for more information on setting up raw files.

**[5091] Error opening as GEM metafile**

The GEM processing code could not recognize the file as a GEM metafile.

**[5092] Unrecognized or invalid EPS file**

ThumbsPlus only accesses EPS files with TIFF or WMF previews. The specified file may be a MAC format file (with a PICT preview), may have an EPSI preview, or may not have a preview at all.

ThumbsPlus only processes the preview image or metafile. No attempt is made to interpret the PostScript™ text.

**[5093] Invalid color depth (*number*) requested**

ThumbsPlus can modify files to 1-bit (bi-level), 4-bit (up to 16 colors), 8-bit (up to 256 colors), or Truecolor.

The most likely cause of this message is manually editing the .INI file and specifying an invalid color depth.

**[5094] I don't know how to save type '*type*'**

ThumbsPlus does not have provision for saving anything but raster or vector files. This error may be reported if you try to save a font file.

**[5095] CGM library warning**

This error is reported when the CGM library reports an error interpreting a CGM file. It should be followed by more detailed information about the specific problem encountered.

Processing continues after a warning.

**[5096] Invalid or unsupported IFF file**

ThumbsPlus detected a problem in the header of the (supposed) IFF file which made it impossible to process. If the file is recognized as a proper IFF file by other software, please send a copy to Cerious Software for evaluation.

**[5097] Invalid or unsupported GEM image**

ThumbsPlus could not process the IMG file as a GEM image. If other software recognizes the file as an IMG file, please send a copy to Cerious Software for evaluation.

**[5098] Can't create wallpaper from type <filetype>**

ThumbsPlus can only create wallpaper from metafile or raster graphics files. Fonts and movies, for example, cannot be used as wallpaper.

**[5099] Unable to add font**

ThumbsPlus could not add the font to the Windows environment. There may not be enough memory, or the font file may be invalid. The system may also report an additional error.

**[5100] Error removing font**

Windows could not remove the selected font; perhaps it is in use or corrupted. Try restarting windows and removing the font again.

### **[5101] Unable to create font resource (.FOT) file**

When installing a font, ThumbsPlus has to create a font resource file for Windows, and it could not. Some possible reasons:

1. The font resource already exists because an application removed the font without removing the .FOT file. You can delete the file manually.
2. The Windows system directory (usually \WINDOWS\SYSTEM) is shared and not writable.
3. The disk containing the Windows system directory is full.
4. The font resource already exists because an application removed the font without removing the .FOT file. You can delete the file manually.
5. Some other disk error or problem.

### **[5102] Could not locate font in WIN.INI for removal**

When you select to remove a font, ThumbsPlus attempts to locate it in the WIN.INI file and remove its entry, so it won't be loaded again when Windows starts. This message indicates that the font was not there. It's usually safe to ignore this message, but if you get it a lot, it probably means that some application is installing fonts without setting them up to be loaded at Windows startup.

**[5103] Could not locate facename in .FOT file**

ThumbsPlus attempts to locate the font face name in the font resource file (.FOT). It could not locate the appropriate area in the file. The FOT file may be invalid, or may not be a font resource file.

**[5104] Could not open WIN.INI file to update**

ThumbsPlus must manually update the WIN.INI file to perform some functions. It may not be able to if WIN.INI is write-protected or on a write-protected disk or network drive.

**[5105] Error writing WIN.INI to remove font**

ThumbsPlus could not write the WIN.INI file to remove the font entry. However, the original has not been modified (nothing has changed).

**[5106] The clipboard does not contain a palette to paste**

If the current palette selection in the Color Depth dialog is "Paste from clipboard," there must be a palette (or an image with a palette) on the clipboard to use.

**[5107] Error writing file. Check for a full or write-protected disk.**

Well, the most likely causes are covered in the message itself. Other possibilities are:

1. A corrupted file allocation table on the disk. Use SCANDISK or CHKDSK to validate the structure.
2. A bad sector on the disk. Use SCANDISK with surface test to check.
3. A network drive is no longer available.

**[5108] Can't convert <type> files to <type>**

ThumbsPlus cannot convert bitmap files to WMF files, except as bitmaps embedded in a WMF (which is a separate Save As or Batch Edit/Convert selection).

Conversion to vector format requires a tracing program, such as Adobe Streamline or CorelTRACE!

**[5109] Skipped: Destination file (<filename>) already exists**

Unless you select to overwrite existing files in the Batch Convert/Edit dialog box, ThumbsPlus will skip any conversion that would result in an overwritten file.

**[5110] Unable to convert <filename> to a format suitable for wallpapering**

Windows can only wallpaper with bitmap (.BMP) files. ThumbsPlus converts any other format to the BMP type (a temporary file) before installing as wallpaper. Some file types that ThumbsPlus handles, such as Sounds, do not make sense as wallpaper.

Other types, such as fonts and movies, are wallpapered using the thumbnail.

**[5111] Drive <drive> does not have enough available space to write the thumbnail record (in <filename>). There are only <number> bytes free. Free some space by deleting or moving files, or purging the database, then try again.**

Pretty much says it all, doesn't it?

**[5112] The native application was unable to render the file**

ThumbsPlus attempted to have the OLE server application draw the file into memory for viewing or thumbnailing, but the other application failed to do so. You may have received message(s) from the other application detailing the problem.

Please note that this problem is almost always a limitation or problem in the other application, rather than a problem in ThumbsPlus.

