

ThumbNailer v5

The ThumbNailer

v 5.4

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Main Window

JPG support from IJG 6b
PNG support from LIBPNG 1.0.0
TIFF support from 3.4 b37
PCX Support from Bob Johnson's PCXLib
TGA Support from Tim Bish
Color quantization code from Dennis Lee
Some code from the CodeGuru (www.codeguru.com) pages.

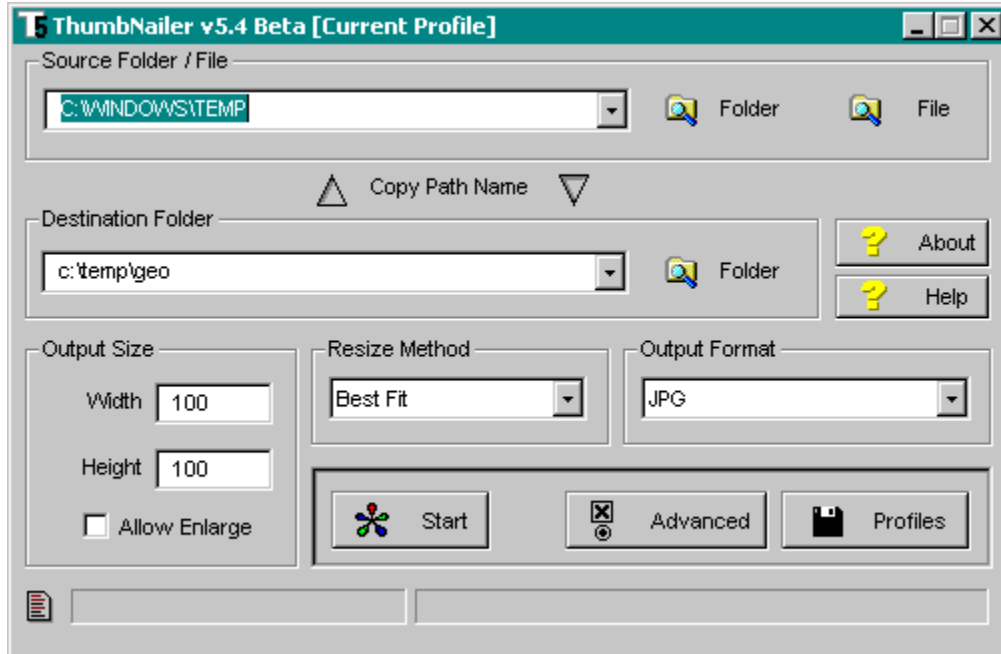
All other code written by Smaller Animals Software using Microsoft's Visual C++ 4.1 and 5.0.
Image processing handled by Smaller Animals Software's ImgDLL / ImgLib

<http://www.smalleranimals.com/index.htm>

ThumbNailer FAQ at : <http://www.smalleranimals.com/wwwboard/faq.html>

Registration Information

Main Window



From this screen, you can do everything ThumbNailer was originally designed to do - resize directories full of images quickly and easily. Everything else ThumbNailer does is just an enhancement to this basic idea.

Controls :

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Copy Buttons

Use these buttons to copy the text in the source folder edit control to the destination folder edit control and vice versa.

Width and Height Edit

Output Size and Resize Method Interaction

Use these controls to specify the sizes of the output images.

When you are creating thumbnails using the **Best Fit**, **Fixed Width** or **Fixed Height** resize methods, the **Width** and **Height** fields represent the maximum dimensions your output images will have.

ThumbNailer goes to great lengths to insure that the aspect ratio of the output images is the same as the source images.

If you have selected the **Exact Fit** resize method, the dimensions of the output images will be exactly as you specify. This means that most output images will be distorted. E.g. you can't make a 100 x 150 image into a 200 x 200 image without changing the aspect ratio and thus distorting the image.

Selecting the **Pixel Area** resize method causes the Width field to become a Pixel Area field. This allows you to specify a pixel area for your output images. All output images will be resized so that the product of their width and height is equal (as close as is possible) to your specified area without distorting the aspect ratio of the image.

Selecting the **Percent** resize method causes the Width field to become a Percent field. This allows you to specify a percentage value by which the images will be resized. This can be greater or less than 100.

If you select the **No Resize** resize method, the Width and Height fields are ignored and the output images are the same size as the input images.

If the **Allow Enlarge** button is checked, ThumbNailer will expand images to fit the specified dimensions. If this is not checked, input images which are already smaller than the specified Width and Height will not be enlarged but will be written with their original dimensions.

If you are using the Percent, Exact Fit or Pixel Area resize methods, this button will be disabled.

Aspect Ratio

Aspect ratio is the ratio of the width of an image to its height.

If your input image is 100 x 200 pixels, its aspect ratio is $100/200$, or .5 .

Changing an image's aspect ratio causes a stretching or compressing of the image in one or both dimensions.

Source Folder / File Edit

This is where you specify the root folder from which input images will be read. This path must exist.

You can drag a folder from Explorer or the Desktop into this control.

Use the Folder... button to browse for folders.

You can also enter the name of a single file in this control. This will allow you to process this file. The resulting image file will be placed in the output folder.

Destination Folder Edit

This is where you specify the root directory for all output images to be placed.

You can drag a folder from Explorer or the Desktop into this control.

Use the Folder... button to look for folders.

Resize Method

ThumbNailer provides a variety of resizing options. Most of these methods are included because people have requested them.

No Resize	Output images are written with the same dimensions as the input images.
Best Fit	Output images are sized such that the final size is the largest that will fit in the dimensions specified in the Width and Height fields, while maintaining the source image's <u>aspect ratio</u> .
Fixed Width	Output images are sized such that the width is exactly as specified in the Width field, while maintaining the source image's aspect ratio.
Fixed Height	Output images are sized such that the height is exactly as specified in the Height field, while maintaining the source image's aspect ratio.
Exact Size	Output images are sized such that the width and height are exactly as specified in the Width and Height fields. This will usually change the image's aspect ratio.
Pixel Area	Output images are sized so that the product of the image's width and height are equal to the area specified in the Pixel Area field. The image's aspect ratio is maintained.
Percent	Output images are resized by the specified percentage.

Note that images are automatically enlarged if necessary, when using the Percent, Exact Fit or Pixel Area resize methods. For all other methods, the images will not be expanded to fit, unless you check the Allow Enlarge button.

