ThumbsPlus Version 3.0b Release Notes

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Database Changes

So that we could correct problems with volume matching, duplicate labels, and duplicate serial numbers, a small change was required to the database format in version 3.0b; the format for storing *Volume* information changed slightly. For the most part, this change will be transparent: ThumbsPlus converts the Volume records the first time 3.0b opens an earlier (3.0a or 3.0a) database. However, if there are problems, you may need to be aware that:

1. Although version 3.0a can still open the database after it is converted by 3.0b, it will use the older volume information. After a database is converted to 3.0b format, thumbnails made by 3.0a to new volumes will not be visible to 3.0b (and vice versa).

2. If a database is compacted (using the ThumbsPlus Database Utilities, *TDButil*), the older volume information will be removed. You'll no longer be able to open the database with 3.0a.

3. The conversion of the Volume records is very fast; except in the case of hundreds or thousands of volumes, it should complete within a second or two.

4. The first time you open a 3.0 database with 3.0b, you'll need to be sure that you have write access and exclusive access to the database. It should not be open on any other systems, or by ThumbsPlus version 3.0a.

Because of these issues, we recommend that you do not use 3.0a after installing 3.0b, and that you update all network clients to 3.0b. For network installations, be sure to run 3.0b on a client that can write to the database before running it on systems that are set up only to read it.

New Features and Enhancements

ThumbsPlus 3.0b Release Notes

Although 3.0b is primarily a maintenance release, a few minor enhancements made their way into the release. Here is a summary of those enhancements. Any major changes are covered more fully later on in this document. New features that only affect the registered release (3.0b-R) are noted with the symbol (R).

MIDI music support. ThumbsPlus can now play MIDI (.MID) files.

The full file name displays on the context menu. Right-click a file to see its full name at the top of the context menu.

Video playback (AVI, MPG, MOV) configuration. ThumbsPlus provides a "configure" button on the Video Controls to access the appropriate MCI driver configuration dialog box.

ThumbsPlus shows files that have changed since they were last thumbnailed. This feature (a red dot in the upper right-hand corner of the thumbnail) was in 3.0a, but was not documented.

Improved Cancel response when processing files. Versions 3.0 and 3.0a would sometimes take quite a while to cancel a multiple-file process.

Improved file list display. ThumbsPlus shows the file list faster, and with less unnecessary refreshing

Uppercase directory names are shown in mixed-case as in Explorer.

When renaming a file, ThumbsPlus now shows the existing file name as the default.

Remembers the last "Save As" file type. ThumbsPlus remembers the last "Save As" file type and uses it the next time you select Save As.

Scanned and pasted images now receive unique names. For example, Clip0001, Scan0001 rather than "scanned.bmp".

You can skip the GIF, TIFF or JPEG Save Options. Pressing SHIFT while OK'ing (by mouse or ENTER) the *Save As* dialog will skip the GIF, JPEG or TIFF Options dialog and use the current defaults

The default background for contact sheets is a more pleasing color.

Additional raw types supported (Including 16-bit grayscale, 24-bit RGB or BGR, 32-bit RGB or BGR). And, you can specify unprocessed head and tail sizes. This allows many medical images to be imported (i.e., Nanoscope). See page 4 for details on setting up raw formats.

Problems Corrected

Here are the bugs we fixed for this release. Most of these were found by observant users. Be sure to let us know if you find problems – we'll do our best to correct them in the next release. Corrections that only affect the registered release (3.0b-R) are noted with the symbol .

Windows 3.1/Win32s

- Edit - Select All didn't work.
- Main Toolbar was not updating correctly.
- Window adornment bitmaps (system menu, minimize, maximize, scroll bars) were lost when resources ran low (due to cursor leak during ZIP file processing).
- Contact sheets reported "out of memory."

- Catalog printing did not work.
- Color cursors were ignored (rather than converted to monochrome cursors) by some display drivers.

Faults (GP, IP, Stack)

- Stack faults, hangs, GPFs while scanning some ZIP files, especially those with stored path information.
- GPFs when scanning to make thumbnails.
- Searching for import filters caused a GPF.
- Some 32-bit filters (notably the Microsoft Office filters) caused GPFs.
- Adding a file type sometimes garbled the “Equivalent-To” file type entries, and could cause GPFs later.