**[5113] Don't know how to print *<class>* files**

ThumbsPlus can print bitmaps (raster images) and metafiles (vector images). Most documents are imported as metafiles.

- Movies
- Sounds
- Other

## **[5114] Error printing <message>**

The message should give more information about the problem, such as:

- |                                       |   |
|---------------------------------------|---|
| <b><i>Print job aborted</i></b>       | The print job was aborted, probably by Print Manager or a network print server.   |
| <b><i>Insufficient disk space</i></b> | The disk used for temporary files is full.  |
| <b><i>Insufficient memory</i></b>     | There is not enough memory in the system to print the file. See the tips for error message <a href="#">[5001]</a> for ideas on increasing available memory. |

**[5115] No print routine defined for type <extension> (<file type>)**

The print method is set to "None" for the specified file type. If the print method is set to "internal" instead, but ThumbsPlus doesn't have the capability to print the type, error [\[5113\]](#) is issued instead.

**[5116] Unable to create or open temporary file for details**

ThumbsPlus writes any file details (TIFF tags, for example) to a temporary file. It was unable to create it, or unable to open it to read the details in. The disk may be full, unwritable, or corrupted.

ThumbsPlus writes this file in the directory specified by the TEMP environment variable.

**[5117] Cannot write to temporary details file**

ThumbsPlus could not write detail information to the temporary file. See [\[5116\]](#) for more information.

**[5118] Error reading temporary details file**

ThumbsPlus could not read detail information from the temporary file. See [5116] for more information.

**[5119] File details truncated**

ThumbsPlus is not able to display the entire detailed information from the file. Either the system is low on memory, or, for Windows 3.1, the list box was full to the maximum capacity allowed.

**[5120] File is incomplete (some image data is missing)**

The file does not contain all of the image data specified in its header, so some of the picture may not be available. The file may have been damaged on download, or truncated by SCANDISK if cross-linked sectors were found, or written incorrectly.

**[5124] No valid PhotoCD resolutions located in file**

PhotoCD files may be available at several standard resolutions; ThumbsPlus could find none of these in the .PCD file. It may still load the file, using whatever default resolution it can load as.

**[5125] Unable to copy <filename> to the clipboard (no metafile or bitmap contents)**

To copy a file to the clipboard, ThumbsPlus must be able to load it as a graphic (metafile or bitmap). Some types that cannot be copied to the clipboard:

- Movies
- Sounds
- Executables
- Other

**[5126] System resources are too low to attempt OLE access**

To avoid system problems, ThumbsPlus requires a minimum level of available system resources (GDI and USER space) before attempting to start an OLE server.

There must be at least 20% free GDI and 20% free USER space, and the largest available memory block must be at least 4K before ThumbsPlus will attempt OLE access.

**[5127] System resource levels are low. You may wish to exit some application(s) or restart Windows.**

ThumbsPlus periodically checks system resource levels and will warn you if they become too low to continue processing. It warns you if free GDI or USER space drops below 20%, or if the largest available memory block is less than 4K.

**[5128] ThumbsCD is unable to locate the required Registration file. If you've copied the catalog to your hard drive, be sure to copy the THUMBSCD.REG file to the same directory.**

ThumbsCD requires the THUMBSCD.REG file be located in the same directory as the THUMBS.TUD file. If you've copied this file from your CD-ROM to the hard disk (to improve performance, or to see the thumbnails without having to insert the CD-ROM), you must copy the THUMBSCD.REG file to the same directory.

**[5129] Insufficient space on drive <drive> for sorted thumbnail file (<number> bytes required)**

When sorting the thumbnail database, ThumbsPlus complete re-writes the file. If there is not enough space on the disk to encompass the new, sorted database, you'll get this error.

Once the thumbnail file is sorted, the original is removed, freeing up its space; but, during the sort, there must be enough free space for both the original and the sorted database to be on disk simultaneously.

**[5130] Unable to create temporary thumbnail file for sorting (<filename>)**

ThumbsPlus could not create the temporary file for sorting. The name is displayed so you can check for problems on the disk. Note that once the sort is complete, ThumbsPlus will remove the original .TUD file and rename the temporary file to be the new .TUD file.

Check for a valid disk name, that the disk is writable, and that it is free from problems (SCANDISK or CHKDSK).

**[5131] Unable to copy font file <filename> to <font-directory> for installation**

ThumbsPlus copies any font files to be installed from removable media (diskette or CD-ROM) to the Windows system directory (or to the directory specified in the CopyToDir entry of the [Fonts] section of the THUMBS.INI file). The directory may not be accessible or the disk may be full.

**[5133] Please insert the disk containing <filename> in drive <drive>**

ThumbsPlus requires the disk that has the specified file name. This message is usually only generated if the THUMBS.TUD file is on removable media and the disk is removed. Also, if the database is on a network drive and the drive becomes unavailable, you may see this message.

**[5134] WPG Library error**

The WPG library could not process the file. The message should give more detail about the problem.

**[5135] WPG Library warning**

The WPG library could not completely process the file. Processing does continue after this warning.

Note that ThumbsPlus suppresses multiple identical WPG warnings to avoid needless repetition.

**[5136] Video for Windows is not installed**

You must install Video for Windows version 1.1d or later to view AVI files from ThumbsPlus.