Output Format

ThumbNailer supports the following file formats for output :

24 bit, same as input	Output images will have the same format as the input images, but in 24-bit mode. AVI images must be written as JPG, BMP, PCX, PNG or TIFF. GIF has no 24-bit mode and will be written as 8-bit.
8 bit, same as input	Output images will have the same format as the input images, but in 8-bit mode. AVI images must be written as JPG, BMP, PCX, PNG or TIFF. JPG has no 8-bit mode; JPGs will be written as 24-bit JPGs.
8 bit grayscale, same as input	Output images will have the same format as the input images, but in 8-bit grayscale mode. JPG has no 8-bit mode; JPGs will be written as JPGs. AVI images must be written as JPG, BMP, PCX, PNG or TIFF.
JPG	Output images will be in the JPG format
BMP 24-bit	Output images will be BMP 24-bit, non RLE
BMP 8-bit	Output images will be BMP 8-bit, non RLE
BMP 8-bit grayscale	Output images will be BMP 8-bit grayscale, non RLE
PNG 24 bit	Output images will be PNG 24-bit
PNG 8 bit	Output images will be PNG 8-bit
PNG 8 bit grayscale	Output images will be PNG 8-bit grayscale
TIFF 24 bit	Output images will be 24-bit TIFF, no LZW compression
TIFF 8 bit	Output images will be 8-bit TIFF, no LZW compression
TIFF 8 bit grayscale	Output images will be 8-bit grayscale TIFF, no LZW compression
PCX 24 bit	Output images will be PCX 24-bit
PCX 8-bit	Output images will be PCX 8-bit
PCX grayscale	Output images will be PCX 8-bit with a gray palette
GIF (non LZW)	Output images will be GIF, non LZW-compressed.
GIF grayscale (non LZW)	Output images will be GIF grayscale, non LZW-compressed.
TGA 24 bit	Output Images will be TGA, 24 bit
TGA 8-bit	Output Images will be TGA, 8-bit
TGA grayscale	Output Images will be TGA, 8-bit grayscale
Raw (all)	Output will be as ASCII text

Note:

Unisys owns the patent on the compression system used in normal GIF images: LZW. ThumbNailer uses a different type of compression. The files created will still be valid GIF files, but they will be somewhat larger than normal (LZW compressed) GIFs. This is a legal issue.

Start

Pressing Start will cause ThumbNailer to begin processing files. A progress dialog will be presented, and the status bars at the bottom of the main window will display the actions that ThumbNailer is performing.

All options you have set will be applied to all output images.

Advanced

This is how you get to the hundreds of advanced options that ThumbNailer provides.

[File / Dir Options](#)

[Input Filter](#)

[Operation](#)

[Image Options](#)

[Composite Page](#)

[Overlay Page](#)

[Log Page](#)

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[Registration](#)

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Single File Operation

You can use ThumbNailer to process images one at a time.

Place the name of the file you want processed in the Input Folder / File control. You may also drag files from the desktop onto this control.

Press Start and ThumbNailer will process the file using all of the options you have set. ThumbNailer will write the output image into the Output Folder.

Note : Log files (both text and HTML) and composites are not written when processing single files.

File / Dir Options

The screenshot shows the 'File / Dir Options' dialog box. It has five tabs: 'File / Dir Options', 'Input Filters', 'Image', 'HTML', and 'Overlay Image'. The 'File / Dir Options' tab is selected. The dialog is divided into three main sections. The top section, 'Output Naming Style', contains a dropdown menu set to 'Auto-Numeric Suffix', a text box for 'Prefix / Suffix', and a dropdown menu for 'Case Change' set to 'No Change'. The middle section, 'Folder Processing Options', contains several checkboxes: 'Always Create Output Folder' (checked), 'Read Files In Subfolders', 'Duplicate Source Tree For Output', 'Create Output As Subfolders In Source Tree', and 'Clear Destination Folder (and all sub-folders) Before Processing. (Moves Files to the Recycling Bin)'. There is also a text box for 'Source Branch Path' containing the word 'Thumb'. The bottom section contains a button labeled 'Image Format Options' with a small icon.

Output Naming Style

Output files normally retain the name of the input file. You can choose to have ThumbNailer create new names using one of the methods described below :

Overwrite

ThumbNailer writes the output file with the same name as the input file. Existing files are overwritten.

Auto Numeric Suffix

ThumbNailer tests checks that a file with the output name doesn't already exist in the output directory. If one does exist, ThumbNailer changes the output name by appending a "1" to the end of the file name. If there is a file that matches this name, the "1" becomes a "2", and so on.

Note : *do not use this style when doing AVI frame extraction. The AVI frame extractor will generate its own numeric suffixes. Choosing this option will cause unpredictable results.*

Text Prefix

The prefix/suffix text is added to the beginning of the output file name.

Text Suffix

The prefix/suffix text is added to the end of the output file name.

Text Prefix + Auto Numeric Suffix

This allows you to create a list of thumbnails with names that are created by adding a number to your text prefix text. The files will be named like this :

File1.jpg
File2.jpg
File3.jpg
and so on.

Auto-numeric (zero-padded)

ThumbNailer tests checks that a file with the output name doesn't already exist in the output directory. If one does exist, ThumbNailer changes the output name by appending a "00000" to the end of the file

name. If there is a file that matches this name, the "00000" becomes a "00001", and so on.

Bob.jpg -> Bob00000.jpg

Note : do not use this style when doing AVI frame extraction. The AVI frame extractor will generate its own numeric suffixes. Choosing this option will cause unpredictable results.

Prefix Plus Auto numeric (zero-padded)

This allows you to create a list of thumbnails with names that are created by adding a zero-padded number to your text prefix text. The files will be named like this :

File00000.jpg

File00001.jpg

File00002.jpg

...and so on.

Prefix / Suffix

Enter your prefix or suffix here.

Case

No Change

Leave upper/lower case as set in input filename

Lower

Force output filename to lower case

Upper

Force output filename to upper case

Directory Options

Always create output folder

ThumbNailer will create the specified output directory. This may include any number of subdirectories.

Read files in subfolders

ThumbNailer will process all image files in all subdirectories of the specified input directory.

Duplicate source tree for output

If the input directory contains a subdirectory, ThumbNailer creates a corresponding subdirectory below the output directory. All subdirectories of the input directory will be duplicated and all files within those subdirectories will be processed.

