

ThumbsCD Version 3.0f



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Introduction



ThumbsCD is a graphic file viewer, locator and organizer that 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 ThumbsCD to browse, view, edit, crop, launch external editors, and copy images to the clipboard. ThumbsCD 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. ThumbsCD can convert to several formats. ThumbsCD will also convert metafile graphics to bitmaps (rasterize).

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

Thanks To...



Many thanks to everyone involved in the development and testing of ThumbsCD. 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 ThumbsCD.

Laura Shook, sister and Vice President, for her incredible devotion, unflagging support, and for being so wonderful to work with.

Jeff Hurley, Vice President, for his marketing savvy and much-needed attention to business details.

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.

Dino Ignacio, for the new and much prettier ThumbsCD icons. You can see his other work at <http://www.fractalcow.com>.

David Hanna, for excellent suggestions and great insight into what ThumbsCD should become (and I hope it has!).

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 ThumbsCD.

Ray McVay and **Mike Edgerton**, of 'Go Graphics,' for their continued support for ThumbsCD.

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**, and **Norbert Burkhard** 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 ThumbsCD: **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 that has thumbnails in the database. You can view the thumbnails without having to insert the CDROM.



An off-line floppy or removable drive that has thumbnails in the database. 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.

Disk Labels

Every disk or diskette used in DOS and Windows can have a volume label. ThumbsCD will use serial numbers instead if they are present. For read-only media (such as CD-ROMs), ThumbsCD will synthesize a name based on the first character of all files in the root directory if it has neither a serial number nor 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 ThumbsCD (resizes it to fill the screen). You can click this button again to restore ThumbsCD to its previous size.

Minimize

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

Title Bar

This caption shows the current program (ThumbsCD 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 ThumbsCD. 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:

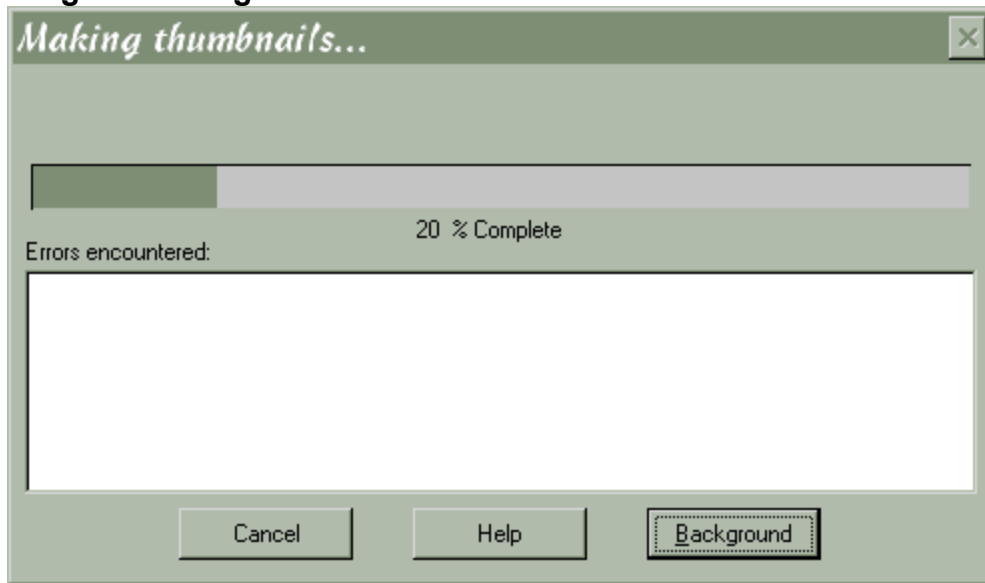
Progress

Browse

Confirm

Confirm File Replacement

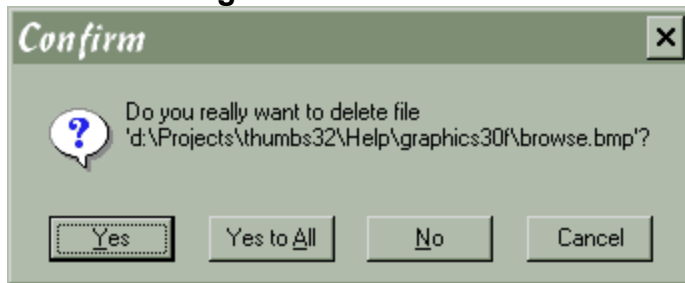
Progress Dialog Box



ThumbsCD displays this dialog box when doing something that may take a while, or when processing multiple files. Errors that occur show 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 that will minimize ThumbsCD 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.

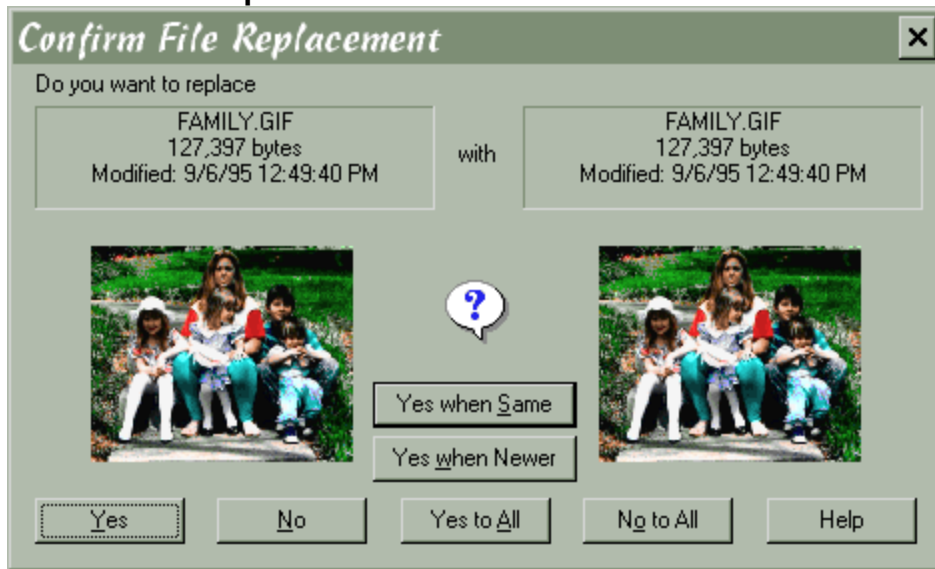
Confirm Dialog



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 that allows you to avoid confirming each operation individually.

When a file would be replaced by moving or copying *and* confirmation for overwriting files is turned on, the [Confirm File Replacement](#) dialog will be used instead.

Confirm File Replacement



When a move or copy operation would overwrite a file with the same name as the file being moved, ThumbsCD 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 ThumbsCD 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. ThumbsCD 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

Toolbar

This is the default toolbar supplied with ThumbsCD. 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.
1. 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.

<u>Press</u>	<u>To select</u>
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 that you want to select.
1. 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 that you want to select.
1. Press and release Shift+F8. The selection cursor begins to blink.
1. Move to the next file that you want to select.
1. Press the SPACEBAR to select each file.
1. 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.
1. Move to the selection that you want to cancel and then press the SPACEBAR.
1. Press Shift+F8 when you finish canceling selections.

Supported File Types

The list below shows the file types that ThumbsCD supports. Note that only a few of these may be present on the CD-ROM.

<u>.AVI</u>	Video for Windows files
<u>.BMP,.DIB,.RLE</u>	Windows Bitmap files
<u>.CAM</u>	Casio Camera format
<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>.EPS</u>	Encapsulated Postscript files (preview image only)
<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,.JPEG</u>	JPEG compressed files (in JFIF format)
<u>.KQP</u>	Konica camera native files
<u>.KIZ</u>	Kodak Digital Postcard files
<u>.MAC</u>	Macintosh Paint files
<u>.MID</u>	Windows MIDI files
<u>.MOV</u>	QuickTime Movies
<u>.PCX,.PCC</u>	ZSoft Picture files
<u>.PCD</u>	Kodak PhotoCD files
<u>.PCT,.PICT</u>	Macintosh PICT files (V1, V2, raster, vector)
<u>.PFB,.PSS</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>.STX,.ST5,.ST6,.ST7, .ST8</u>	Santa Barbara Instrument Group (SBIG) files
<u>.TGA,.WIN</u>	Targa Truevision™ files
<u>.TIF,.TIFF</u>	Tagged Image Format files
<u>.TTF,.TTR</u>	TrueType fonts

.UUE

UUencoded files

.WAV

Windows sound files

.WMF,.MF

Windows Metafiles and Placeable Metafiles

.WPG

WordPerfect graphics files

AVI: Video for Windows

AVI is the standard Windows video format.

ThumbsCD can play 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. ThumbsCD supports all color depths (1, 4, 8, 16, 24 or 32 bit), and the compressed (RLE) formats for 4-bit (RLE4) and 8-bit (RLE8) bitmaps.

BMP files compressed with video codecs or JPEG are not yet supported.

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.

ThumbsCD currently writes only uncompressed BMP files.

CAM: Casio Camera files

The CASIO QV series cameras generate CAM files. They are almost standard JPEG files; however, ThumbsCD must adjust their aspect ratio (using rotate/resize) when loading.

CDR, PAT, BMF, CMX: CorelDRAW and CorelGALLERY

ThumbsCD 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.

CEL: AutoDesk Animator Cel Files

ThumbsCD 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; ThumbsCD 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 (but much improved in 3.0e)
- 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

ThumbsCD 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, ThumbsCD 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. ThumbsCD 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 ThumbsCD.

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.

ThumbsCD 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

CompuServe, an on-line service, developed the GIF format 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. ThumbsCD 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.*

ThumbsCD 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.

ThumbsCD 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

ThumbsCD 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 as IFF. ThumbsCD supports all known IFF and LBM images, including HAM6, HAM8 and masked images.

ThumbsCD does not automatically correct the aspect ratio for files with non-square pixels.

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.

ThumbsCD 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, ThumbsCD 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 ThumbsCD. Some software (notably GIF2JPG, by Handmade Software), writes non-JFIF files which ThumbsCD cannot handle.

ThumbsCD 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](#).

ThumbsCD 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; too much color information is lost with dithering. See [JPEG Load Options](#).

IPTC/NAA information, stored by Adobe Photoshop and other software, can be extracted from JPEG files and displayed in **Picture | Properties | Info**. ThumbsCD retains the information if the file is written or converted to [TIFF](#) format.

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

KIZ: Kodak Postcard files

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

KQP: Konica Camera files

Konica camera files (.KQP) are mangled JPEG files. We have very few samples, but ThumbsCD handles all that we have.

MAC: Macintosh Paint files

MAC files are the original black & white raster graphics that the MacPaint program stored. They are always 720x576 bi-level images.

MID: Windows MIDI Music files

ThumbsCD 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.

MOV: QuickTime for Windows

MOV is the standard Macintosh video format.

ThumbsCD supports playing, viewing and manual thumbnailing (from any frame) of QuickTime files. ThumbsPlus cannot make thumbnails automatically (first-frame) of MOV files unless they include a JPEG preview (which is becoming more common).

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.

To play and thumbnail MOV files on Windows 95, you must load the 16-bit version of QuickTime (Windows 95 only supports 16-bit MCI drivers). If you wish to use the 32-bit QuickTime movie player, you can also load 32-bit QuickTime.

MPG: MPEG compressed video (R)

MPEG video files are compressed video files supported by many newer video cards and display drivers. ThumbsCD 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.

ThumbsCD 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)

There are some shortcut keys for selecting the display resolution on the fly: hold the following keys while double-clicking to cause the picture to load at specific resolutions:

CTRL:	Base * 4 (1536 x 1024)
ALT:	Base / 4 (384 x 256)
CTRL+ALT:	Base (768 x 512)

ThumbsCD 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 – ThumbsCD will request the password when such an image is requested at an encrypted or watermarked size.

PCT, PICT: Macintosh PICT format

The PICT format is the Macintosh's native drawing format (similar to WMF on Windows). ThumbsCD supports version 1, version 2 and version 2 extended formats. Vector (drawing) commands are handled as well as images. When ThumbsCD recognizes that a PICT file has only raster information, the file is loaded as a bitmap; otherwise, it is loaded as a metafile.

There are some commands in PICT files that are not handled, or not supported completely. We will continue to improve support for PICT over the next few releases.

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 ThumbsCD is 2-plane CGM files (4 color). These files may be supported in the future if there is sufficient interest.

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

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

PFB, PSS: Adobe Type 1 Font (R)

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

Notes:

PFB files are supported *only* on Windows 95. We do plan to support them on Windows NT when Adobe releases libraries for NT.

Version 3.02 or later of Adobe Type Manager is required.

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; ThumbsCD 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).

We may provide full Photoshop support at some point in the future (layers, channels, etc.).

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.

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

Santa Barbara Instruments Group manufactures and sells digital CCD cameras for astronomy. The camera software produces these formats. ThumbsCD can load both grayscale and color image; for 16-bit grayscale, ThumbsCD uses the range of pixels as last viewed or processed by SBIG software.

TGA, WIN: Targa Truevision™

ThumbsCD 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.

ThumbsCD 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

ThumbsCD 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, ThumbsCD updates the WIN.INI file to reflect the added or deleted fonts.

Under Windows 3.1, ThumbsCD never deletes TTF files from the disk (unless, of course, you use File | Delete).

Under Windows 95 and NT, ThumbsCD removes the TTF file from the Windows\Fonts system directory to remove them (and updates the registry). If you are browsing the Windows\Fonts folder directly, you may not want to remove fonts unless you know you have a copy elsewhere.

TIF: Tagged Image File Format

Several companies developed the Tagged Image Format, 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 that no single product can support completely.

The *known* TIFF formats not currently handled by ThumbsCD 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, ThumbsCD 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 (with appropriate license)
- 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

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

IPTC/NAA information, stored by Adobe Photoshop and other software, can be extracted from TIFF files and displayed in **Picture | Properties | Info**. ThumbsCD retains the information if the file is written or converted to JPEG format.

UUE, 001: UUencoded graphics

UUE files are graphics that have been encoded for 7-bit transmission using the 'uuencode' method. These files are very popular on the Internet, especially in the Usenet Newsgroups. ThumbsCD 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. ThumbsCD 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.

ThumbsCD 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.