**[5137] Only one animation may be active at a time**

ThumbsPlus can only play one animation (AVI or MOV file) at a time. Close the open animation window before attempting to play another, or use Window - Close All function to close all open windows.

**[5138] Please enter a number between <min> and <max>**

The current field requires a number between the specified values. When you click OK, ThumbsPlus will position the cursor and set focus to the control with the invalid entry.

**[5139] Are you sure you want to remove filter '<name>'?**

Just making sure that you really want to delete it...

## **[5140] Invalid path entered**

You have entered an invalid directory path or file name for your operating system.

For DOS, the rules are:

- » Each directory name must be a valid file name.
- » Directory names are separated by backslashes (\).
- » File names are 8 characters with a 3 character extension, separated by a period.
- » There can be only one period.
- » The following are not valid in file names or extensions:

- control characters

- space

- / slash

- \ backslash

- : colon

- ; semi-colon

- \* asterisk

- [ ] square brackets

- ? question mark

- | vertical bar (pipe)

- % percent

- » Lower case and upper case letters are considered equivalent.
- » Multinational characters may also be used.

**[5141] Unable to open data source**

TWAIN could not open the data source. Be sure that a TWAIN module is installed and valid for your scanner or other acquisition device. Also be sure the scanner is on and connected correctly.

**[5142] Unable to start data source user interface**

ThumbsPlus could not communicate with the selected device's user interface. Be sure that it's not active for some other applications, and be sure it is installed properly.

**[5143] Unable to read image from source**

The TWAIN data source may have aborted unexpectedly or otherwise failed, or the image may be in an unrecognized format.

**[5144] Unsupported bits-per-pixel from data source. ThumbsPlus requires 1, 4, 8 or 24 bits per pixel.**

ThumbsPlus cannot currently handle other scanned image formats, such as 2, 4, 16 or 48 bits per pixel. Use the data source user interface to select a bit depth that ThumbsPlus can handle.

**[5145] Unable to load palette from data source**

The data source failed trying to send the palette (color map) data to ThumbsPlus for an indexed image.

**[5146] Unsupported color mode. Please select bi-level, grayscale, RGB, or RGB palette.**

ThumbsPlus can only support scanning using these color modes. Here are some alternate names that a data source may use:

- » bi-level:            monochrome    black & white    bitmap
- » grayscale:        intensity        single channel    gray            black & white
- » RGB:              Truecolor       Full color        24 bit
- » RGB palette:     indexed         mapped            8 bit

**[5147] Error attempting to coordinate memory transfer**

ThumbsPlus retrieves images from a data source using memory transfers, and was unable to negotiate an acceptable method of retrieving the data from the source.

**[5148] Please close current acquisition dialog before selecting a source.**

You cannot use the File - TWAIN Select Source when an acquisition screen (File - TWAIN Acquire) is active. Close the scanner user interface window and try again.

**[5149] Unable to access Source Manager to select a data source**

ThumbsPlus could not access the TWAIN source manager. Make sure that TWAIN is properly installed on your system.

**[5150] Internal error**

An internal error was detected that indicates either a programming bug or a corrupted executable. Try re-installing ThumbsPlus; if that does not correct the problem, contact Cerious Software.

**[5151] Image is too wide to be filtered. The maximum width is approximately 9000 pixels (for grayscale images), or 3000 pixels (for color images).**

ThumbsPlus cannot currently filter images larger than this. This restriction will be removed in a future release.

**[5152] Only linear filters may be edited**

You may adjust the convolution mask only for linear filters. Other types (statistical, noise, and multi-pass) are defined internally.

You may create or modify multi-pass filters by editing the THUMBS.FLT file.

**[5153] Unable to allocate enough memory to filter**

ThumbsPlus cannot allocate enough memory for the filter buffer. See error [5001] for information on increasing the amount of memory available to ThumbsPlus.

**[5155] The mask defined for *<filter>* is all zeros**

An all-zero filter mask would produce simply an all-black image.

**[5156] <filename> does not have a palette**

To load a palette from a file, it should either be a ThumbsPlus .PAL file, or an image containing a color map (palette). Some types that often (but not necessarily always) contain palette are:

.BMP, .GIF, .IFF, .PCX, .IMG, .TIFF

**[5158] The width and height must be a value less than *<maxval>*, or a percentage less than *<maxpct>*%.**

Enter a non-zero value for the width and height. Use '%' to enter percentages; i.e., 50%.

**[5159] Common dialog error: <number>**

ThumbsPlus received an unexpected error from a Windows common dialog. The number may be useful for diagnosing the problem by Cerious Software .

**[5160] <filename>: JPEG warning: <warning>**

The JPEG library reported a warning about the file; however, the file was processed. If there are problems with the appearance of the file, this warning may give more information about why.

**[5161] Memory heap corruption: <heap name>**

ThumbsPlus's memory heap has been corrupted, either by a bug in the program or a problem with an external library. You may want to exit and restart ThumbsPlus.

**[5162] <filename>: file '<filename>' already exists; not overwritten**

The udecoded destination file already exists, so ThumbsPlus did not overwrite it. You can modify this behavior using Options - File Loading - UUdecode.

**[5163] <filename>: Unable to create uudecode output file '<filename>'**

ThumbsPlus could not create the output file specified in the Uuencoded file. The file name may be invalid, or you may need to change the output path (from Options - File Loading - UUdecode).