Create Output as Subfolders in Source Tree + Source Branch Path

This allows you to put all thumbnails into subfolders off of the folder where the original images reside. ThumbNailer will create a subfolder with the specified name in the Input folder. The Output folder is ignored. This can be used in conjunction with the Read Files in Subfolders option to create a thumbnail subfolder in each of the source folders.

Clear Destination Folder Before Processing

ThumbNailer will move all files and subfolders in the destination folder to the Recycle Bin before starting to process.

Image Format Options

This will bring up the [Image Format](#) dialog.

Image Formats

This dialog allows you to set the options for the reading and saving of different image file formats.

[WMF Options](#)

[JPG Options](#)

[PNG Options](#)

[AVI Options](#)

[Raw Options](#)

Input Filters

File / Dir Options	Input Filters	Image	HTML	Overlay Image
Include Formats <input checked="" type="checkbox"/> JPG <input checked="" type="checkbox"/> GIF <input checked="" type="checkbox"/> BMP <input checked="" type="checkbox"/> TIF <input checked="" type="checkbox"/> TGA <input checked="" type="checkbox"/> PNG <input type="checkbox"/> PCX	File Name Filters Include <input type="text" value="*"/> No file extensions! Exclude <input type="text"/>	Exclude Folders <input type="text"/> Excludes all files and subfolders in folders matching this pattern.		
Size Filter Ignore Size <input type="text" value="1000"/> bytes	Date Filter Mon, Dec 07 1998 Ignore Dates	Sort Before Processing No Sort <input type="checkbox"/> Sort Descending		

ThumbNailer can filter, for or against, many different file attributes. Note that it is very easy to set the filters so that no files are included.

The filters are processed in this order :

1. Format
2. File Name Include
3. File Name Exclude
4. Date
5. Size

Include Formats

BMP, JPG, TIFF, PNG, PCX, GIF, TGA, AVI, WMF

Check the file formats you wish to use for input.

File Name Filters

Note : Do not use file extensions in these fields.

Include

Enter a filename matching pattern. This will cause ThumbNailer to include only those files that match your pattern. Do not enter file extensions here.

Exclude

Enter a filename matching pattern. This will cause ThumbNailer to ignore those files that match your pattern. Do not enter file extensions here. This pattern can contain any combination of valid filename characters and “*”s. A “*” can represent any number of other characters.

Note : “*” will cause all files to be excluded.

Exclude Folders

Exclude Folders

Enter a folder name. If ThumbNailer finds a folder matching this pattern as it scans for files, it will ignore this folder (and all subfolders of this folder). This folder name can contain any combination of valid

filename characters and `“*”`s. A `“*”` can represent any number of other characters.

Note : `“*”` will cause all folders to be excluded.

Size Filter

Enter a size, in **bytes**, of the files you want Thumbnailer to filter.

Ignore Size

Thumbnailer will ignore the file size.

Include Smaller

Thumbnailer will only process files that are smaller than the file size limit you have specified.

Include Larger

Thumbnailer will only process files that are larger than the file size limit you have specified.

Date Filter

You can choose to have Thumbnailer process only files that were last modified before or after the date you specify.

Date

Enter the date here in dd/mm/yyyy format.

Sort Before Processing

No Sort

Images will be processed in the same (apparently random) order that they are listed in when you type DIR from a DOS prompt.

Alphabetic

This causes Thumbnailer to perform an alphabetic sort on the input file names. This will insure that the files are processed in alphabetical order.

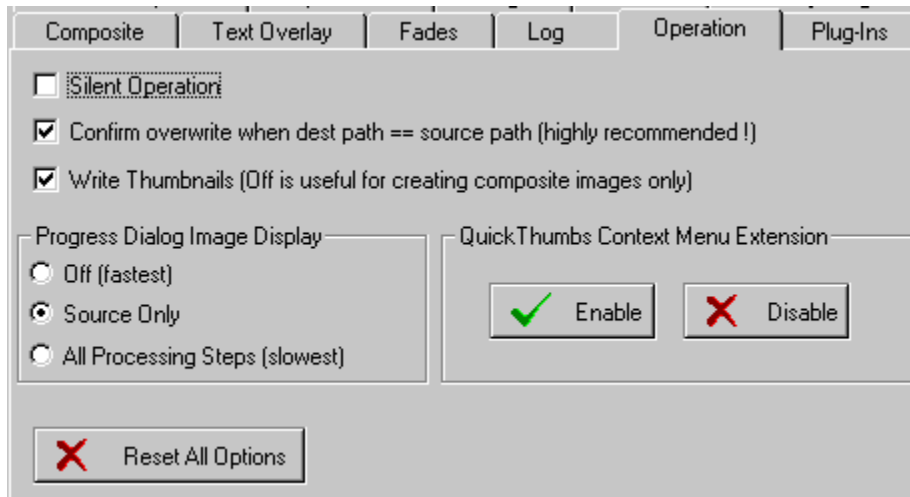
Date

This causes Thumbnailer to perform a date sort on the input file names. The newest files will be processed first.

Descending

This will change the sort order to descending. Z..A, older dates first.

Operations Window



Silent Operation

No message boxes will be launched once Start is pressed. Errors will be reported in the error log at the bottom of the main window.

Prompt Before Source File Overwrite

If this is on, ThumbNailer will prompt you if the destination file is the same as the output file. This prevents accidental overwriting of your source files. It is recommended that you leave this on.

Write Thumbnails

You can choose to have ThumbNailer not write the final thumbnails. This can be useful if all you want is to create composite images. If you create HTML files with this turned off, however, ThumbNailer will generate files which assume the thumbnails *have been written*.

Reset all options

All options will be reset to the default values.

Progress Dialog Image Display

You can choose to have ThumbNailer display the image it's currently working on. Note that this will slow down the thumbnail creation, sometimes, considerably.



Off (fastest)

Turn image display off.

Source Only

Display the source image only.

All Processing Steps (slowest)

This shows all image processing steps. Some steps are very fast and you may not see them go by. Because this can cause six resize and display operations per file, this is definitely not something you'll want to use on long jobs.