Database and Volume Matching

- Volume name and disk drive were not shown in PictureProperties box.
- The volume label in the directory list was not updated after labeling disk.
- Lower case characters were allowed in FAT label, causing later mismatches.
- Keyword search missed some files.
- ThumbsPlus would not create thumbnails on disks with duplicate serial numbers (notably Iomega Zip disks).
- Unusually slow start-up time when a lot of off-line volumes with large trees were in the database.
- Database conversion utility did not work.
- The Database utilities did not run at all on Windows 3.1. (A useless window appeared that wouldn’t do anything, or even close.)

Directory and Thumbnail List Issues

- File list was not automatically updated when files are removed or added to the current directory.
- Folders were sometimes colored incorrectly.
- Off-line volumes still appeared, even if “Show Off-line Volumes" was unchecked.
- The keyboard now moves in the File List or Directory List to the first or next item starting with the keyed character.
- Scanning disk or removing thumbnails were not properly interruptible.

ZIP Processing

- TTF files within Zips were not thumbnailed.
- Long file names with spaces within Zips were not thumbnailed.
- Progress meter exceeded 100% when ZIP files were scanned on a volume or tree.
- ZIP files with sub-directories sometimes caused GPFs.

Catalog and Contact Sheets

- Catalog printing would not always list all available printers.
- Catalog printing would sometimes not print in color output to some printers.
- Directory default for making contact sheets was meaningless.
- There were column, alignment and margin problems when printing catalogs.
- The bitmap background option was not functional when making contact sheets.

File Loading and Processing

- Bi-level images with a color map were not displayed correctly.
- MOV files didn’t work (not a problem with Thumbs; QuickTime32 2.1.1 beta doesn’t provide MCI drivers).
- CSWATM16.EXE (for installing and removing ATM fonts) was not distributed.
- PFB and DXF files were not in THUMBS.TYP as distributed.
- AVI and MOV files showed distorted on some systems when toolbar or status line were enabled.
- Some CEL files (Single-frame FLC format) were not processed.
- Targa files (TGA) files saved with color palettes were not saved properly.
- Highcolor (16-bpp) BMPs caused system failure or weird displays.

File Viewing & General User Interface

- Network licenses were not always handled properly.
- Gamma correction slider wiggled on the left inexplicably.
- Cursor blinked when dragging files to a directory.
- There were two “Properties” (I) buttons in the Options - Customize Toolbar dialog.
- Mouse cursor sometimes disappeared if you exited a slide show using ESC.
- View window toolbar was not being updated correctly.
- Sometimes a context menu from the window behind the view window would appear after closing a view window using Right-double-click.
- View window became inoperative when Rotate/Resize failed to allocate enough memory to perform the operation.
- A problem with some displays reducing large images (unusually-colored grids appear, for example) was worked around.

Raw Grayscale and RGB Enhancements

The INI file format for specifying standard raw file dimensions and characteristics has changed in this release. This allows many more raw formats to be loaded by ThumbsPlus, and even some uncompressed formats that aren’t truly “raw.”

In order to be able to process raw files in batch mode, and to automatically make thumbnails for them, ThumbsPlus recognizes raw files by the file extension and file size. Most often, raw files have standard dimensions and characteristics which result in specific file sizes. You enter the dimensions in the THUMBS.INI file and use OptionsPreferencesFile Types to specify the file extensions.

All entries for raw types go in the [Raw] section of THUMBS.INI. The general format for an entry is shown below:

*<width>x<height>{*2}-<format>-<bits per pixel>-<bytes to skip at beginning>-<bytes to skip at end>*

Width	The width (in pixels) of the image	
Height	The height (in pixels) of the image	
**2*	Specified to replicate scan lines	
Format	G	Grayscale (low-high for 16-bit samples)
	M	Motorola-format grayscale (high-low for 16-bit samples)
	R	RGB (8-bit samples)
	B	BGR (8-bit samples)
Bits per pixel	The number of pits per pixel (8, 16, 24 or 32).	
Bytes to skip at beginning	The number of header bytes to skip at the beginning of the file	
Bytes to skip at end	The number of bytes to ignore at the end of the file	