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

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+A	Edit Clear All
Ctrl+C	Edit Copy
Ctrl+V	Edit Paste
Ctrl+A	Edit Select All
Shift+Ctrl+M	Edit Select Mask
F5	File Copy
Delete	File Delete
Shift+F6	File Install Font
Shift+F5	File Move
Shift+F9	File Print Catalog
Ctrl+F6	File Remove Fonts
Shift+Ctrl+F5	File Rename
F1	Help Contents
Ctrl+F1	Help Search for Help on
Ctrl+P	Options Preferences
Ctrl+L	Options File Loading
Ctrl+Y	Options Font
Ctrl+B	Options Customize Toolbar
Shift+Ctrl+D	Options Save for Startup Directory Path
Shift+Ctrl+T	Options Save for Startup Tree Size and Options
Shift+Ctrl+P	Options Save for Startup Window size & position
Ctrl+F	Picture Find
F7	Picture Center Wallpaper
Shift+Enter	Picture Edit
Ctrl+F9	Picture Page Setup
F9	Picture Print
F6	Picture Properties
Ctrl+F7	Picture Remove Wallpaper

Shift+Ctrl+F7	<u>Picture Stretch Wallpaper</u>
F8	<u>Picture Slide Show</u>
Shift+F7	<u>Picture Tile Wallpaper</u>
Enter	<u>Picture View</u>
-	<u>Tree Collapse</u>
Ctrl+-	<u>Tree Collapse all</u>
/	<u>Tree Collapse to Path</u>
*	<u>Tree Expand Branch</u>
+	<u>Tree Expand One Level</u>
Shift+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 Volumes</u>
Shift+Ctrl+O	<u>Tree Show Thumb Dirs Only</u>
Shift+F4	<u>Window Close All</u>
Ctrl+ F4	<u>Window Minimize All</u>
F4	<u>Window Show All</u>
Shift+Ctrl+L	<u>Window Status Line</u>
Shift+Ctrl+B	<u>Window Toolbar</u>

Main Window Menus

File

Edit

Tree

Picture

Options

Window

Help

File Menu

<u>C</u> opy...	F5
<u>M</u> ove...	Shift+F5
<u>R</u> ename...	Ctrl+Shift+F5
<u>D</u> elete...	Delete
<u>I</u> nstall Fonts	Shift+F6
<u>R</u> emove Fonts	Ctrl+F6
<u>P</u> rint Catalog...	Shift+F9
<u>#LJfile_exit#</u> Exit	Alt+F4

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 | 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.

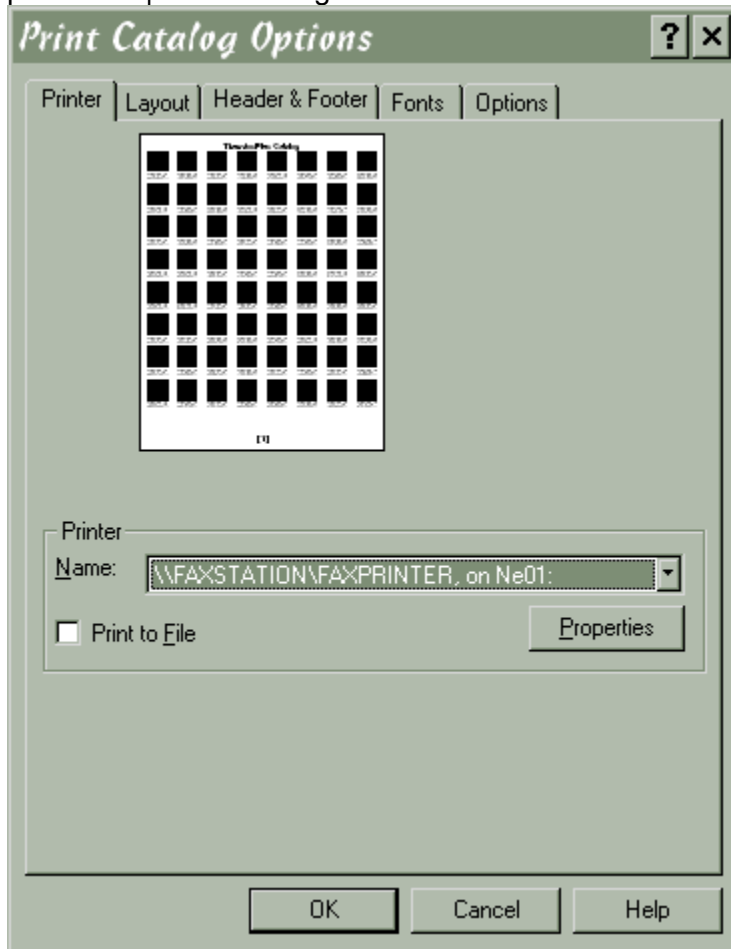
File | Rename Ctrl+Shift+F5

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.

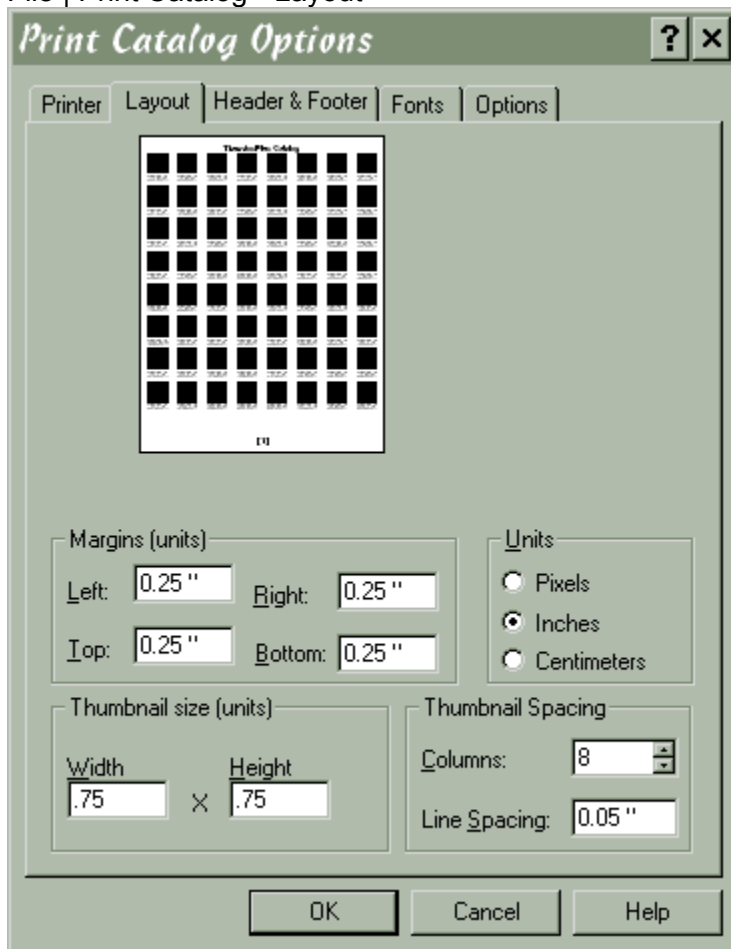
File | Print Catalog Shift+F9

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.

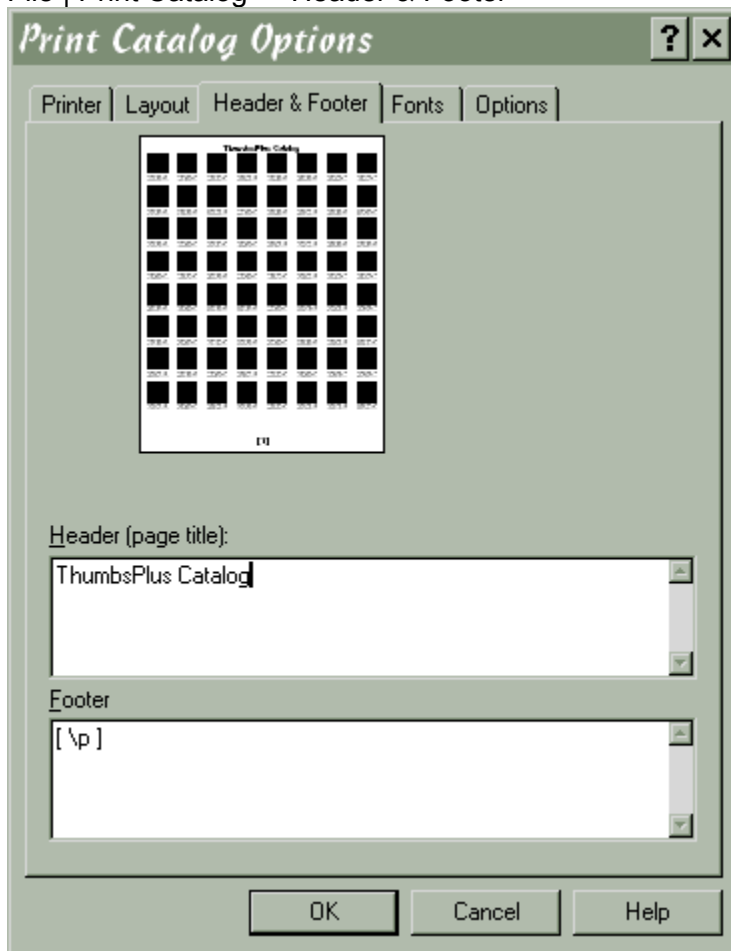
Margins. Select the left, right, top and bottom margins.

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).

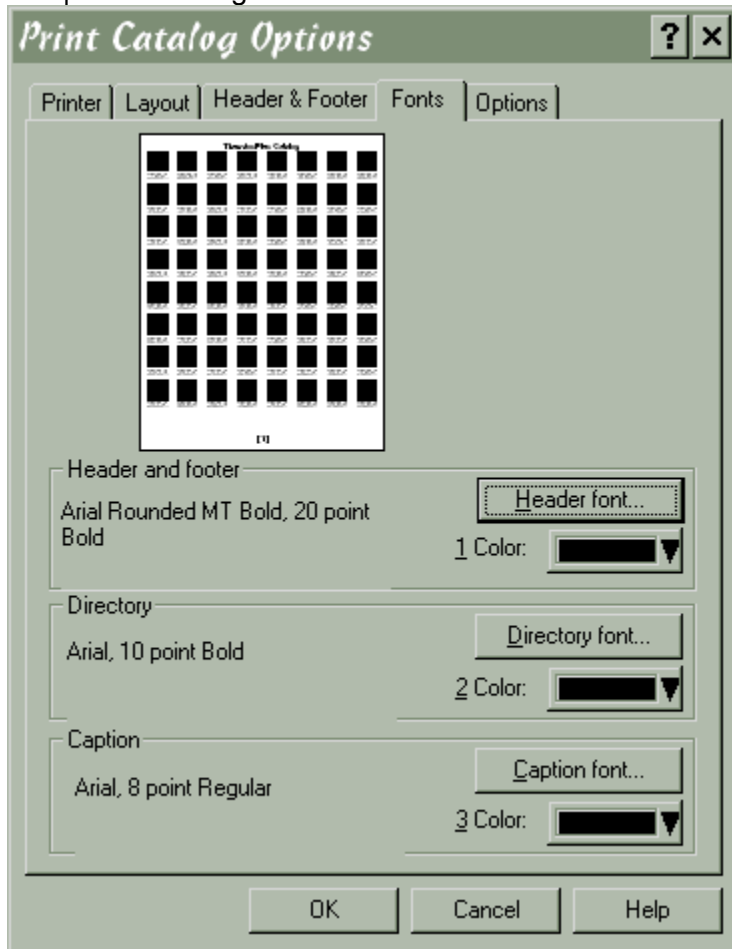
Columns. Selects the number of columns of thumbnails to present.

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

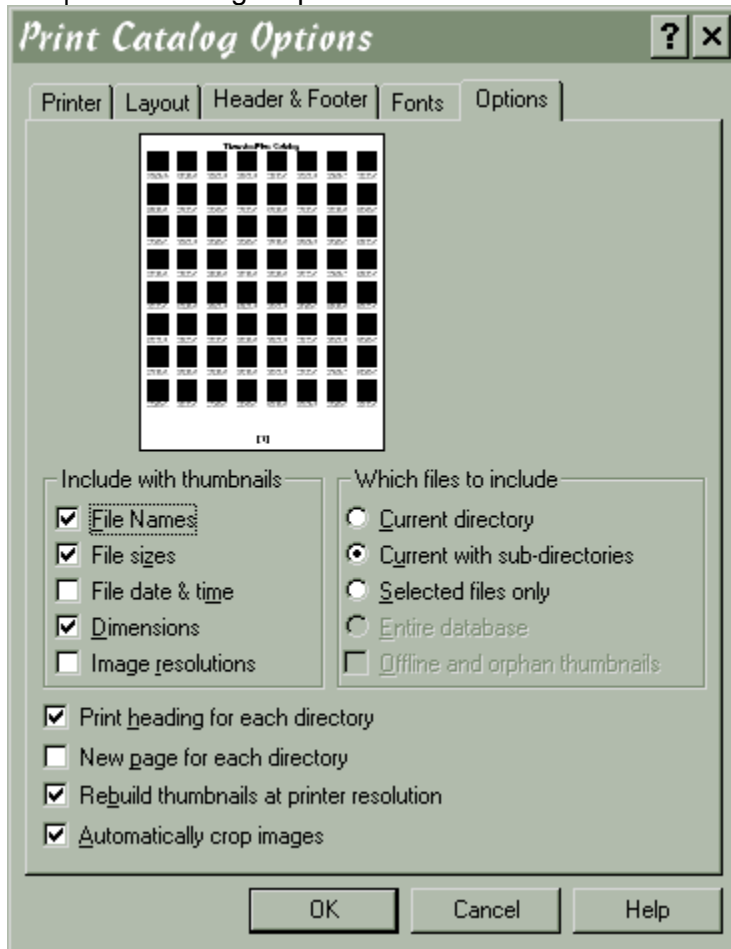


Use this tab to enter a **header** and **footer** for the catalog. Each may be multiple lines, and may contain the following tokens that ThumbsCD will use to substitute the appropriate value:

- \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 ThumbsCD 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 ThumbsCD 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 ThumbsCD to automatically crop images before making the thumbnails. This removes excess single-color borders from images.

File | Register ThumbsCD

Use this selection to fill out an order form for ThumbsCD 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 ThumbsCD

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 Selected...

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 ThumbsCD 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.