QuickThumbs Context Menu ExtensionQuickThumbs

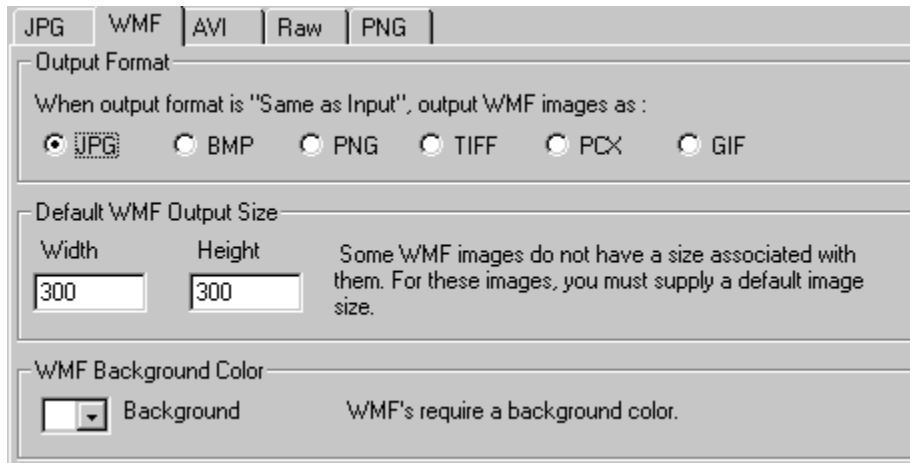
This allows you to create thumbnails of images from within Explorer, a File Open/Save dialog, My Computer, etc. – any place where right-clicking a file will bring up a context menu.

This shell extension is disabled by default.

This dialog allows you to use some of the basic ThumbNailer functions to quickly produce thumbnails of images while you're browsing folders. It has limited support for ThumbNailer's full option set.

Enabling or disabling QuickThumbs requires you to restart Windows in order for the change to take effect. Actually, it only requires that you restart Explorer, but that is most easily accomplished by restarting Windows.

WMF Page



JPG WMF AVI Raw PNG

Output Format

When output format is "Same as Input", output WMF images as :

JPG BMP PNG TIFF PCX GIF

Default WMF Output Size

Width Height Some WMF images do not have a size associated with them. For these images, you must supply a default image size.

300 300

WMF Background Color

Background WMF's require a background color.

ThumbNailer supports the input of Windows Metafiles. WMF's are unique among the supported formats in that they are not actually rectangular sets of pixels, but rather are sets of Window graphics drawing instructions. For this reason, ThumbNailer only supports WMF input.

Output Format

Because ThumbNailer does not write Windows MetaFiles, you must choose a format for them to be output as when the output format is one of the "Same as input" styles.

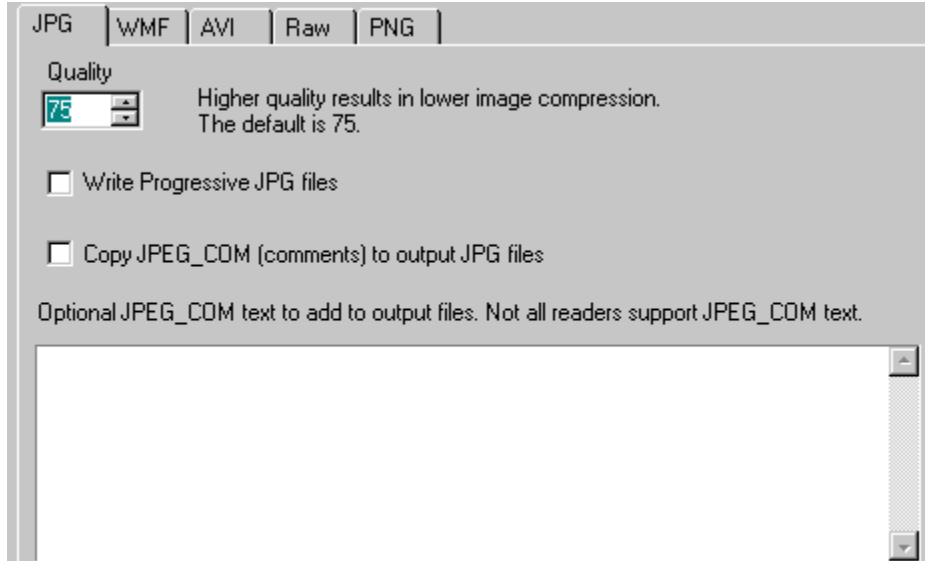
Default WMF Output Size

Some WMF's do not have a size associated with them : they take the size of the space they are drawn into. For these files, a default size must be assumed, so that they can be used in the Percent, Pixel Area and No Resize methods. This is also the size used to read WMF's for overlay and fade mask application.

WMF Background color.

Because WMF's may have transparent areas, you must choose a color on which they are drawn.

JPG Page



Quality

Higher quality results in lower image compression. Default is 75.

Write Progressive JPGs

“Progressive” JPG is a flavor of JPG in which smart readers (most web browsers, for example) can display the image as it is being read (transferred across the web, for example) in such a way that the image is displayed as a series of successively sharper images. This will not dramatically affect the output image size.

JPG Comment Text

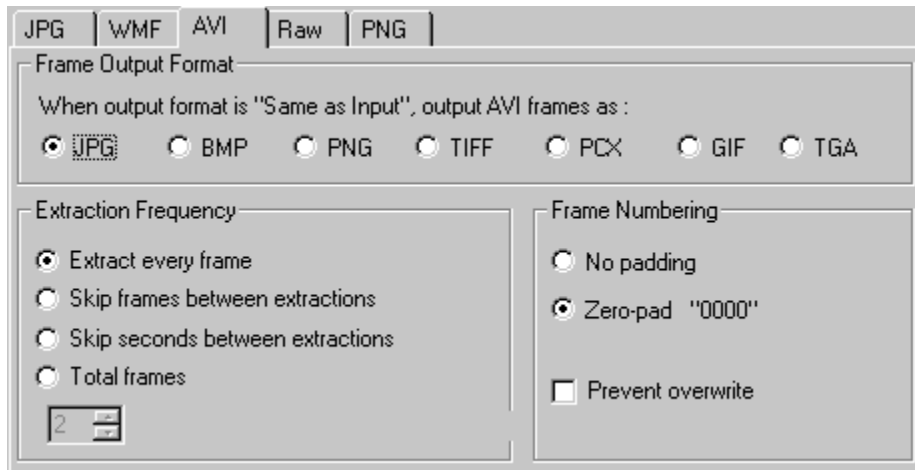
Copy JPEG_COM (comments) to output files

JPG files can contain comment text. If you check this, all comment text from the input files will be written to the output files. Not all JPG readers or writers will recognize or pay attention to this text.