For example, a 512x512 16-bit grayscale Nanoscope image with 8192 bytes of header information would appear as:

512x512-G-16-8192-0

Often, scientific and medical raw images have (even more) raw data after the image information. For example, some of the Nanoscope images I have examined include another 512x512x16-bit array of unprocessed data at the end of the file. In this case, the entry would be:

512x512-G-16-8192-524288

Some ocular imaging systems produce raw grayscale files in which only half the scan lines are represented in the file. You can tell ThumbsPlus to replicate each scan line as follows:

1024x512*2-G-8-0-0 *(The displayed image is 1024x1024)*

Raw 24-bit RGB (8 bits per sample) images of 640x480 would be represented as:

640x480-R-24-0-0

An example [Raw] section, encompassing all of these examples, would then be:

[Raw]
512x512-G-16-8192-0
512x512-G-16-8192-524288
1024x512*2-G-8-0-0
640x480-R-24-0-0

Using the ThumbsPlus Database Utilities

With the registered version (3.0b-R), Cerious Software provides he ThumbsPlus Database Utilities (TDButil) to convert, repair, and compact ThumbsPlus databases. The user interface is simple – a small window with three functions on the Database menu. (*Convert*, *Repair* and *Compact*, naturally). Select a function, then choose the database to process.

Exclusive access to the database is required for all three functions – you cannot have the database open in ThumbsPlus, or open from any other system on the network.

Converting Version 2.x Databases

The "Convert" selection allows you to convert ThumbsPlus version 2 databases (.TUD) to version 3 format (.TDB). Because ThumbsPlus now stores a lot of information about files that was not saved in version 2, there are some limitations to the conversion process:

1. Because the volume type was not stored in version 2, the conversion utility cannot tell the difference between a CD-ROM and other removable media. Therefore, converted CD-ROM volumes will have a diskette icon in the directory list rather than a CD-ROM icon.

2. The old format did not store volume serial numbers, so removable disk matching is performed on the volume label only.

3. There are several items of file information which were not stored in the old database. These items will not be shown for thumbnails in version 3 until they are updated:
   - Image dimensions (width and height).
   - Image color format and depth.
   - Image resolution (dpi).
   - File size

4. Thumbnails were stored in the database with a gray background in version 2. These gray backgrounds are converted to version 3. When you update the thumbnails in version 3, the gray backgrounds will be replaced with the current background color.

You can combine multiple .TUD files into a single TDB file by re-using the same file name for the "Convert To" database.

Repairing ThumbsPlus Databases

ThumbsPlus databases are quite complex, and may become damaged in several ways. The most likely is interrupted disk updates when the computer loses power or crashes. Other causes are damaged disk information (FAT tables, directories, cross-linked files, etc.). You should run SCANDISK or CHKDSK regularly to let you know that these kind of problems have occurred.

Obviously, the primary way to correct database problems is to reload from backups. You *do* make backups regularly, don't you? That hard disk is not going to last forever!

Should the database become damaged, you may receive database (TPDB) errors, GP faults in TPDB.DLL, or missing or garbled thumbnails. Though not a substitute for a regular backup procedure, the *Repair* utility will do its best to recover as much of the information in the database as possible.

Note that the Repair utility requires exclusive use of the database. On 16-bit Windows, it does not multi-task, so while repairing a database on Windows 3.1, you will not be able to perform other tasks.

Compacting ThumbsPlus Databases

This option compacts (purges) a database so that deleted space is recovered and made available on your hard drive. Note that this option is needed much less frequently in version 3 than purging was in version 2 because the new ThumbsPlus database software automatically re-uses any deleted space for new thumbnails. However, if you remove many thumbnails and do not plan to make more, you can use this option to purge.

Note that compacting copies the database to a new file, so you must have enough room on the disk for a copy of all the thumbnails. Depending on the number of deletions performed recently, this may be nearly the size of the original database.

If the compacting process is interrupted by a system shutdown or power failure, there will be a file with the same name as the original database and the extension '.tD~' which you should delete.

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