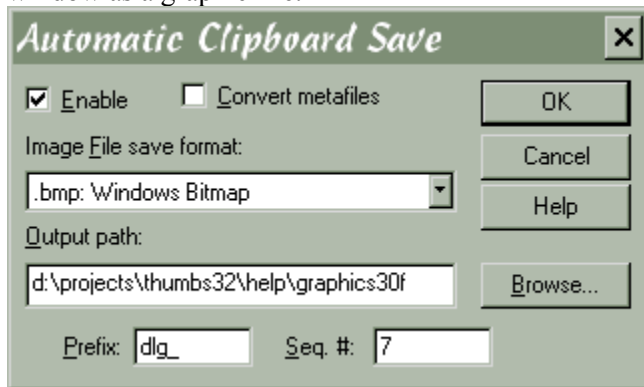
Edit | Select Mask Ctrl+Shift+M

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), ThumbsCD 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 SCRN here, and select BMP as the type, the files will be saved as SCRN0000.BMP, SCRN0001.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 ThumbsCD.

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

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 ThumbsCD 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 ThumbsCD to use differently colored folders to indicate "interesting" directories. Folders for directories that contain thumbnails are colored green; folders for directories that do not themselves have thumbnails, but whose subordinate directories do, are colored blue.

Tree | List Thumb Dirs Only Ctrl+Shift+O

Select this option to show only those directories that contain thumbnails.

Picture Menu

<u>V</u> iew	Enter
<u>E</u> dit	Shift+Enter
<u>P</u> roperties	F6
<u>S</u> lide Show	F8
<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>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.

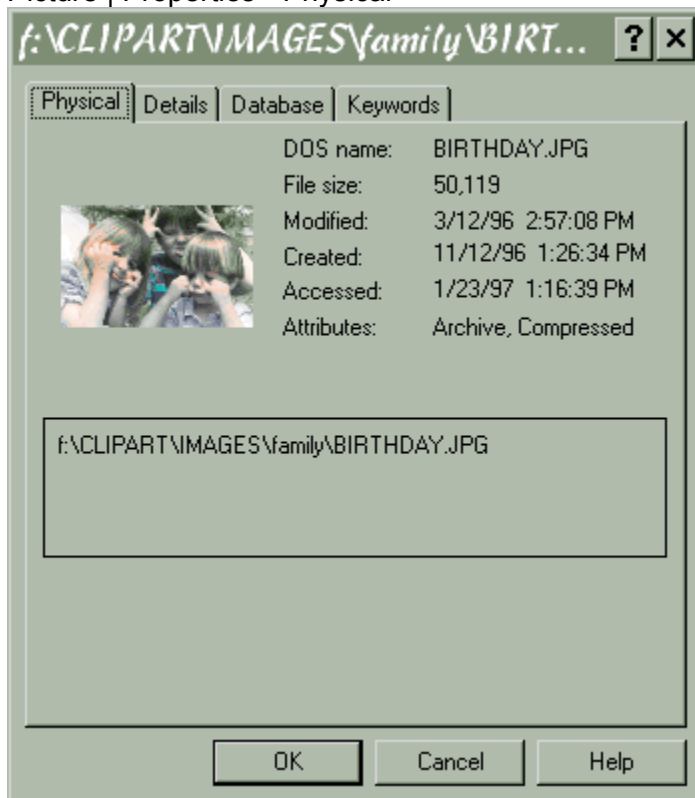
From the Options | Preferences • General dialog box, you can selecting Editing as the default (double-click) action for files.

Picture | Properties ***F6***

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

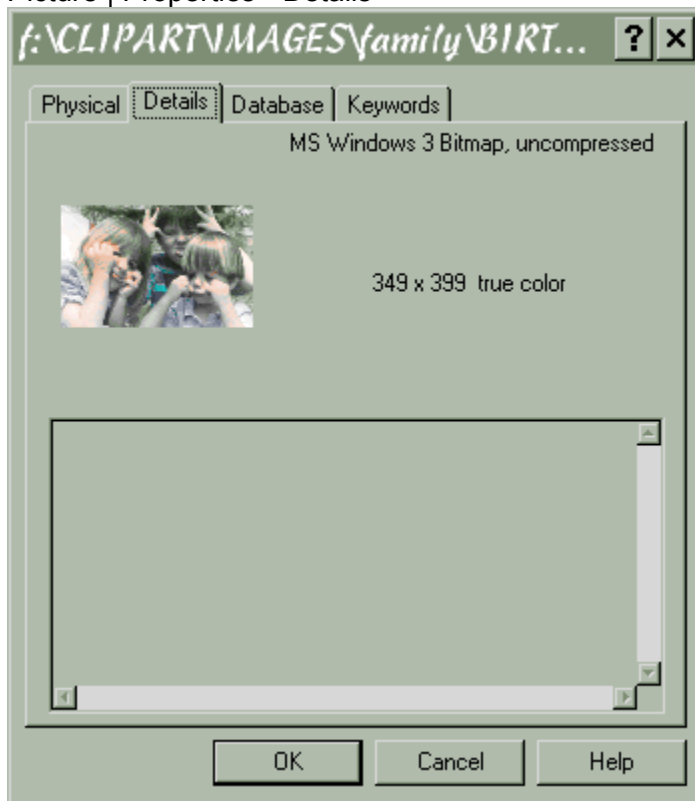
- Physical
- Details
- Database
- Keywords
- Info

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



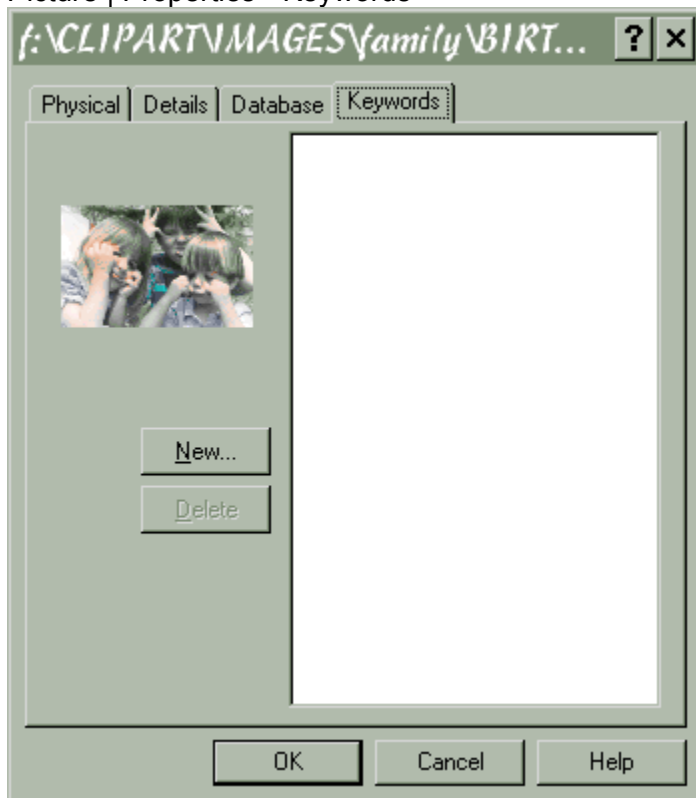
This tab in the Picture Properties dialog box shows detail information about the file (such as size in pixels, color depth, etc.)

Picture | Properties • Database



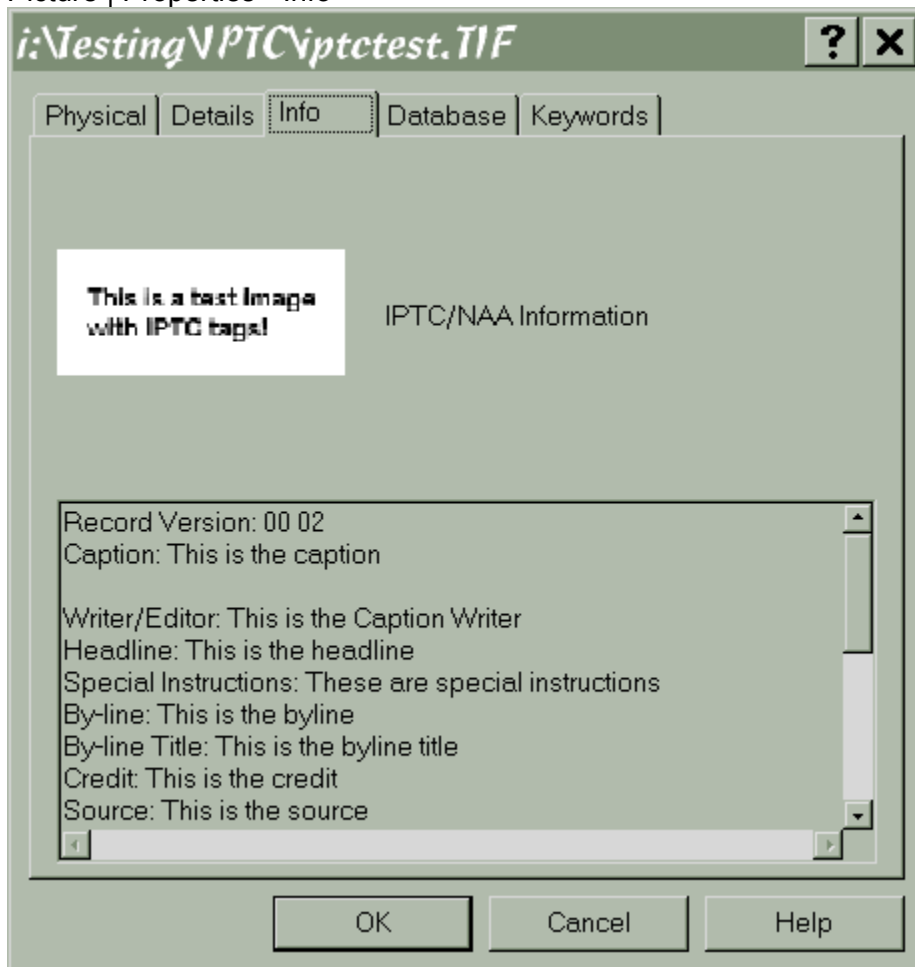
This tab in the Picture Properties dialog box shows information stored in the database about the file. You can also edit the **annotation** stored with the file.

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 | Properties • Info

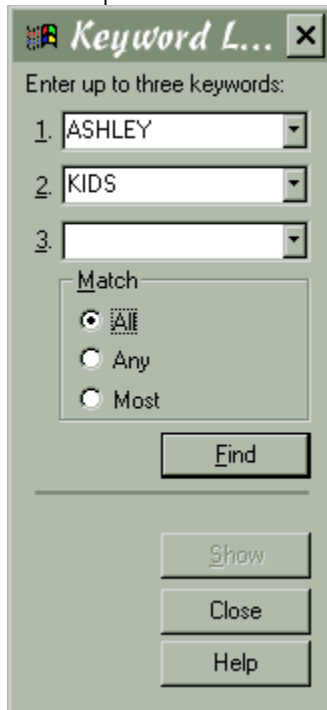


This pane shows IPTC/NAA captions and other information which are stored in JPEG and TIFF files by some software. It will also show the contents of an INF file if one exists in the same directory with the same name as the image file.

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 | 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.

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 | Stretch Wallpaper Shift+Ctrl+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.

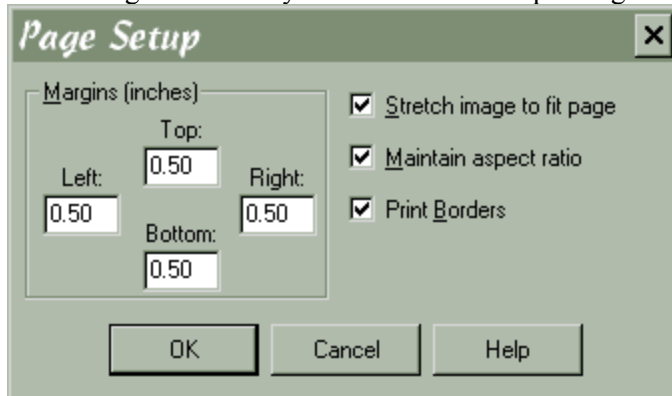
This option stretches the bitmap to fit the screen on Windows NT 4.0 and Windows 95 with the Plus! Pack. On other systems, the image is centered.

Picture | Remove Wallpaper Ctrl+F7

This options removes the Windows desktop wallpaper.

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 ThumbsCD to stretch the images to fill the printed page (within the margins).

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

Print Borders. Causes ThumbsCD 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.

Options Menu

<u>Preferences</u>	Ctrl+P
<u>Font</u>	Ctrl+Y
<u>File Loading</u>	Ctrl+L
<u>Customize Toolbar</u>	Ctrl+B
Save for Startup	
<u>Directory Path</u>	Ctrl+Shift+D
<u>Tree size and options</u>	Ctrl+Shift+T
<u>Window size & pos</u>	Ctrl+Shift+P
<u>Thumbnail Size</u>	
(50%, 75%, 100%, 150%, 200%)	
<u>Sort By</u>	
(Name, Type, Size, Date, Descending)	
<u>Show for Files</u>	
(Thumbnail, Name, Size, Date Dimensions, Resolution, Include Hidden)	

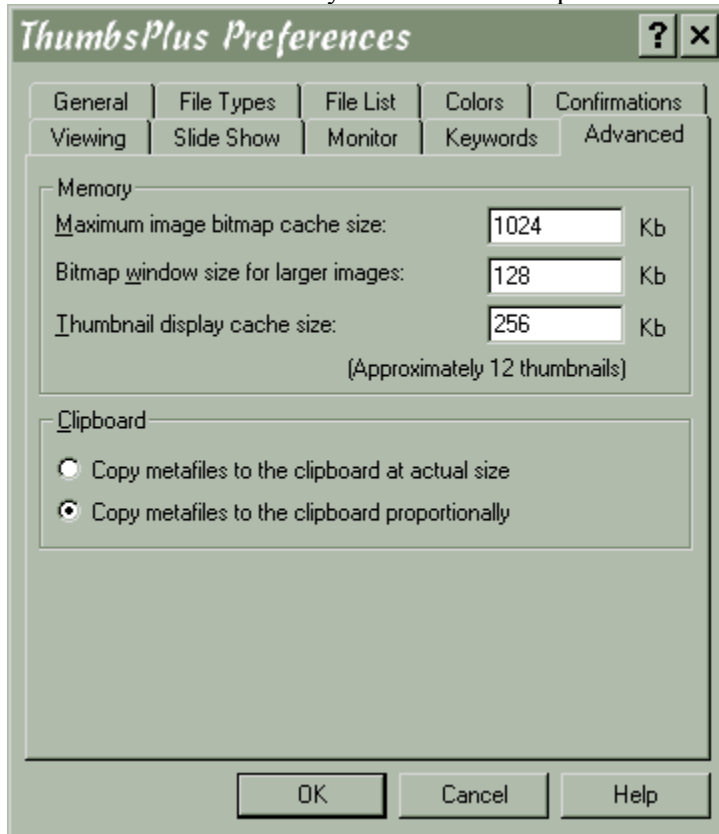
Options | Preferences Ctrl+P

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
- Advanced

Options | Preferences • Advanced

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



Maximum image bitmap cache size. For images that require less than this much memory to load, ThumbsCD 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, ThumbsCD uses a bitmap "window" to display the image a piece at a time. This parameter selects the size, in Kbytes, of that window.