Additional JPEG_COM text

You can specify your own comment text to be written to the output JPGs. This must be plain ASCII text.

AVI Page



AVI Notes

Because of the way AVI frames are returned to Thumbnailer from the operating system, large (> 1MB) AVI files will take considerably longer to process than smaller AVI files.

This slowdown is due to the way AVI files are composed: most frames are not stored as discrete images, but are stored as a set of compressed changes from key frames. "Key" frames are spaced throughout the video sequence. These are frames that *are* stored as discrete (whole) images.

Playing back video requires that a specified time scale is maintained between frames. Key frames create places for real-time decoders (video players, for example) to jump to if they can't keep up with the decompression of the frames between key frames.

Ex. If your computer is decoding frames and finds that it is falling behind the clock, it will skip to the next key frame to make up time. A key frame is already a (compressed) whole image, so no further processing is required. This is the cause of the annoying jumping effect that you find when playing large video sequences on slow PCs.

Decoding most frames requires that first the appropriate key frame is located and decompressed, then all of the following frames (which are really just incremental changes to the key frame) are decompressed and applied to the key frame image. Ex. Grabbing the third frame in a sequence requires that the first frame (the key frame) is decompressed. Then, the second frame is created by applying the appropriate changes to the key frame. Then, the third frame is created by applying the appropriate changes to the second frame.

Key frames take up a lot of space, and this is the reason there may be few of them. But if there are *too* few key frames in an image, decoders will spend a long time creating the in-between frames.

Frame Output Format

If you are using any of the "Same as Source" options for destination file format, you must choose a file format for AVI frames to be written as. The default is JPG. For every frame in an AVI file, Thumbnailer will output one destination file, consecutively numbered.

Extraction Frequency

Because AVI files can contain hundreds of frames, you may want to extract only a subset of the total frames. These controls allow you to specify how many frames to extract.

Thumbnailer always extracts frame 0 from the AVI file.

Extract every frame

Extracts all frames.

Skip frames between extractions

Enter the number of frames that you wish Thumbnailer to skip between frames that it extracts. Ex. If you give a value of 4, Thumbnailer will extract frame 0, skip 1,2,3 and 4, then it will extract frame 5, etc..

Skip seconds between frames

Enter the number of seconds (whole numbers only) that you wish Thumbnailer to skip between frames. Ex. If you enter a 3, Thumbnailer will extract frame 0, then it will extract the frames that occur at times 3 sec, 6 sec, 9 sec, etc..

Total Frames

Enter the total number of frames that you wish Thumbnailer to extract from the AVI. Thumbnailer will extract this number of frames, evenly-spaced throughout the AVI.

Frame Numbering

All extracted AVI frames are named in this manner :

1. The base name from the AVI is used as the base name for the frame. Ex. the base of Bear.AVI is "Bear".
2. The renaming options from the File / Dir tab are applied (prefix , suffix, numeric suffix). Ex. "BearThumb"
1. The AVI frame number is added to the end of the name : Ex. BearThumb0002
2. The output file format extension is added. Ex. BearThumb0002.JPG

Note : For AVI frame extraction, it is recommended that you do **not** use the Auto-Numeric Suffix renaming style from the File / Dir options tab. The Auto-Numeric Suffix option will cause unpredictable results when used with the numeric suffixes added in step 3, above.

Zero-pad "0000"

The numbers added to the ends of the base AVI name are padded with at least three zeros. Ex. An AVI with three frames, Bear.AVI, will generate Bear0000.jpg, Bear0001.jpg and Bear0002.jpg. This implies a limit of 10,000 frames per base AVI.

No pad

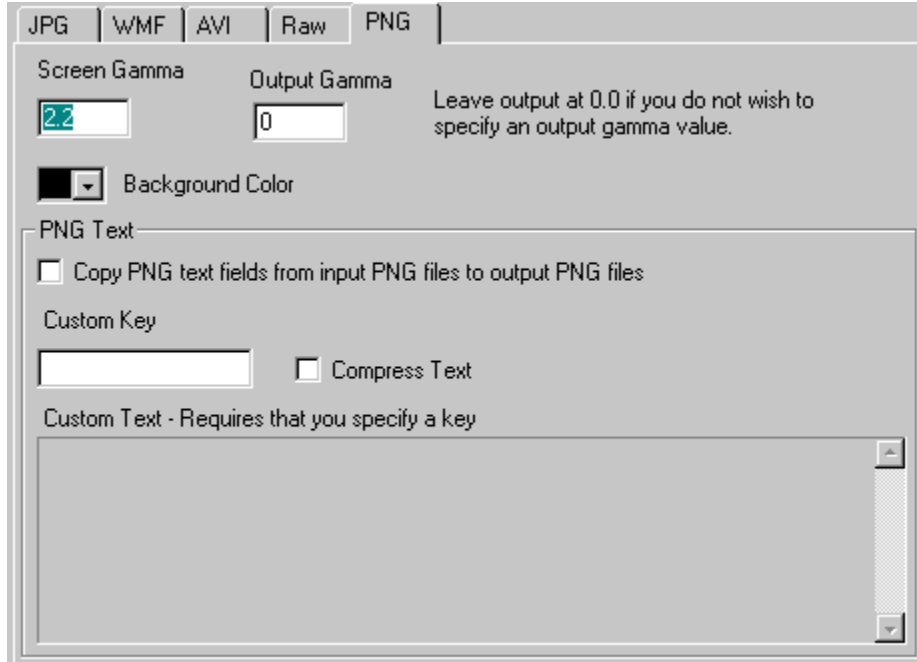
No zeros are added to the output frame name. Ex. An AVI with three frames, Bear.AVI, will generate Bear0.jpg, Bear1.jpg and Bear2.jpg.

Prevent Overwrite

If this is checked, Thumbnailer will re-number output frames so that they don't overwrite any files that may already be in the output folder. This could lead to files with numbers at the end of their filename which are not their actual frame number. Internally, Thumbnailer uses the Auto-Numeric Suffix generator to prevent output file overwriting.

If Prevent Overwrite is not checked, the numbers at the ends of frame filenames will be the same as their frame number. Any files already in the output folder will be overwritten in case of a name collision.

PNG Page



Background Color

PNG files can be written with a specified background color. This color is blended with the image using the PNG alpha channel. The color is not specified in all PNG files. Setting this also allows you to specify a color to use in those PNG files for which the background color is not specified.