**[5164] <filename>: end-of-file and no continuation file found (while decoding to '<filename>')**

While uudecoding the file, ThumbsPlus could not find the 'end' record or a continuation file. Continuation files should have the same name as the first file, with the extensions '.002', '.003', etc.

**[5165] <filename>: Invalid input line in file (continuing)...**

An invalid line was found in the uuencoded file, but was skipped.

**[5166] <filename>: No 'end' record found**

ThumbsPlus could not locate an 'end' record in the uuencoded file. The file is processed through end-of-file instead.

**[5167] <filename>: Error deleting uudecode temporary file '<filename>'**

ThumbsPlus could not remove the temporary file used for uudecoding. It may have been removed by another program, or currently open. You can remove the file manually.

**[5168] <filename>: Cannot delete after decoding to '<filenaeme>'**

ThumbsPlus could not remove the original encoded file after decoding. It may be open by another program. You can remove the file manually.

**[5169] <filename>: <number> warnings encountered during decode to  
'<filename>'**

ThumbsPlus encountered several problems decoding the file. These warnings will be listed preceding this message.

**[5170] <filename>: Successfully decoded to '<filename>'**

The file was successfully decoded and written.

**[5171] <filename>: PNG library error: <error message>**

The PNG library reported an error processing the file.

**[5172] Database error: <error message>**

An error occurred accessing the database. Additional information is provided from the database library. You may need to rebuild your database using the Rebuild utility.

**[5173] Unable to register window class for toolbar**

ThumbsPlus could not create the toolbar. Your system may be low on memory or resources. Restart Windows and try again.

**[5174] Unable to copy '<filename>' to '<filename>'**

ThumbsPlus could not copy the file. This error should be accompanied by an error message from the system with more information.

**[5175] Unable to find any files in your selection to process for contact sheets/catalog.**

The current directory or sub-directories do not contain any files that ThumbsPlus could process for the contact sheet or catalog. Make sure that you've selected the correct directory, and that the desired file types are selected (Options - Preferences - File Types).

**[5176] <filename>: skipped — PhotoCD file is encrypted or watermarked for retrieval at <width> x <height>**

During batch processing, ThumbsPlus skips PhotoCD files that are encrypted or watermarked. You can process these files singly and enter the appropriate password when loading.

**[5177] Unable to print catalog**

ThumbsPlus could not print the catalog. This message is accompanied by a system error message describing the problem.

**[5178] Error initializing print job on printer '<printer>'**

ThumbsPlus could not start the print job. This message should be accompanied by a system message describing the problem in more detail.

**[5179] <filename>: Adobe Type Manager has not been installed, or is not active**

ThumbsPlus could not communicate with the Adobe Type Manager. Make sure ATM is properly installed and active.

**[5180] <filename>: Unable to match font name**

After loading the font, ThumbsPlus could not locate the name using ATM. The font may be corrupted or invalid.

**[5181] <filename>: Unable to load ATM font**

ThumbsPlus could not install the font. The font file may be corrupted or invalid.

**[5182] Unable to remove directory '<directory>'**

ThumbsPlus could not remove the directory. This message should be accompanied by a system message with more detailed information about the problem.

**[5183] The file <filename> is a system, read-only or hidden file; do you really wish to delete this file?**

You should verify that the file is not needed before deleting it.

**[5184] The directory '<directory>' is not empty. Are you sure you wish to delete this directory and all its files and subdirectories?**

Selecting "yes" will cause ThumbsPlus to remove the directory and *all* of the directories and files within it.

**[5185] TWAIN: Unable to open data source manager**

Ensure that 32-bit TWAIN is installed and properly configured on your system.

**[5186] Missing required COLORMAP tag**

The TIFF file is set as a color mapped file, but there is no color map tag. The software which created the file did so improperly.

**[5187] Unsupported image format**

The TIFF file has an unsupported image or color format. See the [TIFF information](#) for known limitations of TIFF file processing in ThumbsPlus.

**[5188] Insufficient memory for buffer**

ThumbsPlus could not allocate enough memory for the TIFF strip buffer. See error [5001](#) for more information on memory problems.

**[5189] This image has too many colors to save as a GIF file. Do you want ThumbsPlus to reduce it automatically?**

GIF files can only contain 256 colors, and the current image has more. Select "Yes" for ThumbsPlus to automatically reduce the color depth of the image before saving. ThumbsPlus will use a 256-color optimized palette and Stucki dithering.

**[5190] <filename>: Invalid TIFF compression for image; will compress using <method> instead**

Some TIFF compressions are valid only for certain color depths; for example, the CCITT Group 3 and Group 4 compression methods are only valid for bi-level (monochrome) images. In batch mode, ThumbsPlus uses another compression method instead (generally LZW).

**[5191] <filename>: Unsupported TIFF color mode**

ThumbsPlus does not support the color mode of the TIFF file; for example, L\*a\*b. More information about TIFF support can be found in the [TIFF information](#).

**[5192] ThumbsPlus cannot be run from a network after the trial period has expired.**

You must purchase a site or concurrent use license to run ThumbsPlus on a network.

**[5193] Warning: the ThumbsPlus trial period has expired. After a fifteen day grace period, you will not be able to run from a network.**

You must purchase a site or concurrent use license to run ThumbsPlus on a network.

**[5194] No network license installed. Please run ThumbsPlus from a local disk.**

Neither the executable (THUMBS.EXE) or the database (THUMBS.TDB) may be located on a network unless you have installed a site or concurrent usage license.