Thumbnail display cache size. ThumbsCD maintains a cache of thumbnails in memory. This field specifies the amount of memory to use. If you specify a larger size, the file list will display more quickly. The approximate number of thumbnails that the size will support is shown.

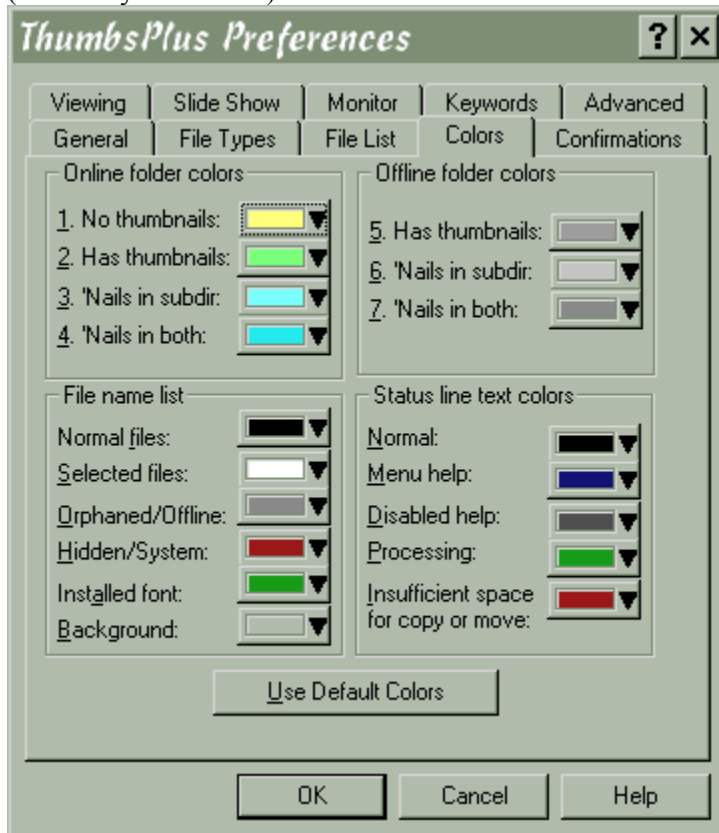
Setting this field to zero works around problems with some display adapters and drivers.

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.

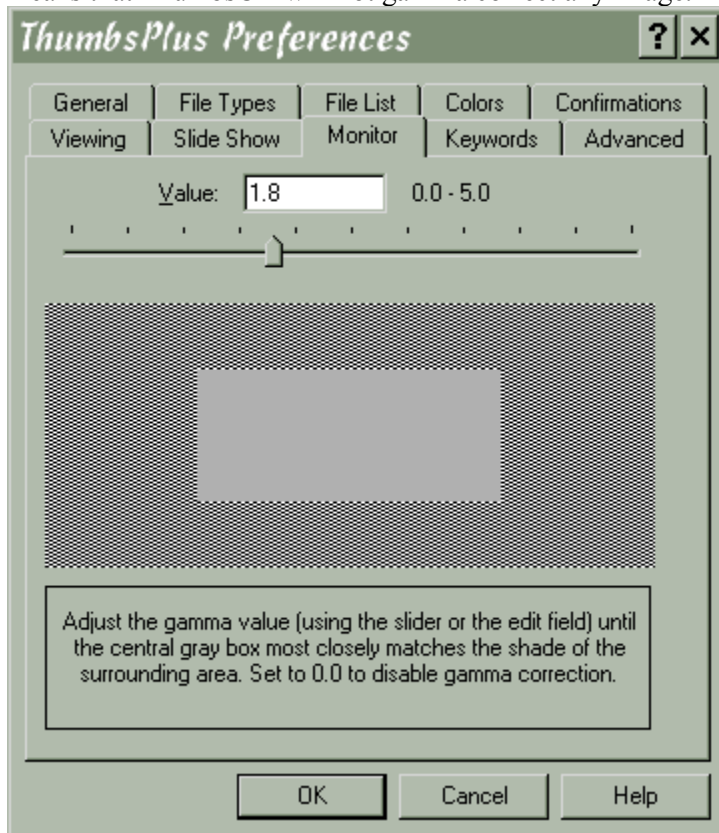
Options | Preferences • Colors

Use this tab to select the colors for the various ThumbsCD 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 • Monitor Gamma

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

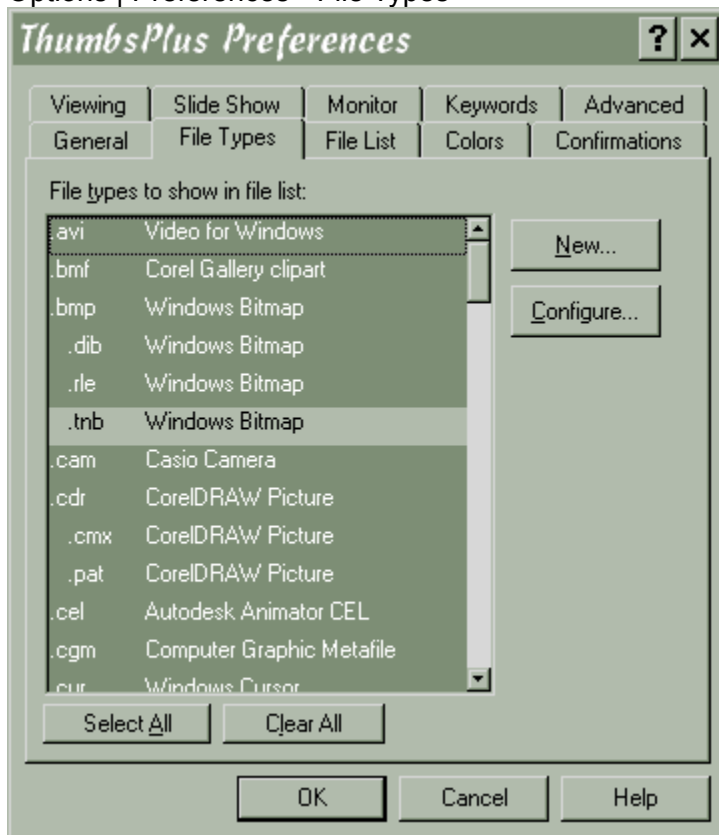


Simply adjust the scroll bar, using either the arrows at the ends or by dragging the central box, until the central gray square is as close as possible to the color of the surrounding pattern. For best results, calibrate in a darkened room.

As some monitors exhibit different characteristics at different display resolutions and color depths, ThumbsCD 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

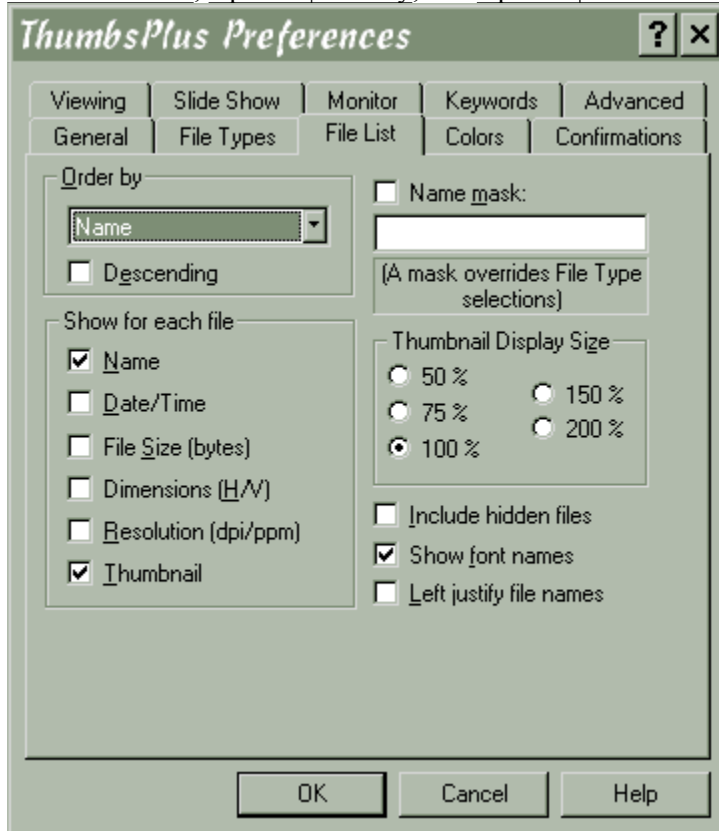


Select All. Select this option to show all configured file types in ThumbsCD. Files that are not recognized will not have thumbnails, but you can move, copy, delete and rename these files.

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

Options | Preferences • File List

This option displays a dialog box from which you can control the display of the file list and thumbnails in ThumbsCD. 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. ThumbsCD 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.

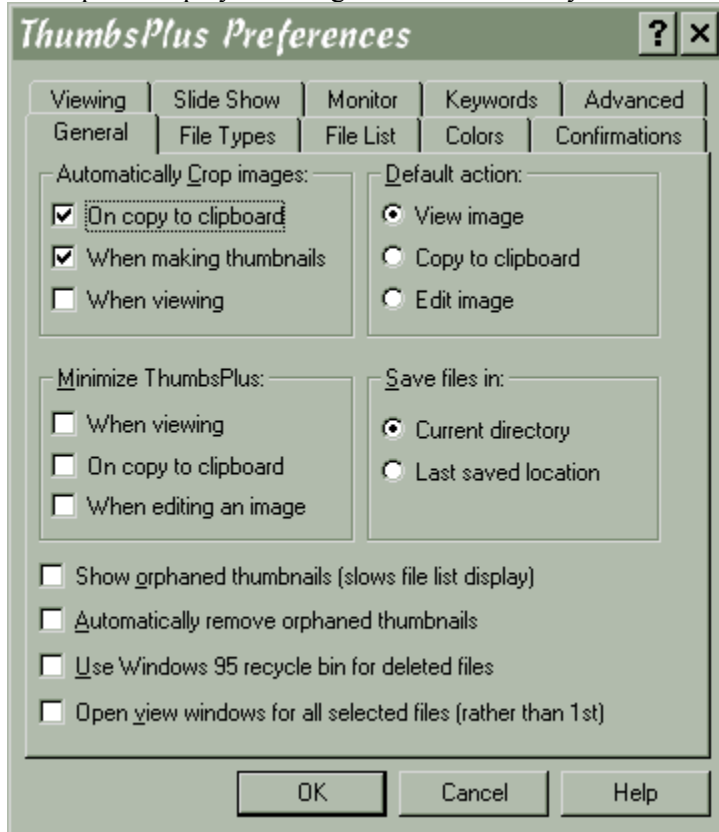
Include hidden files. Causes ThumbsCD to display system and hidden files in addition to normal files.

Show font names. When this is selected, ThumbsCD 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 ThumbsCD



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 ThumbsCD. Selects times when you would like the ThumbsCD 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 ThumbsCD 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 ThumbsCD window, while selecting **Last saved location** will remember each time you save a file, and use that location as the default the next.

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

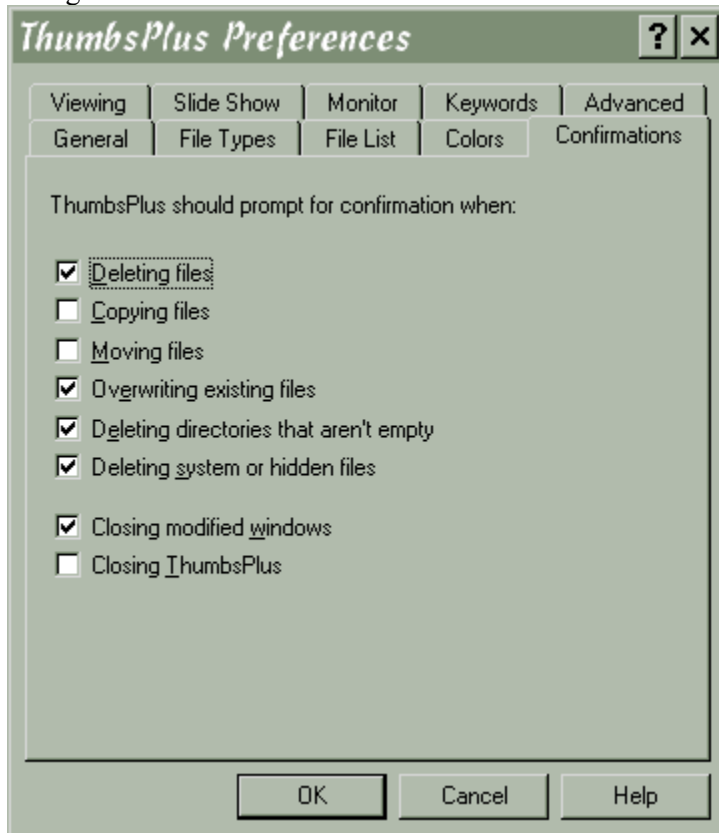
Open view window for all selected files (rather than 1st). This selection determines how many windows ThumbsCD opens when multiple files are selected any you pick Picture | View. If you select this option, then a view window will appear for each selected file; otherwise, only a single view window is created.

Match network drives using share names. When ThumbsCD searches for a match between network volumes stored in the database and those accessible from the system, it can use two methods for determining whether volumes match:

1. *Volume labels.* In this case, if the volume label in the database matches the drive, ThumbsCD assumes a match. This is the default.
1. *Network share name.* In this case, the labels must still match, but the share name is checked also. This prevents problems that occur when multiple shared volumes are mounted with the same volume label (for example, when two different directories are shared separately from the same drive).