Screen Gamma

This is the gamma value of your monitor. 2.2 is a good guess for most PC monitors.

Output Gamma

If you want to specify an output gamma for your PNG images, do it here. If you leave the value at 0, no gamma is written to the file. If you want to specify a value, a value of $1 / \text{ScreenGamma}$ is recommended, unless you know what you're doing.

Copy PNG text from input

PNG files can have an arbitrary number of text fields in them. If you want to preserve the text in the input PNG files when writing the output PNG files, choose this.

Key

PNG text fields are composed of a key of 1-79 chars, and an optional text field. These must be printable characters! Note : without a key, you cannot have text.

Text

PNG text can be any size. Note : without a key, you cannot have text.

Compress

PNG text can be compressed in the file.

Image Page

File / Dir Options	Input Filters	Image	HTML	Overlay Image
Sharpen <input type="checkbox"/> Sharpen Level 20		Pixel density <input type="radio"/> Ignore <input type="radio"/> Pixels / inch <input checked="" type="radio"/> Copy source <input type="radio"/> Pixels / cm Density 1 <small>In JPG, PNG and TIFF images, a DPI setting can be saved with the image. PNG does not support Pixels / inch.</small>		
Enhancements <input checked="" type="radio"/> None <input type="radio"/> Lighten Midtones <input type="radio"/> Darken Midtones <input type="radio"/> Raise Contrast <input type="radio"/> Line Art Contrast <input type="radio"/> Apply User LUT User LUT Path <input type="text"/>		Bevel Edges <input checked="" type="radio"/> None <input type="radio"/> Before Matte <input type="radio"/> After Matte		
Resizing method <input type="checkbox"/> Use Bi-linear interpolation for reduction <small>Bi-Lin works best with line art, cartoons, hand-drawn images. Leave OFF for photographs.</small>		Background matte <input type="checkbox"/> Background Matte <input type="color" value="black"/> Matte Color <small>Images which do not entirely fill the specified output dimensions will be centered on a solid background.</small>		

Sharpen

Sharpen

ThumbNailer will apply a sharpening matrix to the output image.

Sharpen Level

Control the intensity of the sharpening effect. 0 is low, 100 is high.

Pixel Density

This allows you to specify the pixel density (resolution) for the JPG, TIFF or PNG files that ThumbNailer will write. For simplicity, all images are assumed to have square pixels (density of X = density of Y). This has no real effect on how the images are stored. The value is only used externally. Not all readers care about this value.

Pixel Density

Enter a value.

Ignore

ThumbNailer will write JPG default values for the pixel density settings.

Copy source

ThumbNailer will copy the pixel density settings from the source images.

Pixels / Inch

The pixel density value is assumed to be a pixels / inch value. PNG does not support Pixels / Inch - if this is selected, pixel density will be ignored for PNG files.

Pixels / cm

The pixel density value is assumed to be a pixels / centimeter value.

Background Matte

When using the Best Fit, Fixed Width and Fixed Height resize methods, it often happens that the image you are resizing can not be made to exactly fit into the dimensions you have specified. Using a background matte allows you to put a solid border around the actual image large enough to make the resulting image fit your specified output size.

Background Matte

Check this box to enable matting.

Matte Color

This is the color that the matte will be

Enhancements

ThumbNailer can automatically perform some basic image enhancements for you.

None

No enhancements are applied.

Raise Contrast

A slight contrast raise is applied.

Line Art Contrast

An extreme contrast is applied. This works great for black and white line-art thumbnails. With color images, however, this is extreme.

Lighten Midtones

A slight brightening of the the mid-range colors is performed.

Darken Midtones

ThumbNailer applies a slight darkening of the mid-range colors.

Apply User LUT

All of the above enhancements are performed by applying a Look Up Table to the image. This is a table of 256 values, each in the range 0..255. You can use your own LUT, if you wish. The file must be a 256 line text file with a single number, 0..255, per line.

The image is "passed through" the LUT as follows :

If a pixel in the source image has a value of 25, the output pixel will become the 25th value in the LUT.

Ex. if your LUT file has the following values :

```
255
254
253
<252...3>
2
1
0
```

your image will be photo-negative. This LUT is provided with ThumbNailer as the file `Inverse.LUT`.

Bevel Edges

You can choose to have ThumbNailer bevel the edges of the thumbnails. This gives a 3-D look to the images.

None

Don't apply any beveling

Before Matte

Apply bevel before the image is matted.

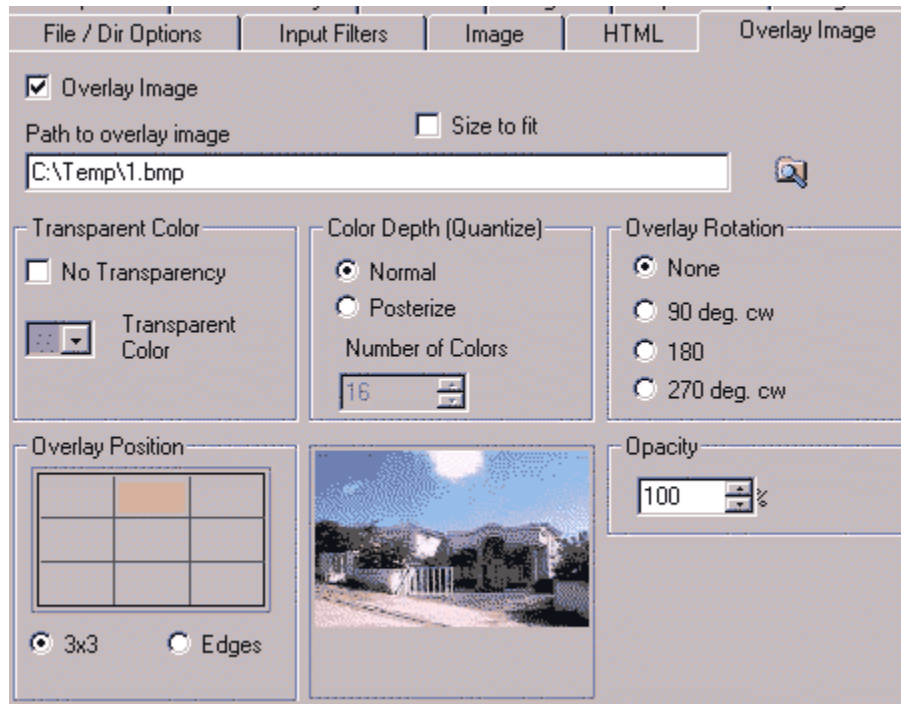
After Matte

Apply bevel after the image is matted.