**[5195] Note: overwriting file <filename> with <filename>**

This message appears in the 'Errors Encountered' area of the progress box when you have selected "Yes to All" and a file is overwritten.

**[5196] Note: file <filename> already exists - skipping <filename>**

This message appears in the 'Errors Encountered' area of the progress box when you have selected "No to All" and a file already exists.

**[5197] Note: overwriting file <filename> with newer <filename>**

This message appears in the 'Errors Encountered' area of the when a newer file is overwriting and older file (you selected "Yes to Newer" from the replacement confirmation dialog box).

**[5198] Note: <filename> skipped; newer than <filename>**

The file was not overwritten because you selected "Yes to Newer" but the destination was newer than the file being moved or copied.

**[5199] The credit card number is invalid. Please enter a valid Visa or Mastercard number before printing.**

Double-check your card number.

**[5200] The credit card expiration date is invalid. Please enter the date in the form MMY; for example, 0797.**

Double-check your expiration date.

**[5201] Nothing is ordered. Please select a license before printing.**

Use the "License" drop-down to select the type of license you want to order.

**[5202] <filename>: Unable to load as DXF file**

The DXF library was unable to recognize and process the file.

**[5203] The disk in drive <drive>:\ has no volume label. Without a volume label, ThumbsPlus cannot generate thumbnails for it. Would you like to give it a label now?**

Click Yes to assign a volume label to the drive.

**[5204] The disk <drive>:\ has the same volume label (<label>) as <drive>:\.  
Without a unique label, ThumbsPlus will not be able to generate thumbnails for it.  
Would you like to relabel <drive>:\ now?**

Click Yes to assign a new volume label to the drive.

**[5205] <filename>: Error removing ATM font**

ThumbsPlus could not remove the ATM font.

*Note:* ATM fonts (PFB files) are supported only on Windows 95. Be sure that ATM 3.02 is installed and active, and that the font is not currently in use.

**[5206] <filename>: Unable to locate associated font metrics (PFM)**

Each ATM font is composed of two files: the .PFB file, which contains the actual font outlines, and the .PFM file which contains metric information. Both files must be present, and the .PFM files should be in the "PFM" sub-directory of the directory containing the .PFB files. This is the standard Adobe installation format.

**[5207] Unable to execute CSWATM16.EXE to obtain ATM font information**

The file CSWATM16.EXE should be in the same directory as the THUMBS.EXE program.

*Note:* ATM fonts (PFB files) are supported only on Windows 95. Be sure that ATM 3.02 is installed and active, and that the font is not currently in use.

**[5208] <filename>: The import filter encountered an exception while processing**

Windows detected that the import filter (.FLT) encountered a GPF, IPF or other unrecoverable error while processing. ThumbsPlus trapped the error and can continue processing; however, some resources or memory may have been lost until you exit and restart ThumbsPlus

**[5209] Note: file <filename> overwritten with identical file <filename> (which was deleted)**

You selected "Yes to same" for confirmation of moving files, and ThumbsPlus lists the files that are moved because they are identical.

**[5210] Note: file <filename> is different from <filename> (file not moved)**

You selected "Yes to same" for confirmation of moving files, and ThumbsPlus determined that these files were different, so the move did not complete.

**[5211] <filename> is a multi-page file containing <count> images. If you save with the same name, the other images will be lost.**

Although it can read them, ThumbsPlus does not currently save multi-page files. If you select File - Save while viewing such a file, this dialog box gives you the opportunity to select a different name so the other pages (images) are not lost.

You can also use the Edit - Split Pages menu selection to split a TIFF or DCX file into separate files for each page.

*Note:* This message is currently only active for .TIF files; DCX files automatically cause the Save As dialog to be generated, since ThumbsPlus cannot save in the DCX format.

**[5301] Filter does not recognize file**

The Aldus Rev 1 graphic import filter is not able to process the file.

**[5302] Picture too big for filter**

Some import filters may limit the size of file they can handle, and will report this error if a file is beyond its capacity.

**[5303] Invalid bitmap in file**

The file contains a raster image that is invalid, or that the filter cannot process.

**[5304] Invalid character in data**

The filter could not process the file because of an invalid character. The file is either bad or beyond the capability of the filter.

**[5305] Invalid token in data stream**

The filter could not process the data in the file. The file may be bad or a more recent version than the filter can handle.

**[5306] Failed to verify imported story**

The filter could not properly handle the data in the file.

**[5307] Unknown file type**

The filter cannot recognize the file.

**[5308] Not a WP file**

The filter could not recognize the file as a WordPerfect file. You should use the internal methods of ThumbsPlus for loading WP graphics instead.

**[5309] Invalid file data**

The data in the file is not compatible with the filter, or otherwise corrupted.

**[5310] Filter aborted**

The Cancel button was pressed, or an internal error occurred in the filter.

**[5311] Insufficient memory**

The filter could not allocate enough memory to process the file. See error [5001] for hints on making more memory available.

**[5312] Could not render missing system font**

Some font referenced in the metafile could not be found in the system.

**[5313] Resultant metafile too large**

The result of the conversion (a metafile) is too large to hold in memory, or too complex to render.  
The file cannot be processed by the filter.

**[5314] Invalid Lotus .PIC file**

Reported by the PIC import filter when the file is not recognizable as a Lotus .PIC file. It could be some other kind of .PIC -- several vendors have chosen that extension for graphics.