Options | Preferences • Confirmations

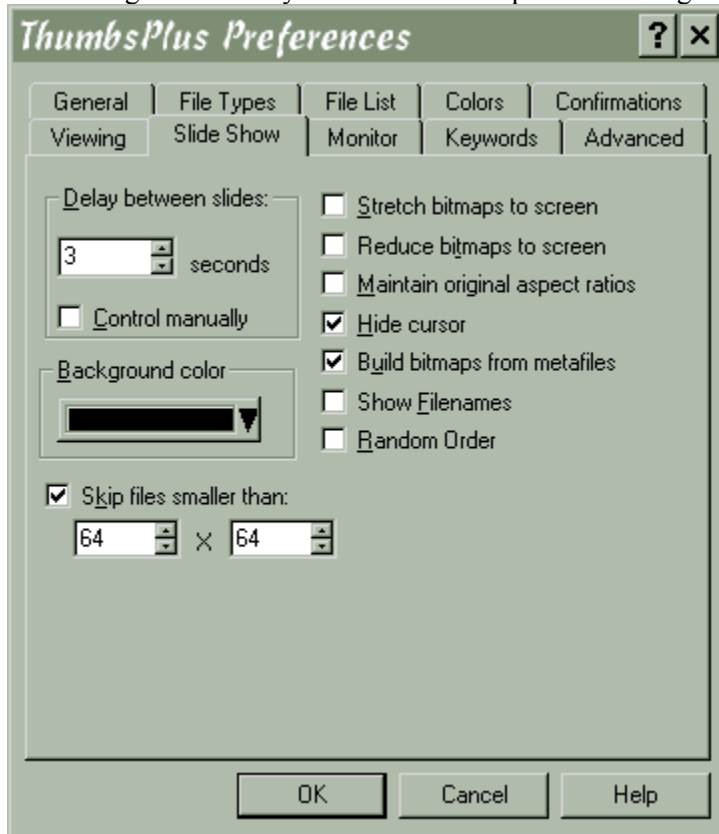
This menu selection allows you to configure which items ThumbsCD prompts for confirmation. For example, if you want ThumbsCD to make sure before deleting files, that option should be checked. The dialog box looks like this:



Each option determines whether or not ThumbsCD 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 ThumbsCD 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, ThumbsCD will not display raster images smaller than the entered size (width and height).

Stretch bitmaps to screen. Causes ThumbsCD 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, ThumbsCD 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.

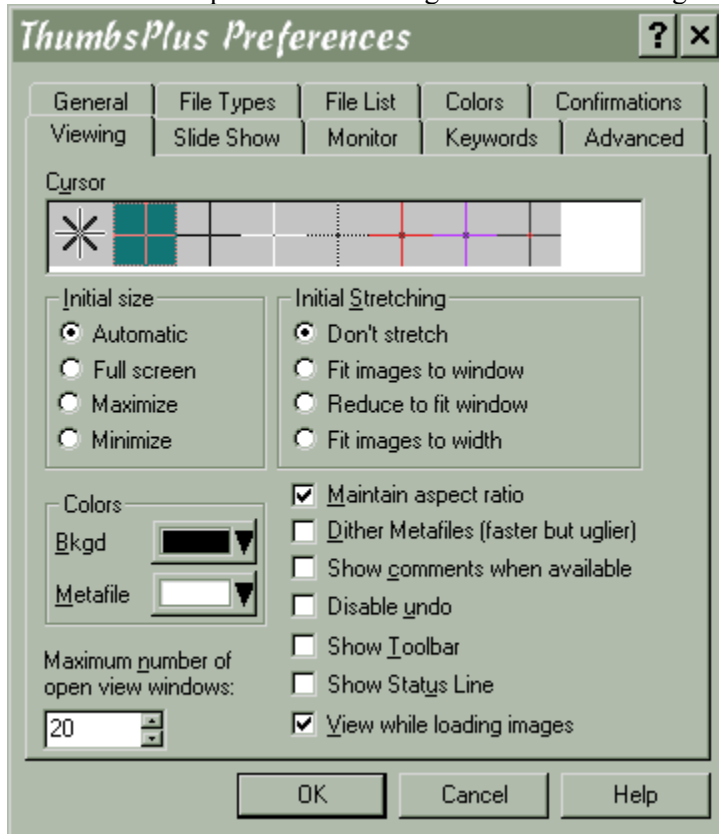
Build bitmaps from metafiles. When this checkbox is selected, ThumbsCD will build an in-memory bitmap from a metafile before displaying it. This eliminates watching the metafile draw.

Show filenames. ThumbsCD 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 ThumbsCD 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 ThumbsCD can manage at one time. Select a number between 2 and 40. Once this limit is reached

(approximately), ThumbsCD 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. ThumbsCD 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 ThumbsCD to automatically display them. The View | Edit Comments window displays automatically whenever you view an image with comments. ThumbsCD can read comment fields from GIF, JPEG and TIFF files.

Disable Undo. If you select this option, ThumbsCD 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, ThumbsCD will automatically create a toolbar for each view window.

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

View while loading images. This option causes ThumbsCD 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.

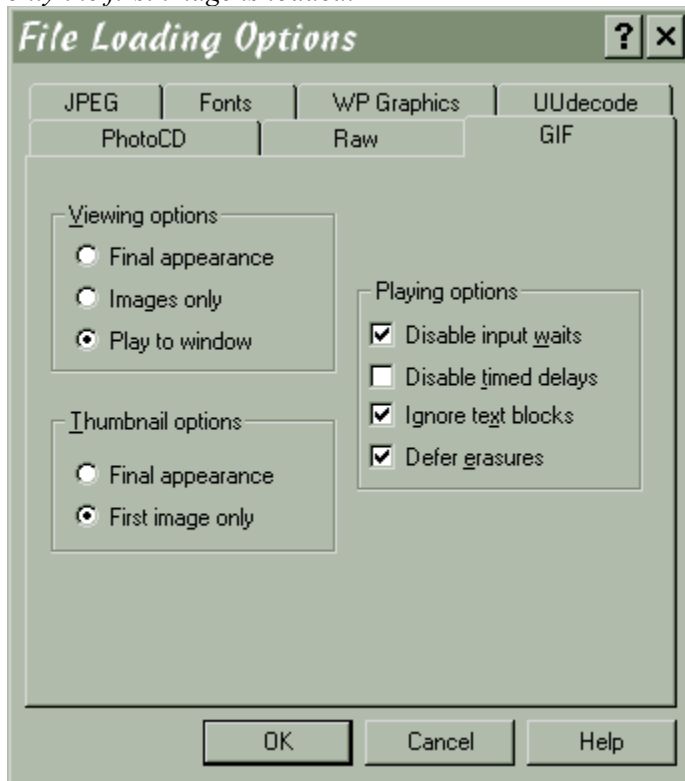
Options | File Loading Ctrl+L

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
- 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 ThumbsCD 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 ThumbsCD 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 ThumbsCD to ignore any displayable text blocks in the GIF file.

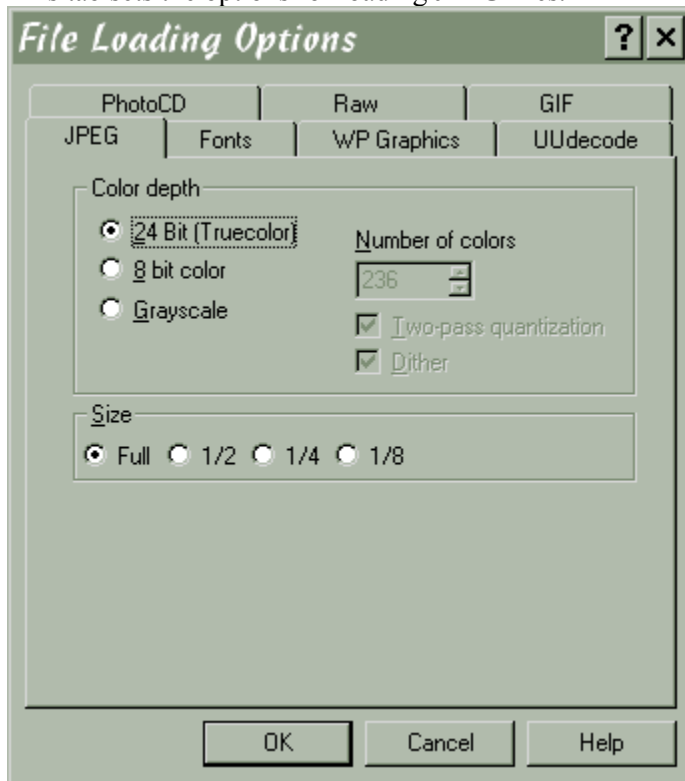
Thumbnail options. Select the disposition of GIF files to use for making thumbnails.

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 • JPEG

This tab sets the options for loading JPEG files.



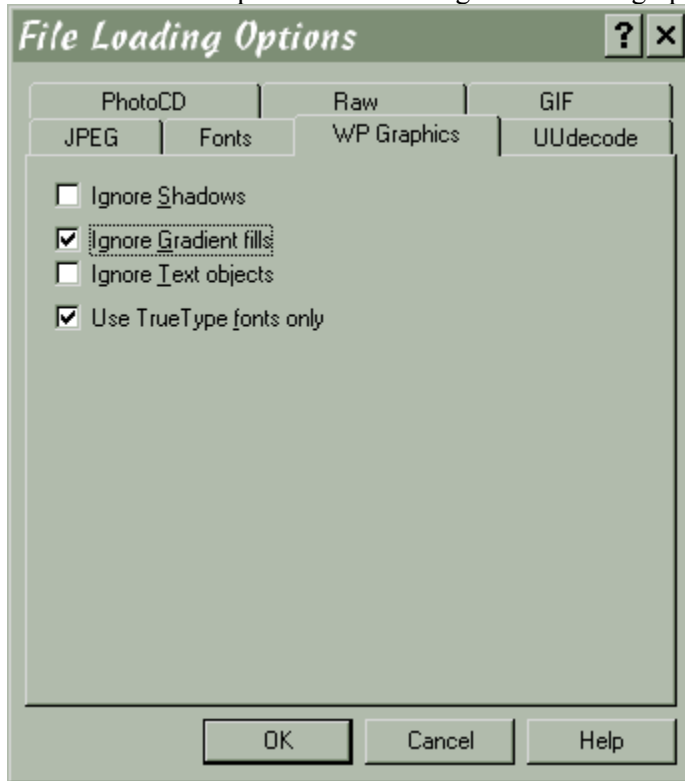
The JPEG library allows you to select how to load JPEG files. JPEG files are always stored as 24-bit (truecolor) images, but the library can automatically dither them to 8-bits for displaying on 256-color devices. This dithering will interfere with editing, however: if you want to edit JPEG files on 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, ThumbsCD will not render object shadows in WPG files. This may speed processing, and may make files easier to edit in other (non-WP) applications.

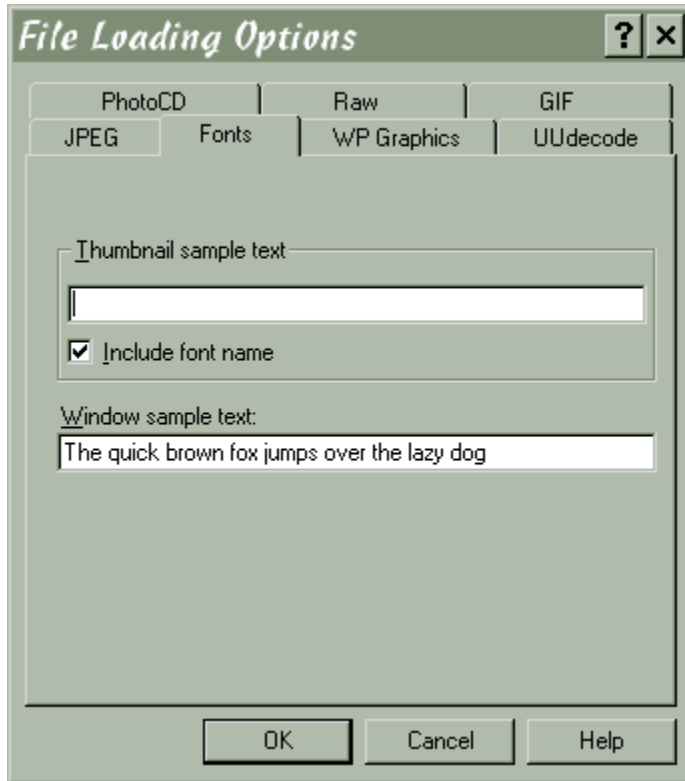
Ignore Gradient fills. If this box is checked, ThumbsCD will not render gradient fills. This will greatly speed processing and reduce the size of resultant metafiles (either copied to the clipboard or saved to disk).

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 ThumbsCD 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

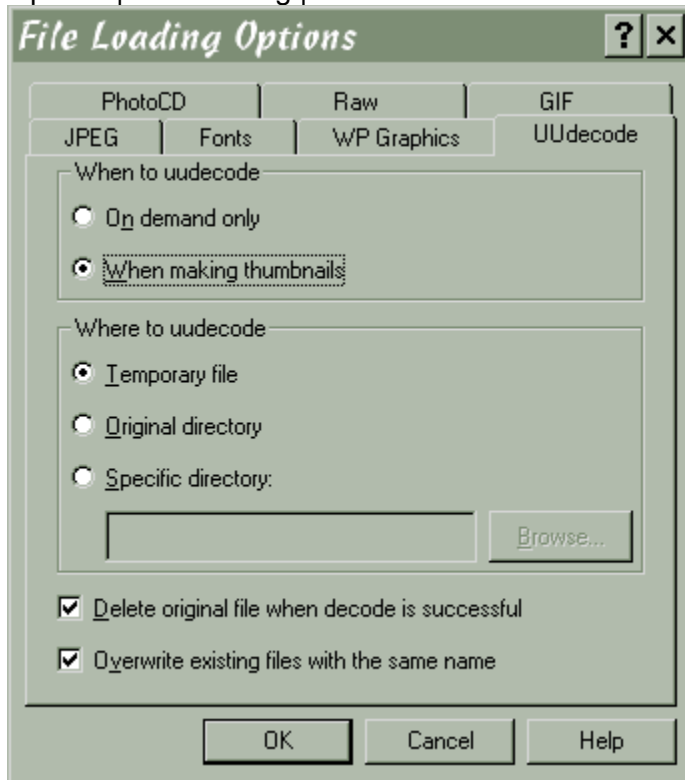
Use this tab to control the actions taken when ThumbsCD thumbnails and views TrueType fonts.



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 ThumbsCD 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. ThumbsCD will uudecode files only when double-clicked to view. This limits the times that ThumbsCD processes the files.

When making thumbnails. ThumbsCD will uudecode when making thumbnails.

Where to uudecode.