Bi-linear Interpolation**Use Bi-linear Interpolation for reduction**

This is a different reduction method than TN normally uses. It generally works best with line art, drawings, paintings, etc.. For photographs, you will want to leave this unchecked.

Overlay Page



This allows you to overlay an image over all input images. This is handy if you want to stamp your logo, or some informational text over all of your thumbnails.

Overlay Image

Check this to enable overlays

Size To Fit

Check this to force ThumbNailer to resize the overlay image to fit over every output image. If you don't check this, the overlay image will be drawn at its actual size over all output images - it may run off the edges.

Overlay Position

This grid control allows you to position where the overlay image starts. If you have checked Size To Fit, the overlay image will be resized (without changing its own aspect ratio) to fit into the area you have specified. If you don't have Size To Fit checked, the overlay image will only start at the upper left corner of the area you have specified and may extend past.

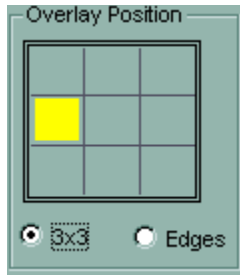
3x3

The grid control becomes a 3x3 grid.

Edges

The grid control allows you to select one of the four edges.

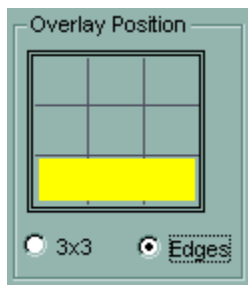
Example 1



If Size To Fit is checked, the overlay image will start on the left edge, 1/3 of the image height down. It will extend 1/3 of the image width to the right and 1/3 of the image height down - just as the yellow rectangle shows.

If Size To Fit is not checked, the overlay image will simply start at the top-left corner of the yellow rectangle and may extend past.

Example 2



If Size To Fit is checked, the overlay image will start on the left edge, 2/3 of the image height down. It will extend to the right edge and to the bottom edge of the image - just as the yellow rectangle shows.

If Size To Fit is not checked, the overlay image will start at the top-left corner of the yellow rectangle and may extend past.

Overlay Rotation

Use these buttons to control the rotation of the overlay image.

Opacity

The overlay image can be transparent. Use this slider to control the percent opacity of the overlay. 100 means the overlay image is opaque (no background shows through) 0 means the overlay is totally transparent (you can't see it).

Transparency

You can choose one color from your overlay image to be totally transparent, regardless of the opacity setting. Areas in the overlay image which contain this color will be 100 % transparent. This is handy if you want to overlay something non-rectangular.

Click the color box to pick a color from the color picker.

Draw Solid

Turn transparency off

Colors

Normal

Selecting this turns off the posterizing effect

Posterize


This causes the image to become "posterized". This is a color reduction with no between-color dithering. Often, it is difficult to select a single transparent color from an image. In photographic images there are often too many subtle shades. This effect will eliminate subtle shades, helping you choose a solid color for transparency. Select the number of colors using the edit control below - 2..32.

The Image

When you move the mouse over the image, press the left mouse button, the color of the pixel directly underneath the cursor will become the Current Color. All pixels with that color will then be considered transparent, and the blue and white checkered pattern will show through.

Log Page

The screenshot shows a dialog box titled "Log Page" with several tabs: "Composite", "Text Overlay", "Fades", "Log", "Operation", and "Plug-Ins". The "Log" tab is selected. Inside the dialog, there are several options:

- Create Log File
- Append To Existing File
- Log file: 
- Path to log file must exist. This will not create subfolders !
- Items to write:
 - Batch Header
 - PNG Text Fields
 - JPG Text Fields
 - Input File Name
 - Output File Name
 - Input Dimensions
 - Output Dimensions

ThumbNailer can create a text log file of every job. Single file operations are not logged.

Create Log File

Check this to enable the log file recording.

Append To Existing File

Check this to allow ThumbNailer to append the output to a given file.

Log File

Enter the path to the log file here. The path to the file must exist; this will not create subfolders. You can browse for files using the "... " button.

Items To Write

Batch Header

This is a detailed header, containing the state of all options.

Input File Name

Write the names of the source files

Input Dimensions

Write the input dimensions

PNG Text Fields

PNG files can contain any number of text fields. This allows ThumbNailer to write them to the log file.

JPG Text Fields

JPG files can contain any number of text fields. This allows ThumbNailer to write them to the log file.

Output File Name

Write the output file name

Output Dimensions

Write the final image size

HTML Generation

The screenshot shows the 'HTML' tab of the ThumbNailer settings window. It is divided into several sections:

- Create HTML Files:** A checked checkbox.
- HTML File Naming:** Two input fields: 'Base Name' containing 'Thumbs' and 'Ext' containing 'htm'. Below are two unchecked checkboxes: 'Use Folder Name for Base' and 'Suppress Suffix on First File'.
- Thumbnail Pages:** A dropdown for 'Images Per HTML File' set to '20'. A checked checkbox for 'Make Table' with a dropdown for 'Columns' set to '4'. An unchecked checkbox for 'Create Links to Source Images'.
- Link Options:** Three unchecked checkboxes: 'Prev / Next Page Links', 'Link Across Folders', and 'URL-Style Links'.
- Buttons:** A vertical stack of buttons: 'Source Pages' (with a circular arrow icon), 'Index Pages' (with '1,2,3' icon), 'Optional Formats' (with a multi-colored 'A' icon), 'Appearance' (with a yellow 'A' icon), and 'User-defined Text' (with a multi-colored 'ABC' icon).

ThumbNailer can create simple HTML files based on the input and output files in a batch. Single file operations are not logged.

The HTML files are placed in the folders with the corresponding output images. If you have multiple output folders (if you are duplicating a source tree, for instance) ThumbNailer will create HTML files in all folders where there are image files.

Note that these are very simple pages. Basically, ThumbNailer is setting up the a skeleton web site. It is expected that you will modify these pages using other software. ThumbNailer is not a Web page designer.

Create HTML File

Check this to enable HTML logging

HTML File Naming

HTML Base Filename

Enter the base file name for the HTML files.

Ex.