**[5315] Unable to lock memory handle**

This is probably an internal coding error in the filter; or the Windows global memory heap could be corrupted. Restart Windows and try again.

**[5341] Unsupported compression mode**

The import filter can only process some compression methods.

**[5342] Unsupported file version**

The file format has been updated, and the filter does not support this version of the file. Try to obtain a more up-to-date filter, or save the file in a different format.

**[5343] Unsupported color type**

The import filter does not support all color types; this file cannot be processed. You may want to use its native application to convert it to a different file type, or to a color type which the filter can process.

**[6001] Your current Windows display is not set for at least 256 colors...**

*...For the best viewing (especially of images), we highly recommend that you run ThumbsPlus with a 256 color (8-bit), Hicolor (15-16 bit) or Truecolor (32 bit) display driver.*

ThumbsPlus will run best on machines with Hicolor or Truecolor displays, and performs well on machines with 256 colors (palette-based). 16-color and monochrome display systems are not recommended unless you'll be working only with low-resolution images.

See the section on Windows Video Drivers for general information about Windows display drivers.

**[6002] This operation will cause the image to be promoted to 24 bit, so that proper color information can be interpolated.**

ThumbsPlus can only do some color operations on truecolor (24-bit) or grayscale images. If you plan to use the image on 256-color displays (or if you're running a 256-color display), you may want to reduce the color depth before saving the file.

**[6003] This operation will cause the image to be promoted to 8-bit grayscale, so that proper grayscale levels can be interpolated.**

ThumbsPlus can only do some grayscale or monochrome image operations on 256-level grayscale images. The current image has fewer than 256 levels, so it must be converted to 256-level (8-bit) grayscale before processing.

**[6004] JPEG-compressed TIFF files are not widely supported.**

*...For compatibility with other applications, you may wish to choose a different compression method.*

This is just a warning that the file type you have chosen may not be recognized by other programs. You may want to test other programs before deciding to use this type for many files.

**[6005] ZIP-compressed TIFF files are experimental and not widely supported.**

*...For compatibility with other applications, you may wish to choose a different compression method.*

This is just a warning that the file type you have chosen may not be recognized by other programs. You may want to test other programs before deciding to use this type for many files.

**[6006] Progressive JPEG files are not supported by many other applications.**

This is just a warning that the file type you have chosen may not be recognized by other programs. You may want to test other programs before deciding to use this type for many files.

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Drag-and-drop is the process of moving files by pointing with the mouse, clicking the left mouse button, and "dragging" to the desired location. In ThumbsPlus, you can use this method to move or copy graphics files.

## **Aspect Ratio**

---

The relation between the height and width of an image. For example, a square has an aspect ratio of 1-to-1 (the height is the same as the width).

## **Pixel**

---

A pixel is a dot in a raster image, or bitmap. Depending on the color resolution, a pixel takes from 1 to 24 bits to represent in memory and on disk. Therefore, an uncompressed bitmap which is 100 pixels wide by 100 pixels high can require from 10,000 to 240,000 bits (1250 to 30,000 bytes).

## Metafile

---

A metafile is a stored sequence of drawing commands which the computer can repeat to generate an image. Like vector graphics, metafiles can contain simple drawing commands (such as *line*, *rectangle*, *circle*, *arc*, *polygon*); they may also contain commands to set colors, fill areas, display text. Unlike vector graphics, metafiles can include bitmaps. Thus, metafiles are much more flexible than bitmaps, but they are more difficult for programmers to support and usually slower to display.

## **Grayscale**

---

A grayscale image contains various levels of gray. At its simplest form (two levels of gray -- black and white), this is a bi-level image. Usually, grayscale images contain from 4 to 256 levels of gray, though some file formats (notably TIFF) can store as many as 65,536 levels of gray per pixel.

## **Monochrome**

---

This term is sometimes used to refer to a bi-level graphic; other times it refers to a single-channel (grayscale) image. In ThumbsPlus, it is used as a synonym for bi-level.

## **Bi-level**

---

Of two intensities (generally black and white). Bi-level graphics are sometimes referred to as monochrome or black and white, but either of these terms can be misleading, as each sometimes refers to single-channel color, which can be grayscale. Bi-level is a much less ambiguous description of a one-bit-per-pixel bitmap.

## Bitmap

---

A bitmap (also known as *raster graphic*) is a graphics image composed of small dots (pixels). These dots can be simple on-or-off bits (a bi-level bitmap), or represent colors. Windows supports four levels of raster images: bi-level (1 bit per pixel), 16-color (4 bits per pixel), 256-color (8 bits per color), or 16 million color (24 bits per pixel, also known as Truecolor). Raster graphics do not generally scale to larger sizes very well; the dots become squares or rectangles and the image appears grainy. Also, raster images use lots of disk space and memory. However, they generally display faster than metafile or vector graphics and can show much more true-to-life detail than vector graphics. Scanned images, such as CompuServe GIF files, are raster images.

## **Autocrop**

---

A method to automatically remove same-colored borders from an image. In ThumbsPlus, this may be accomplished using the Edit - Autocrop menu option, or in batch mode from the Miscellaneous Batch Operations dialog box.