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

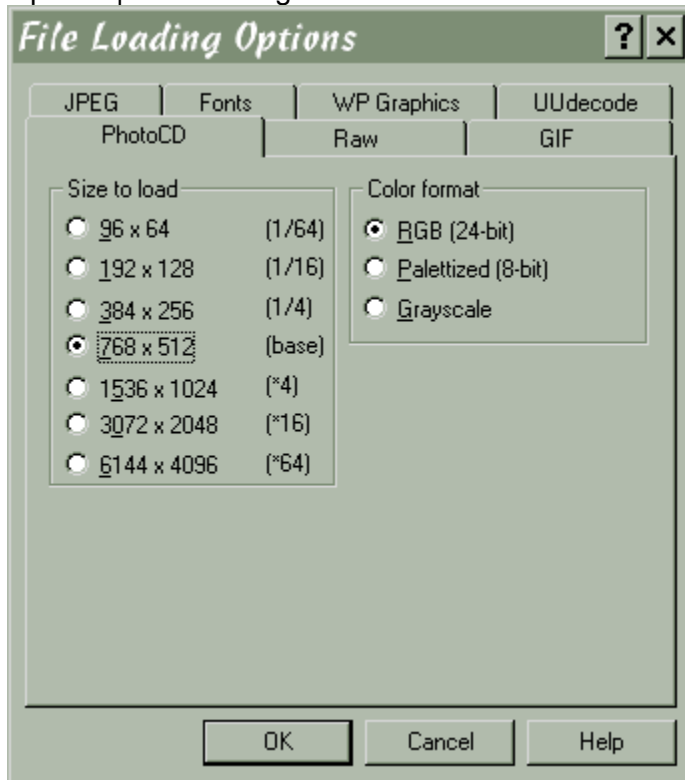
Original directory. ThumbsCD will uudecode into the original directory (where the UUE file resides), using the file name specified in the UUE file.

Specific directory. ThumbsCD 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. ThumbsCD 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. ThumbsCD 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.

Note: You can select the size to load PhotoCD images on-the-fly by holding down the following keys when double-clicking:

Ctrl	Base*4 (1536 x 1024)
Alt	Base / 4 (384 x 256)
Ctrl+Alt	Base (768 x 512)

Options | Customize Toolbar

Use this dialog box to configure the ThumbsCD 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, ThumbsCD 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 | Tree Size and Options Ctrl+Shift+T

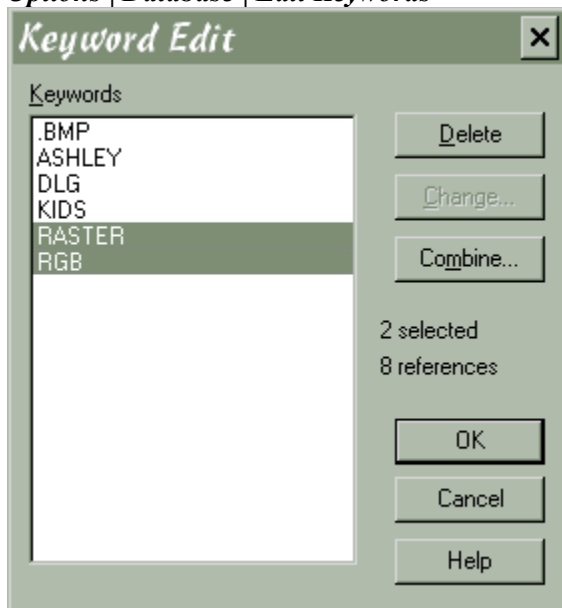
This option saves the current size (width) of the directory tree and the checked options from the Tree menu.

Options | Save for Startup | Window Size & Position

Ctrl+Shift+P

This option saves ThumbsCD's current window position and size. Subsequent runs of ThumbsCD 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 in the 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

Show All

F4

Close All

Shift+F4

Minimize All

Ctrl+F4

Toolbar

Ctrl+Shift+B

Status Line

Ctrl+Shift+L

Refresh File List

F3

Window | Show All F4

Causes ThumbsCD 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, ThumbsCD 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

Contents	F1	Displays the ThumbsCD Help contents
Search for Help on...	Ctrl+F1	Allows you to search the Help file
About ThumbsCD...		Show the ThumbsCD 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 ThumbsCD. You can also save modified files in various formats.

[Keyboard](#)

[Menus](#)

Keyboard - View Window

Menu accelerator keystrokes:

F4	<u>Edit Autocrop</u>
Esc	<u>Edit Cancel Selection</u>
F8	<u>Edit Clone</u>
Ctrl+C	<u>Edit Copy</u>
Ctrl+R	<u>Edit Crop</u>
*	<u>Edit Goto Page</u>
Alt+PageDown	<u>Edit Next Page</u>
Alt+PageUp	<u>Edit Previous Page</u>
Ctrl+E	<u>Edit Select All</u>
/	<u>Edit Split Pages</u>
Ctrl+Z	<u>Edit Undo</u>
N	<u>Edit Edit/Add Comments</u>
Ctrl+P	<u>File Properties</u>
Ctrl+Shift+A	<u>File Save Selection As</u>
Shift+Alt+F4	<u>File Close All</u>
F5	<u>File Copy file</u>
Del	<u>File Delete file</u>
Shift+F5	<u>File Move file</u>
Space	<u>File Next file</u>
Ctrl+F9	<u>File Page Setup</u>
Backspace	<u>File Previous file</u>
F9	<u>File Print</u>
Ctrl+Shift+Z	<u>File Reload</u>
Ctrl+Shift+F5	<u>File Rename file</u>
Ctrl+S	<u>File Save</u>
Ctrl+A	<u>File Save As</u>
F1	Help Menus
Ctrl+F1	Help Search
C	<u>Image Adjust</u>
D	<u>Image Depth</u>
B	<u>Image Convert to Bitmap</u>
U	<u>Image Count Unique Colors</u>

Ctrl+F	<u>Image Filter Last Filter</u>
Shift+F	<u>Image Filter New Filter</u>
F	<u>Image Filter Select Filter</u>
H	<u>Image Turn & Mirror Flip Horizontal</u>
V	<u>Image Turn & Mirror Flip Vertical</u>
M	<u>Image Histogram</u>
I	<u>Image Invert</u>
R	<u>Image Rotate/Resize</u>
W	<u>Image Swap Red & Blue</u>
6	<u>Image Turn & Mirror 90°</u>
2	<u>Image Turn & Mirror 180°</u>
4	<u>Image Turn & Mirror 270°</u>
G	<u>View Assumed Gamma</u>
Ctrl+F6	<u>View Autosize Window</u>
F3	<u>View Full Screen</u>
L	<u>View Gridlines</u>
Shift+F6	<u>View Maintain Aspect Ratio</u>
Ctrl+O	<u>View Options</u>
Ctrl+W	<u>View Stretch to Fit Width</u>
F6	<u>View Stretch to Fit Window</u>
Z	<u>View Zoom In</u>
Shift+Z	<u>View Zoom Out</u>

View Window Menus

File

Edit

Image

View

ThumbsCD!

Help

File Menu

<u>Properties</u>	Ctrl+P
<u>Save</u>	Ctrl+S
<u>Save As...</u>	Ctrl+A
<u>Save Selection As...</u>	Ctrl+Shift+A
<u>Save Palette As...</u>	
<u>Close</u>	Alt+F4
<u>Close All</u>	Shift+Alt+F4
<u>Reload</u>	Shift+Ctrl+Z
<u>Previous file</u>	Backspace
<u>Next file</u>	Space
<u>Copy file...</u>	F5
<u>Move file...</u>	Shift+F5
<u>Rename file...</u>	Ctrl+Shift+F5
<u>Delete file</u>	Del
<u>Print...</u>	F9
<u>Page Setup...</u>	Ctrl+F9

File | 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.

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, ThumbsCD 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. ThumbsCD 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.

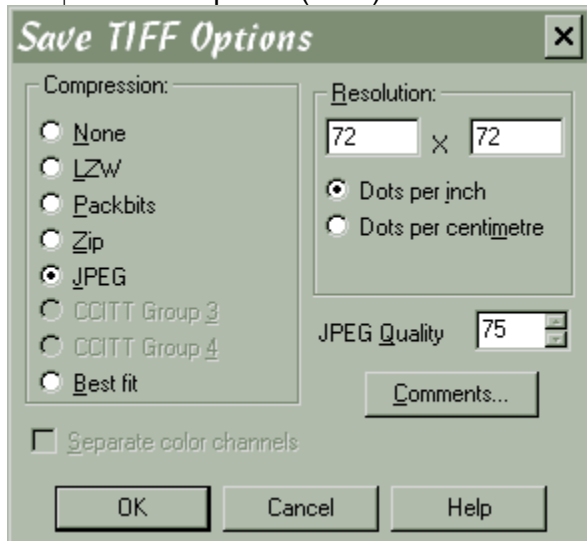
The JPEG Save Options dialog box even shows a preview of the "lossiness" of the compression.

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 ThumbsCD 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.

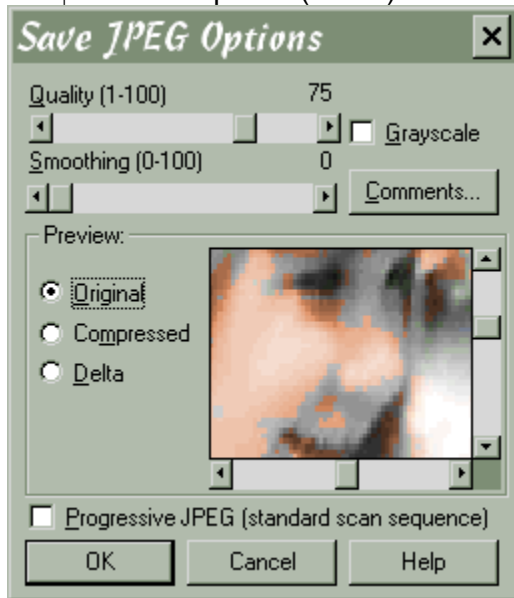
You can specify the **background color and size**, and select a **transparent** color.

You can click anywhere on the preview image to select a color as transparent.

You can also save GIF files as **interlaced**, which allows them to display progressively over slow communications links.

If you select **Minimize Size**, ThumbsCD will automatically reduce the color palette to the minimum size (by combining duplicate palette entries), and create the smallest size of GIF file that it can.

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

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.

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

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

ThumbsCD 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), ThumbsCD 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), ThumbsCD will prompt you to save each one before closing it.

File | Next file Space

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. ThumbsCD will draw a rectangle around the selected area. If the area is large enough, ThumbsCD 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>Clone</u>	F8
<u>Autocrop</u>	F4
<u>Edit Comments...</u>	N
<u>Set Resolution (DPI)...</u>	
<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 | 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 | Edit Comments *N*

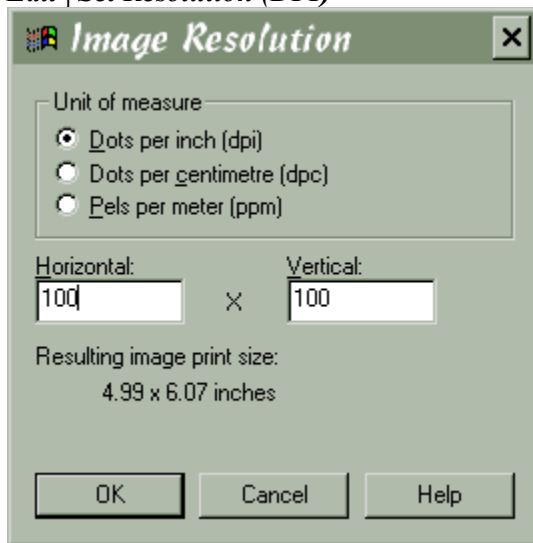
When this option is available, it indicates that the graphic being viewed has comments embedded in it. Select it to view these comments.

If the image does not have comments, the selection reads ***Edit | Add Comments*** instead.

Comments can be saved in the following types of files:

- | | |
|-------------|-----------------------------|
| <u>GIF</u> | - version 89a comment field |
| <u>JPEG</u> | - COM marker field(s) |
| <u>TIFF</u> | - Description tag |

Edit | Set Resolution (DPI)



You can use this option to change the resolution (**Dots per inch, dots per centimetre, or pels per meter**) of the current image. Some page layout and word processing programs use this information to determine how to scale the bitmap when printing and displaying.

The computed physical size when output at the specified DPI is also shown in the dialog box.

Changing this resolution does not affect the quality of the image in any way; it only modifies how some programs display or print the image.

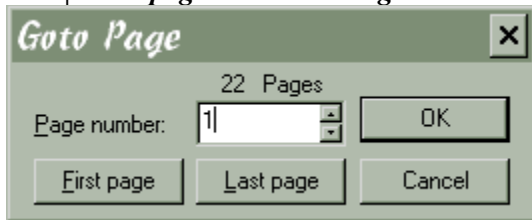
Edit | Next page *Alt+PageDown*

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



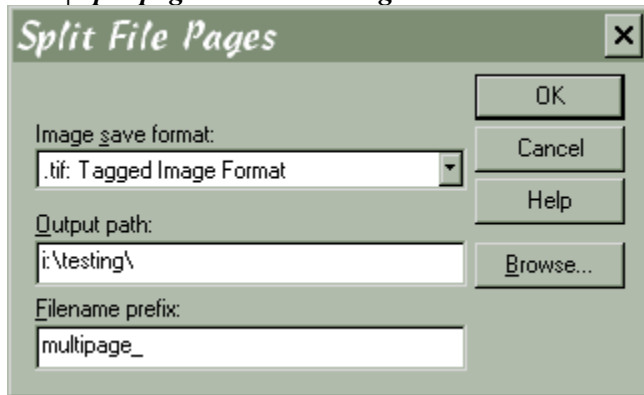
In a multi-image file (TIFF or DCX), this option will allow you to select a specific page number to view. Page numbers start at one.

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

Select Filter...

F

New Filter...

Shift+F

Apply Last Filter

Ctrl+F

Histogram...

M

Adjust...

C

Depth...

D

Rotate & Resize

R

Swap Red & Blue

W

Invert

I

Count Unique Colors

U

Turn & Mirror

90°

Ctrl+KeyPad 6

180°

Ctrl+KeyPad 2

270°

Ctrl+KeyPad 4

Flip Horizontal

H

Flip Vertical

V

Convert to Bitmap

B

Extract Bitmap

Remove Background

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, ThumbsCD will ask if you want an estimate instead.

Image | Filter | Select Filter (R) F



This dialog box allows you to select a filter for processing the current image.

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.