## Color Depth

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For images, Color Depth refers to the amount of information required to specify the color or level of a pixel. Here are some common depths (in bits), and corresponding common names for them:

1-bit	<u>Bi-level</u>	<u>Monochrome</u>
4-bit	<u>Indexed color</u>	<u>Grayscale</u>
8-bit	<u>Indexed color</u>	<u>Grayscale</u>
24-bit	<u>Truecolor</u>	<u>RGB</u>
32-bit	<u>CMYK</u>	<u>RGBA</u>
48-bit	<u>Truecolor</u>	<u>RGB</u>

## **Crop**

---

Cropping an image involves selecting an area and removing the rest. ThumbsPlus can crop manually (where you select the crop area) from the View Window; ThumbsPlus can also autocrop, removing unnecessary space from around an image. You can control when ThumbsPlus does this automatic cropping from the General Options dialog box.

## Color Quantization

---

Color quantization is the process of finding the best set of colors (palette) for representing an image. Two methods are provided in ThumbsPlus - *median cut*, which does a very good job for real-world (scanned or photographed images), and *popularity*, which does well for drawn images.

The popularity method simply picks the  $n$  colors used the most in the image; this tends to leave out colors for highlights in photographs, which are important even though not the most popular.

The median cut method assigns all available colors to boxes, then splits the boxes to determine a representative set of colors. There are three median cut options in ThumbsPlus: 5-bit, 6-bit and 8-bit. The more bits available for each color component, the more memory and time required to quantize, and the better color matches that are obtained.

## Gamma

---

Generally, gamma correction is a process to make pictures appear more accurately on a specific monitor. Differences in color value do not exactly map to changes in brightness on the screen; the gamma value defines a curve which specifies the way a monitor displays specific color values. The Monitor Gamma dialog box helps you find the appropriate gamma value for your monitor.

The other piece of the equation is figuring out the corrected gamma value to which an individual picture was adjusted. The CompuServe GIF definition specifies that GIFs should be adjusted for a gamma value of 2.0 -- you can set the "assumed gamma" for any picture, or set the default for any file type.

Generally, if pictures appear dark and have little detail in the shadow regions, they're probably linear (gamma = 1.0). Try setting your monitor gamma to an appropriate value, and the assumed gamma to 1.0.

**Note:** If either the assumed gamma or the monitor gamma is zero, ThumbsPlus will not gamma correct the image for display.

## **Desktop**

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The window that acts as the background for all windows in Windows 3.1. Other windowing systems generally call this the root window. Icons appear at the bottom of the desktop window.

Wallpaper appears on the desktop.

## Palette

---

A color palette is much like an artist's palette -- it's the selected color values that are used to represent an image. 24-bit (truecolor) images don't have a palette; each pixel includes the color information in it. When reducing a 24-bit image to an 8-bit or 4-bit image, you'll need to select an appropriate color palette, or have ThumbsPlus compute an optimized palette for you, using color quantization.

A palette stored with an indexed color image is also known as a *color map*.

## **Wallpaper**

---

A Windows bitmap displayed in the background (the desktop). From ThumbsPlus, this image may be tiled (repeated to fill the screen) or centered.

## **Graphic Import Filter**

---

A program or library (DLL) which can convert graphics from one format to another. Microsoft provides several filters with Word for Windows and other products. ThumbsPlus can sometimes use these filters to import graphics files, though because they are not written or supplied by Cerious Software, they cannot be guaranteed to work.

## **Token**

---

A sequence of letters or symbols which represent something else. For example, '%F' is a token which represents a file name in the editor command string invoked by ThumbsPlus.

## **Indexed color**

---

Indexed color images contain several colors or levels of gray and a palette (or color map) which specifies the color of each given level. Most indexed color images are 4 or 8 bits per pixel (16 or 256 colors).

## **CMYK**

---

This color specification derives from the names of the colors of inks combined for printing in color:

Cyan

**M**agenta

**Y**ellow

blac**K**

The more common method of specifying color for display is RGB (red, green, blue).

## **Truecolor (RGB)**

---

A truecolor image is most often represented by a full color value for each pixel of the image. In most cases, 8 bits (256 levels) each of red, green and blue (RGB). Other schemes may represent colors using other methods, such as HSI, HSL, YUV, YCbCr, L\*a\*b, or CMYK. Because RGB is the prevalent method for representing images for display, it is used internally by ThumbsPlus.

Some file formats may allow more bits per pixel (12 or 16), but the difference in image quality is usually slight. The chief advantage of a wider range of pixel values is less information loss during image processing.

## Dither

---

Dithering is a process which allows many colors to be represented by a few. For example, the standard Windows VGA driver only has 16 colors, and combines these in simple patterns (*ordered dither*) to represent many more. An ordered dither is acceptable when viewed from a distance, but often causes images to appear grainy and cluttered. Better dithering methods, called *error diffusion*, provide a better appearance, especially for real-world images. One key to a successful dither is providing enough and appropriate colors to work with (palette selection or color quantization).

ThumbsPlus provides several error diffusion dithers for use when reducing the number of colors in an image: Floyd-Steinberg, Burkes and Stucki; and a single ordered dither (ThumbsPlus Quick), which is used to quickly dither Truecolor (24-bit) images for an 8-bit (indexed color) display.

## **Profile (.INI file)**

---

Lists configuration options and selections for a program. The Windows profile is called WIN.INI; the general profile for ThumbsPlus is THUMBS.INI. Profile files are generally stored in the Windows directory to be unique for each user in a network environment. Also, ThumbsPlus stores database-specific options in a THUMBS.TUO file, in the same directory as the database. For more information on the THUMBS.INI file and THUMBS.TUO files, see [INI & TUO File Settings](#).

## **Identity palette**

---

An identity palette is a 256-color palette that includes the 20 reserved Windows colors in the first 10 and last 10 positions in the palette. Files created with such palettes may be somewhat quicker to display in 256-color display mode. Also, some graphics applications require files with identity palettes. You can make any palette with 17 or more colors (and 236 or fewer) into an identity palette by selecting the option in the Color Depth dialog box.

## **OLE (Object Linking and Embedding)**

---

Object linking and embedding is a method used in Microsoft Windows to connect documents of one type to another. For example, a Paintbrush picture (BMP) may be embedded in a Word document, or a Corel drawing may be linked into a Write file. ThumbsPlus can sometimes use OLE to create thumbnails of file types which aren't directly supported; see the File Type Configuration dialog box for more information.

## **Digital Image Filtering**

---

Digital image filtering performs processing on an image by combining or comparing individual pixels with their neighbors. Many interesting and useful affects can be obtained, such as sharpening, blurring, edge detection and embossing. Many such filters are available in ThumbsPlus from the Image - Filter - Select Filter menu selection.

Linear filters -- those with a fixed array (or *convolution mask*) defining how to combine a pixel with its neighbors to compute the result -- may be defined in ThumbsPlus using the Image - Filter - New Filter menu selection.

## **Path**

---

The DOS Environment variable which specifies where DOS and Windows look for executable files when no explicit drive or directory information is given. It is usually set in the **AUTOEXEC.BAT** file, which runs when DOS starts up.

Also, a directory specification may be referred to as a path.

## **CD-ROM**

---

A CD (compact disk) used to store data. ROM stands for "Read-Only Memory." You cannot write to a CD-ROM disk, but they are quite useful for distribution of large amounts of data, and much more reliable than floppy disks.

## **Compact**

---

To eliminate unneeded, unused or deleted space. In the context of ThumbsPlus, you can compact the database by selecting the Compact selection from the TDBUtil program (which comes with the registered version). This will release all disk space occupied by deleted or moved thumbnails so it can be used for other files.

Note that version 3 of ThumbsPlus will automatically re-use deleted space for new thumbnails, so compacting (purging) is not required nearly as often.

## Icon

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An icon is a small representation of something. Icons in the Windows environment are not usually worshiped; but judging by the size of some people's icon libraries, they're at least *admired*.

## **Resolution**

---

The resolution of an image describes the detail at which it was obtained, or at which it is designed to be printed. For example, a 300 dpi image was scanned at or designed to be printed at 300 dots per inch. (So, a 300 x 300 pixel image at 300 dpi should print as 1 inch by 1 inch).

Except in the U.S., resolution is usually referred to as dots per centimeter (dpc) or pixels per meter (ppm).

Note that changing the resolution of a bitmap does not change its information content -- resolution is really a hint to an application program to suggest a suitable size for printing. Most applications scale for the output device to present the image at or close to its original size.

Most applications also allow you to scale an image to a desired size. Also, many images do not contain resolution information.

## **TrueType**

---

A TrueType font is a font developed using a particular font technology which describes each character as a sequence of closed b-spline curves. There are also provisions for hinting, which provides better-looking characters at small point sizes.

## Font

---

A font is a particular type style. For example, Arial is the font in which this help file is rendered. ThumbsPlus can create thumbnails of and view character sets of TrueType fonts.

## Highcolor

---

This term usually refers to display hardware that is capable of reasonably good color depth, but not as realistic as Truecolor (24-bit).

Most high-color displays are 15-bit (32,768 colors -- 5 bits each for red, green and blue) or 16-bit (65,536 colors -- 5 bits each for red and blue; 6 bits for green because the eye is more sensitive to green).

Although high-color displays save some video memory, they generally run slightly slower than truecolor displays because of the translation requirement (Windows runs in truecolor mode, but the display driver must translate the 8-bits-per-pixel RGB pixels to the high-color representation).

## **Interpolation**

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Interpolation is a process of computing intervening values from given values (generally by averaging). For example, when ThumbsPlus changes the size of a bitmap, it can interpolate and compute the extra pixels as weighted averages (based on closeness) of neighboring pixels.

## **Rasterize**

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Rasterizing (or rasterization) is the process of drawing a metafile or vector graphic to a bitmap. This creates a fixed-size raster graphic from the metafile or vector graphic.

## **Thumbnail**

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A small representation of an image, used as an aid in indexing or cataloging graphics images.

ThumbsPlus is particularly adept at creating useful thumbnails for bitmaps , fonts and metafiles.

## **Vector graphic**

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Vector graphics are graphic objects composed of the definition of drawn shapes and lines -- rectangles, arcs, ellipses, curves, etc. Metafiles are similar, but more robust; they may also contain text and bitmap (raster) elements.

Because they are descriptions of shapes rather than a table of individual dots (pixels), vector graphics may be scaled more readily and more accurately than raster graphics.

## **CIE L\*a\*b**

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The L\*a\*b colorspace was designed by CIE to provide a device-independent way to specify colors. Photoshop PSD files can be saved in L\*a\*b format, as can TIFF files.

ThumbsPlus converts the colors to RGB based on default values for monitor settings.