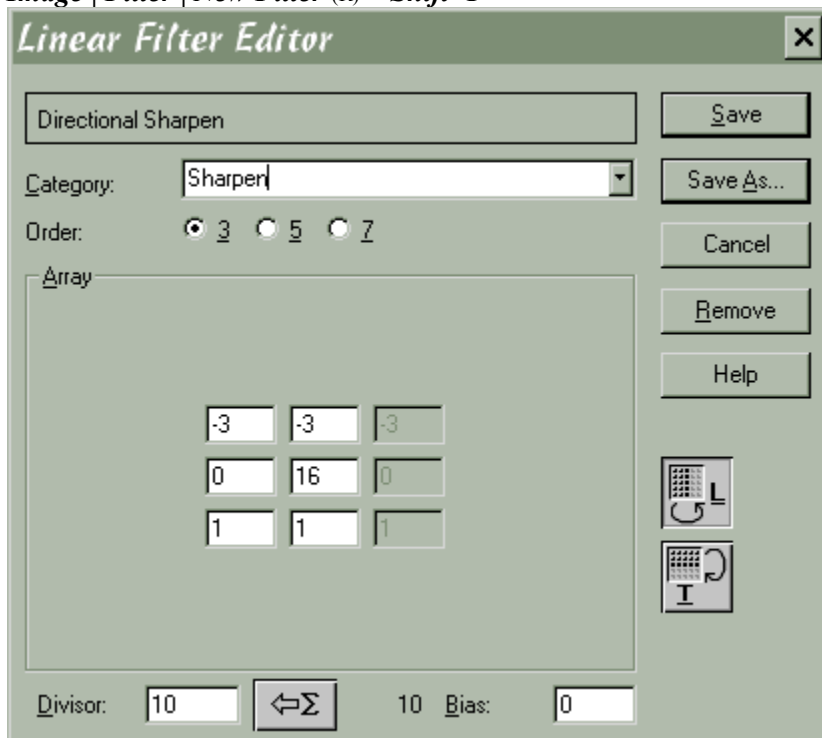
Apply to. Select the channel(s) to apply the filter to. Intensity applies the effect only to the intensity (brightness) of each pixel -- the hue is maintained. All channels processes all three channels (red, green and blue) separately. And, for some filter types, you may select only a single color channel.

Orientation. For linear filters (those defined by a *convolution mask*) which are not symmetrical, ThumbsCD 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 ThumbsCD. 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 ThumbsCD.

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

Order. ThumbsCD 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  button will place this sum in the Divisor field.

Bias. This value is added to the result of (Array x pixels) / 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.

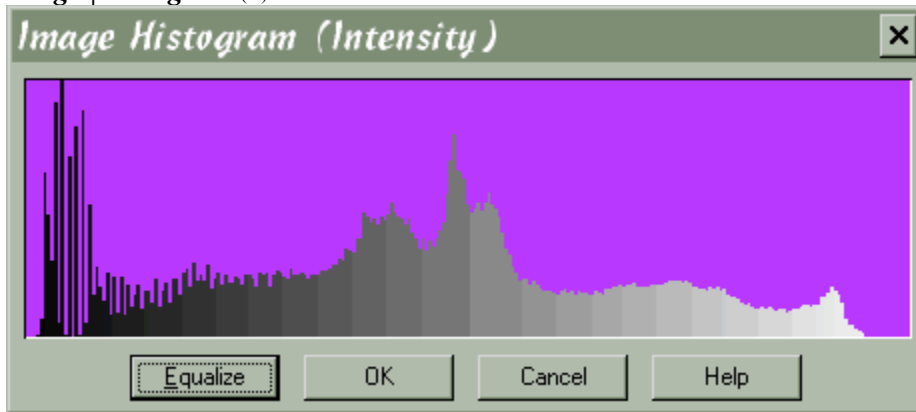
T. Click to force the array to be top-bottom symmetrical. All values in the top of the array will be repeated automatically on the bottom (and if you change a value on the top, it will automatically change on the bottom). This button is on by default if you edit a filter that is top-bottom symmetrical.

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

Image | Filter | Last Filter (R) ***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. ThumbsCD 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 | Turn & Mirror | 90°,180°,270° 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 by using Rotate/Resize with an angle of 90, 180 or 270, and specifying **Bounding Box** as the **Aspect Fit**.

Image | Turn & Mirror | Flip Vertical V

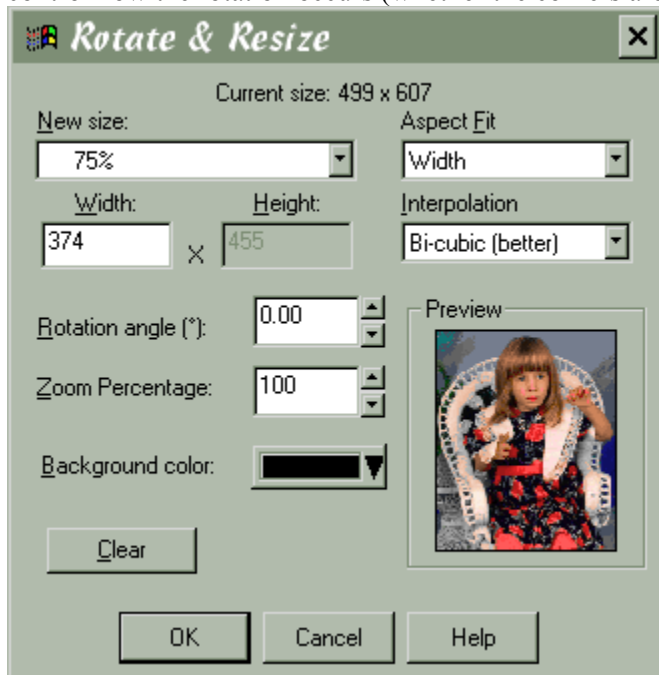
This option reverses the image from top to bottom. Note that this operation is not saved for undo, as selecting it again undoes it.

Image | Turn & Mirror | 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.

Width, Height. When **New Size** is set to **Custom**, these values may be entered either as exact pixel measurements, or as percentages of the original.

Background color. When rotating or zooming, or resizing to a size that does not match the original aspect ratio, a background is added. Here you may select the color of that background.

Aspect Fit. This selection sets how ThumbsCD 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.

Interpolation. Use this drop-down list to select the type of interpolation (resampling) which ThumbsCD will do when resizing or rotating:

Nearest Neighbor (no interpolation.) This is the fastest, but the least pleasing. Usually results in significant "jaggies."

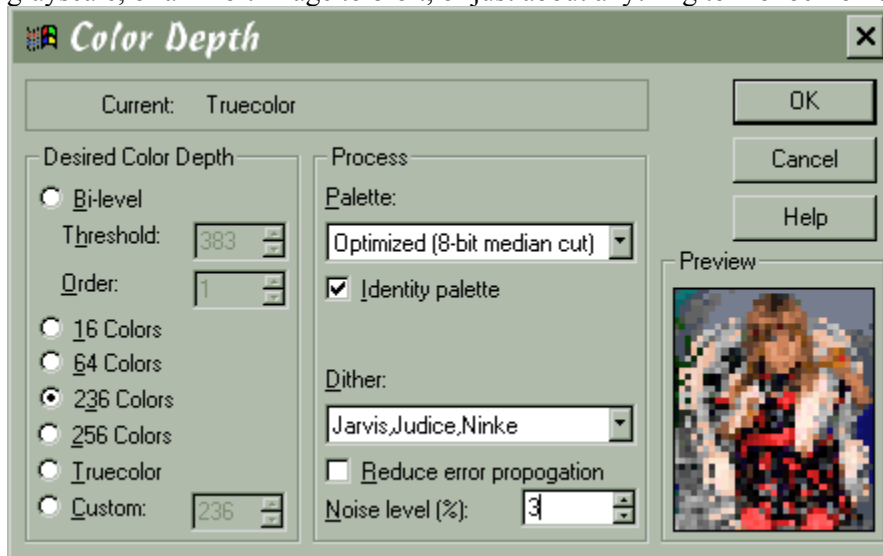
Bi-Linear. Computes weighted average of four pixels, based on computed position from the original source. This is slower but better than Nearest Neighbor, and considerably faster than bi-cubic.

Bi-Cubic. Computes cubic convolution of sixteen pixels, based on computed position from the original source. This produces the most accurate results, but is significantly slower than bi-linear interpolation.

If you rotate or resize a 256 (or fewer) color image and select interpolation, ThumbsCD 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, ThumbsCD will promote any grayscale image less than 256 levels to an 8-bit grayscale image.

Image | 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.

Order. When using an ordered dithering pattern for converting to bi-level, this selects the size of the box used. You can specify 1 through 8.

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.

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

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

Light Windows Color. Uses 16 standard Windows colors as implemented by some display drivers (the darker colors are lighter than in the standard palette).

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 ThumbsCD 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 ThumbsCD 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 ThumbsCD 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.

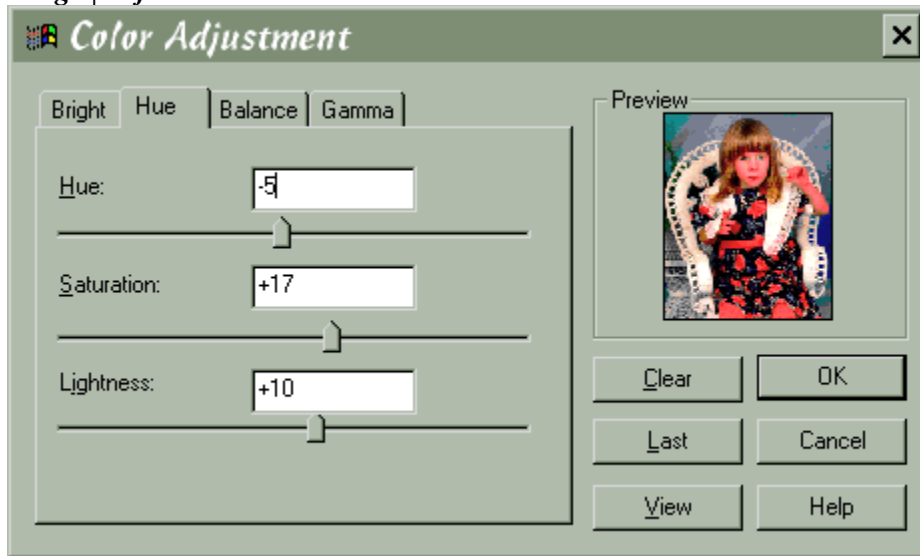
Stucki. A fairly complex error diffusion dither. Slower than Floyd-Steinberg or Burkes, but usually the nicest results, especially for truecolor to 256-color conversions.

Jarvis, Judice, Ninke. Another fairly complex error diffusion dither with a somewhat different appearance from Stucki.

Noise Level. ThumbsCD can randomize each pixel by a small amount to (sometimes) improve the appearance. Select a value here between 0 (no noise) and 50 (lots of noise). This is particularly useful in

getting rid of patterns produced in solid areas by the error diffusion dithers.

Image | Adjust C



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

Brightness tab:

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.

Hue tab:

Hue. This controls the overall hue (color) of the image.

Saturation. This controls the amount of color saturation. Lower saturation makes the image grayer.

Lightness. This is the same as **Brightness**.

Gamma tab:

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 ThumbsCD 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.

Balance tab:

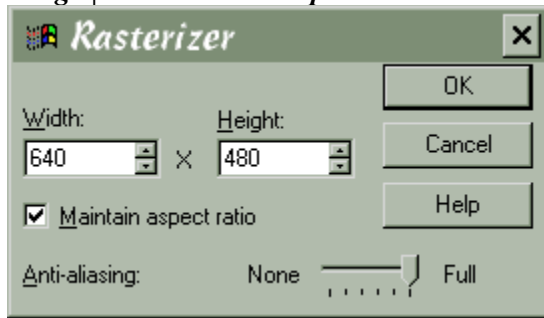
Red, Green, Blue. These controls modify the amount of Red, Green and Blue in the image. They work similarly to the Brightness control, but individually on each color channel.

Clear. Sets all controls to zero.

Last. Restores the last settings used to adjust an image so they can be used on the current image.

View. This button repaints the image with the selected changes.

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.

Maintain aspect ratio. Selects the amount of anti-aliasing to perform when rasterizing. Anti-aliasing reduces jaggies and makes the resulting image look more accurate.

You can select from four levels; the lowest provides no anti-aliasing, and the highest provides the best (but also the slowest).

Image | Extract Bitmap

This selection

Image | Remove Background

This selection (available only for metafiles) removes any rectangles encompassing the entire metafile. This usually removes and overall background color from a metafile, making it transparent.

This option is not used for raster images; however, you can save GIF files with transparency.

View Menu

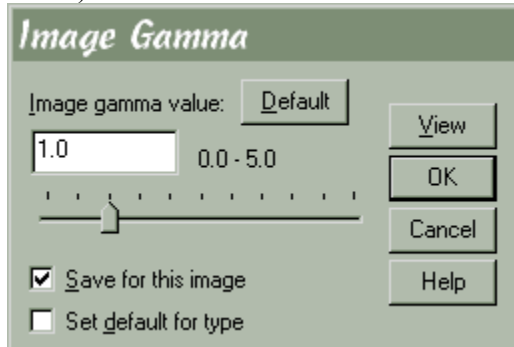
<u>Full Screen</u>	F3
<u>Autosize Window</u>	Ctrl+F6
<u>Maintain Aspect Ratio</u>	Shift+F6
<u>Assumed Gamma...</u>	G
<u>Zoom</u>	
<u>Zoom In</u>	Z
<u>Zoom Out</u>	Shift+Z
<u>Zoom to Fit All</u>	F6
<u>Zoom to Fit Width</u>	Ctrl+W
<u>Gridlines</u>	L
<u>Customize Toolbar</u>	Ctrl+T
<u>Toolbar</u>	T
<u>Status 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 for this Image** to store the selected gamma value in the database for this image, so that whenever it is loaded it displays using this gamma.

Check **Set Default for Type** to assume the selected value as the default for any 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 ThumbsCD 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 | 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 | Customize Toolbar

Use this dialog box to configure the ThumbsCD 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

Contents	F1	Displays the ThumbsCD Help contents
Search for Help on...	Ctrl+F1	Allows you to search the Help file
About ThumbsCD...		Show the ThumbsCD About box

ThumbsCD Menu

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

Help Menu

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

Additional Information

[Hints and Tips](#)

[Windows Display Drivers](#)

Hints and Tips

File Manager Drag & Drop. ThumbsCD will act as a drag-and-drop client from File Manager. Simply drag file names from File Manager to the ThumbsCD window (or icon). ThumbsCD 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* ThumbsCD 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 ThumbsCD steals the other system colors to more accurately display the image.

Internal Drag & Drop. Although ThumbsCD 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.

Windows Display Drivers

ThumbsCD 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; ThumbsCD 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.

	256 (8-bit)	32768/65536 (Hicolor)	16.7 Million (Truecolor)
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.

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T

thumbs+CD Error Messages

For errors reported directly by ThumbsCD (the message number is displayed as part of the message), you can press F1 from the message box to go directly to the help topic for that message.

Select the message number from the list below. You may also press F1 when any message is displayed to view the help topic for that message. If the error is in the "Errors Encountered" area of the progress dialog box, you can select the error, then click on Help or press F1 for more information.

<u>5001</u>	<u>5003</u>	<u>5004</u>	<u>5006</u>	<u>5007</u>	<u>5008</u>	<u>5010</u>	<u>5011</u>	<u>5012</u>	<u>5013</u>	<u>5014</u>
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[5001] Out of Memory

ThumbsCD was unable to allocate the amount of memory required to do the function you selected. Because ThumbsCD 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.
1. Close any ThumbsCD view windows which are open.
1. 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

ThumbsCD 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.
1. The disk is read-only or write-protected.
1. The disk is full.
1. The network drive is no longer available.
1. The file is locked by another application on your system, or by another system on the network.
1. You don't have sufficient permission to create files in the directory on the network drive.
1. 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>**

ThumbsCD 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

ThumbsCD 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.
1. 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.
1. A sector or sectors on the physical disk drive have gone bad. A SCANDISK with surface check may find the problem.
1. 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.
1. A network drive has become unavailable.
1. Network permissions do not permit writing to the file.
1. The physical disk has bad sectors. A SCANDISK with surface test is recommended.
1. The allocation tables for the disk are invalid. A SCANDISK is recommended.
1. On a compressed partition, the operating system may not have reported the actual amount of free space, so ThumbsCD sometimes cannot tell before writing that the disk would fill up. (When ThumbsCD can tell, it reports error [\[5008\]](#)).
1. ThumbsCD 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

ThumbsCD 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 ThumbsCD 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 ThumbsCD are stored in the THUMBS.EXE file as resources. ThumbsCD 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>

ThumbsCD could not create the file. Several explanations are likely:

1. The file name, directory path or drive is invalid.
1. The specified disk is read-only or unavailable.
1. The network drive is unavailable.
1. You don't have sufficient permission to create files on the network drive.
1. The disk is completely full.

[5013] Error reading file

This error appears when ThumbsCD 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)
1. Invalid disk allocation information (run SCANDISK or CHKDSK to verify the integrity of your file and directory information on the disk).
1. A bad disk sector. Run SCANDISK with a surface test to see if there are bad (unreadable) sectors on the disk.
1. Disk drive failure.
1. A network drive becoming unavailable.

[5014] Format error in file

ThumbsCD reports this error when it cannot process the contents of the file because they do not match published specifications, or because ThumbsCD does not support the particular "flavor" of file. Sometimes ThumbsCD will report this error for newer versions of a file type, as it no longer matches earlier specifications.

[5015] Unsupported file format

ThumbsCD 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 ThumbsCD (for example, YCbCr TIFF files are not currently supported), or because a field in the header which ThumbsCD depends on to decode the file has an invalid or unrecognized value.

[5016] Error accessing clipboard

When ThumbsCD 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>

ThumbsCD 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 ThumbsCD 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!

ThumbsCD 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. ThumbsCD 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>'

ThumbsCD 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.
1. The file is on a network drive and you do not have sufficient permission to remove it.
1. The file is open by another application on your system, or on another system on the network.

[5024] Unrecognized file

ThumbsCD could not identify the contents of the file. Note that ThumbsCD uses the actual file contents rather than the file extension to make positive identification. The file may be in a format that ThumbsCD does not support, or may be corrupted, or may be a more recent revision of the file format.

[5025] Insufficient memory to load file

ThumbsCD 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 ThumbsCD?

This question verifies that you want to exit ThumbsCD. 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 to convert the file to 8-bit indexed color to save it as a GIF file.

[5030] Cannot execute command '<command>'

ThumbsCD 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>'

ThumbsCD 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.

ThumbsCD could not add the font resource to the system. Possible problems include:

1. Insufficient network privilege to write the Windows or Windows System directory.
1. Insufficient memory or system resources. Try exiting Windows and restarting.

[5037] Could not match font in file '<filename>'

ThumbsCD 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.
1. ThumbsCD 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. ThumbsCD 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>'

ThumbsCD 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?

ThumbsCD saw that the file you specified was already there. Click YES to replace it, or NO to leave it alone.

[5042] Cannot open

ThumbsCD could not open the specified file. Some probable causes are:

1. The file no longer exists.
1. The network drive is no longer available.
1. The file is locked by another application on your system, or by another system on the network.
1. The file information on disk is invalid; run SCANDISK or CHKDSK to validate file and directory allocations.

[5043] Cannot create

ThumbsCD 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.
1. The disk is read-only or write-protected.
1. The disk is full.
1. The network drive is no longer available.
1. The file is locked by another application on your system, or by another system on the network.
1. You don't have sufficient permission to create files in the directory on the network drive.
1. The file information on disk is invalid; run SCANDISK or CHKDSK to validate file and directory allocations.

[5044] Error writing file

ThumbsCD 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, ThumbsCD was unable to delete the original, so the file was copied instead. Possible reasons that ThumbsCD 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 ThumbsCD 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 ThumbsCD 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 ThumbsCD 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).
1. Too large (there's no space left to print after accounting for the margins).

[5052] ThumbsCD cannot access the printer.

ThumbsCD 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 ThumbsCD 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. ThumbsCD is most likely corrupted and should be reloaded.

ThumbsCD 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.
1. Memory or resources are very low, so Windows should be restarted.

[5057] Unable to rename '<filename>' to '<new name>'

ThumbsCD could not rename the file. Most probable causes are:

1. The file is on a read-only (CD-ROM) or write-protected disk.
1. The file is on a network drive and you do not have sufficient permission to rename it.
1. The file is open by another application on your system, or on another system on the network.

[5058] Corrupted file

ThumbsCD 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 ThumbsCD 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

ThumbsCD 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 ThumbsCD 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. .

[5064] Unable to write disk label to drive <drive>

ThumbsCD could not write the disk label. Note that ThumbsCD cannot label:

1. CD-ROM drives.
1. Write-protected diskettes.
1. Network volumes

[5065] Cannot access disk <drive>

ThumbsCD 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), ThumbsCD 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 ThumbsCD, 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)

ThumbsCD 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>

ThumbsCD 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>

ThumbsCD 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>

ThumbsCD 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

ThumbsCD 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

ThumbsCD 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

ThumbsCD could not link with the server application to process the file. Ensure that:

1. The server application is loaded on the machine.
1. It has not been moved to a different directory or disk (unless you also updated the Windows Registration Database).
1. 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 ThumbsCD 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 ThumbsCD -- 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

ThumbsCD 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. ThumbsCD 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?

ThumbsCD 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 ThumbsCD 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

ThumbsCD 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

ThumbsCD 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.

ThumbsCD only processes the preview image or metafile. No attempt is made to interpret the PostScript™ text.

[5093] Invalid color depth (*number*) requested

ThumbsCD 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*'

ThumbsCD 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

ThumbsCD 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

ThumbsCD 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>

ThumbsCD 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

ThumbsCD 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, ThumbsCD 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.
1. The Windows system directory (usually \WINDOWS\SYSTEM) is shared and not writable.
1. The disk containing the Windows system directory is full.
1. The font resource already exists because an application removed the font without removing the .FOT file. You can delete the file manually.
1. Some other disk error or problem.

[5102] Could not locate font in WIN.INI for removal

When you select to remove a font, ThumbsCD 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

ThumbsCD 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

ThumbsCD 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

ThumbsCD 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.
1. A bad sector on the disk. Use SCANDISK with surface test to check.
1. A network drive is no longer available.

[5108] Can't convert <type> files to <type>

ThumbsCD 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, ThumbsCD 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. ThumbsCD converts any other format to the BMP type (a temporary file) before installing as wallpaper. Some file types that ThumbsCD 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

ThumbsCD 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 ThumbsCD.

[5113] Don't know how to print *<class>* files

ThumbsCD 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:

- | | |
|---------------------------------------|---|
| <i>Print job aborted</i> | The print job was aborted, probably by Print Manager or a network print server. |
| <i>Insufficient disk space</i> | The disk used for temporary files is full. |
| <i>Insufficient memory</i> | There is not enough memory in the system to print the file. See the tips for error message [5001] 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 ThumbsCD doesn't have the capability to print the type, error [[5113](#)] is issued instead.

[5116] Unable to create or open temporary file for details

ThumbsCD 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.

ThumbsCD writes this file in the directory specified by the TEMP environment variable.

[5117] Cannot write to temporary details file

ThumbsCD could not write detail information to the temporary file. See [[5116](#)] for more information.

[5118] Error reading temporary details file

ThumbsCD could not read detail information from the temporary file. See [[5116](#)] for more information.

[5119] File details truncated

ThumbsCD 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; ThumbsCD 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, ThumbsCD 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, ThumbsCD 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 ThumbsCD will attempt OLE access.

[5127] System resource levels are low. You may wish to exit some application(s) or restart Windows.

ThumbsCD 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, ThumbsCD 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>*)

ThumbsCD 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, ThumbsCD 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

ThumbsCD 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>

ThumbsCD 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 ThumbsCD 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 ThumbsCD.

[5137] Only one animation may be active at a time

ThumbsCD 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, ThumbsCD 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

ThumbsCD 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.
ThumbsCD requires 1, 4, 8 or 24 bits per pixel.**

ThumbsCD 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 ThumbsCD can handle.

[5145] Unable to load palette from data source

The data source failed trying to send the palette (color map) data to ThumbsCD for an indexed image.

[5146] Unsupported color mode. Please select bi-level, grayscale, RGB, or RGB palette.

ThumbsCD 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

ThumbsCD 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

ThumbsCD 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 ThumbsCD; 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).

ThumbsCD 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

ThumbsCD cannot allocate enough memory for the filter buffer. See error [[5001](#)] for information on increasing the amount of memory available to ThumbsCD.

[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 ThumbsCD .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>

ThumbsCD 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>

ThumbsCD'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 ThumbsCD.

[5162] <filename>: file '<filename>' already exists; not overwritten

The udecoded destination file already exists, so ThumbsCD did not overwrite it. You can modify this behavior using Options - File Loading - UUdecode.

**[5163] <filename>: Unable to create uudecode output file
'<filename>'**

ThumbsCD 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, ThumbsCD 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

ThumbsCD 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>'**

ThumbsCD 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>'**

ThumbsCD 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>'**

ThumbsCD 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

ThumbsCD 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>'

ThumbsCD 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 ThumbsCD 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, ThumbsCD 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

ThumbsCD 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>'

ThumbsCD 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

ThumbsCD 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, ThumbsCD could not locate the name using ATM. The font may be corrupted or invalid.

[5181] <filename>: Unable to load ATM font

ThumbsCD could not install the font. The font file may be corrupted or invalid.

[5182] Unable to remove directory '<directory>'

ThumbsCD 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 ThumbsCD 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 ThumbsCD.

[5188] Insufficient memory for buffer

ThumbsCD 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 ThumbsCD to reduce it automatically?**

GIF files can only contain 256 colors, and the current image has more. Select "Yes" for ThumbsCD to automatically reduce the color depth of the image before saving. ThumbsCD 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, ThumbsCD uses another compression method instead (generally LZW).

[5191] <filename>: Unsupported TIFF color mode

ThumbsCD 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] ThumbsCD cannot be run from a network after the trial period has expired.

You must purchase a site or concurrent use license to run ThumbsCD on a network.

[5193] Warning: the ThumbsCD 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 ThumbsCD on a network.

[5194] No network license installed. Please run ThumbsCD 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, ThumbsCD 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, ThumbsCD 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

ThumbsCD 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. ThumbsCD trapped the error and can continue processing; however, some resources or memory may have been lost until you exit and restart ThumbsCD

[5209] Note: file <filename> overwritten with identical file <filename> (which was deleted)

You selected "Yes to same" for confirmation of moving files, and ThumbsCD 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 ThumbsCD 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, ThumbsCD 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 ThumbsCD 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 ThumbsCD 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 ThumbsCD with a 256 color (8-bit), Hicolor (15-16 bit) or Truecolor (32 bit) display driver.

ThumbsCD 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.

ThumbsCD 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.

ThumbsCD 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.

No Help Available for This Error

Unfortunately, the error you have requested help for does not have an entry in this help file. Often newer error messages take some time to be incorporated into the Help file.

Please contact the producer of the CD-ROM if the message was not clear or not useful.

ThumbsCD Glossary



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Drag and Drop

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 ThumbsCD, 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 ThumbsCD, 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 ThumbsCD, this may be accomplished using the Edit - Autocrop menu option.

Color Depth

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>	RGBA
48-bit	<u>Truecolor</u>	<u>RGB</u>

Crop

Cropping an image involves selecting an area and removing the rest. ThumbsCD can crop manually (where you select the crop area) from the View Window; ThumbsCD can also autocrop, removing unnecessary space from around an image. You can control when ThumbsCD 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 ThumbsCD - *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 ThumbsCD: 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, ThumbsCD will not gamma correct the image for display.

Desktop

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 ThumbsCD 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 ThumbsCD, 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. ThumbsCD 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 ThumbsCD.

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
Magenta
Yellow
black

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 ThumbsCD.

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).

ThumbsCD 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 (ThumbsCD 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 ThumbsCD is THUMBSCD.INI. Profile files are generally stored in the Windows directory to be unique for each user in a network environment.

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.

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 ThumbsCD 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 ThumbsCD 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 ThumbsCD, 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 ThumbsCD will automatically re-use deleted space for new thumbnails, so compacting (purging) is not required nearly as often.

Icon

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. ThumbsCD 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

Interpolation is a process of computing intervening values from given values (generally by averaging). For example, when ThumbsCD changes the size of a bitmap, it can interpolate and compute the extra pixels as weighted averages (based on closeness) of neighboring pixels.

Rasterize

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

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

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

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.

ThumbsCD converts the colors to RGB based on default values for monitor settings.