If you specify "Thumbs" as the base filename, the first HTML file written will be "Thumbs0.htm"; after the maximum number of images have been added to Thumbs0.htm, Thumbs1.htm will be created and filled in, and so on.

Extension

Enter the text that you wish to use for your HTML files' extensions.

Use Folder Name

HTML index files will be named the same as the current lowest-level folder.

Ex. HTML index files generated in c:\temp\bob would have a base name of "bob".

This has no effect on the source image pages.

Thumbnail Pages

Images Per HTML File

You can set the maximum number of images that ThumbNailer will write per HTML file. When the maximum number of files has been written, ThumbNailer starts a new HTML file in the same directory.

Horizontal Image Layout

Images will be written with no vertical-space formatting tags between them (<P>,
 new lines, etc) . This allows browsers to format them as best fits the width of the display.

Make Table

Formats the output images in an HTML table. Only output images are written!

Table Columns

Choose the number, 1..20, of columns in the HTML table.

Create Link To Source Images

If this is selected, ThumbNailer will generate links to the source images. If you click on one of the images in the HTML file, it will cause your browser to show display the source file.

Note : these links are relative links - there is no drive or "file:/// " tag.

Note : the input and output folders must share a common root directory. If there is no common root, this operation will fail.

Ex.

If your input folder is C:\temp\pix and your output folder is C:\temp\pix\thumbs, this will succeed because C:\temp is the common root directory.

If your input folder is C:\temp\pix and your output folder is C:\thumbs\out, this will succeed because C:\ is the common root directory.

If your input folder is C:\temp\pix and your output folder is D:\thumbs\out, this will fail.

Link Options

Prev / Next Page Links

This will create a pair of Previous and Next links to the previous and next ThumbNailer-generated HTML pages.

Link Across Folders

If you do not check this ThumbNailer will not generate Previous / Next links for thumbnail pages which are not in the same output folder. Only used if Prev / Next Page Links is checked.

URL-Style Links

Most servers will not handle path names with spaces in them. This option will replace spaces with the string "%20". This represents a space in a way that a www server will understand.

Appearance

You can use the [Appearance Dialog](#) to set various HTML display options

Source Pages...

Go to the Source Pages setup dialog. [HTML Source Pages Dialog](#)

User-defined text

This allows you to specify text for insertion at various parts of the three different HTML file categories (Thumbnail, Index and Source). See [User Defined Text Dialog](#)

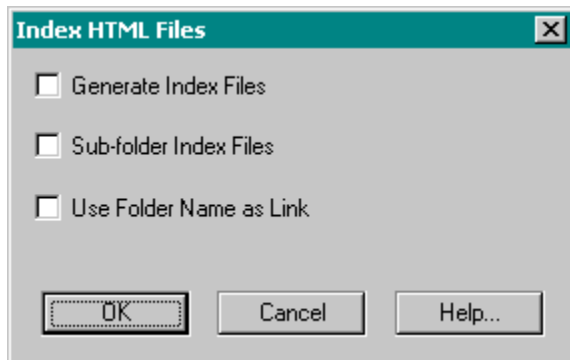
Index Pages

Set up options for HTML index pages. These pages will contain links to all of the thumbnail pages in a folder. See [Index Pages Dialog](#)

Optional Formats

Most browsers do not handle all of the file formats that ThumbNailer can generate. You can specify which formats will get tags and which will not. [Optional Formats Dialog](#)

Index HTML Files



Index Files to Thumbnail Pages

Generate Index File

ThumbNailer will generate a simple index file ("index.htm") with links to all HTML files generated by the last batch.

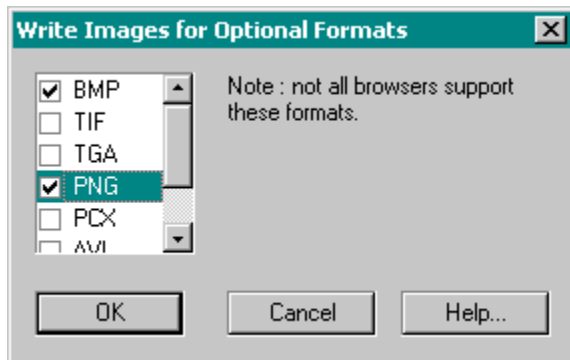
Sub-folder Index Files

ThumbNailer will generate index files to the sub-folder HTML files. These will be referenced by a single "master index". The sub folder index files will be named "_index.htm" or "_index.html".

Use Folder Name as Link

The links that ThumbNailer generates in the index pages will contain the name of the folder where the thumbnail file resides as the text of the link. If this is not checked, the pages will be named "Page 1", "Page 2"...

Optional Image Formats



Optional Formats

PNG

Write PNG files as items

Note : the latest versions of Netscape and IE support PNG files.

TIFF

Write TIFF files as items

Note : most browsers do not support TIFF files.

BMP

Write BMP files as items

Note : most browsers do not support BMP files.

TGA

Write TGA files as items

Note : most browsers do not support TGA files.

PCX

Write BMP files as items

Note : most browsers do not support BMP files.

AVI

Write AVI files as items

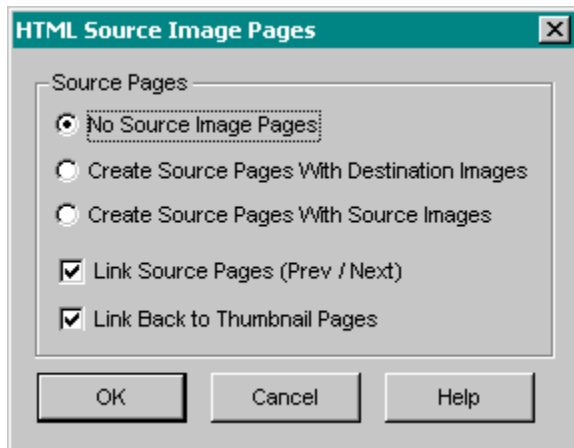
Note : most browsers do not support AVI files.

WMF

Write WMF files as items

Note : most browsers do not support WMF files.

HTML Source Pages



ThumbNailer can create HTML pages for individual source images. These are simple pages which contain any user-defined text and the source image. These will be linked-to by the pages created for the output images. The images in these pages will be linked back to the output pages.

No Source Image Pages

Do not write HTML pages for source images. This is the default.

Source Pages with Output

Write the pages with the output images. They files will contain relative paths to the source image files.

Source Pages with Input

Write the pages with the input images.

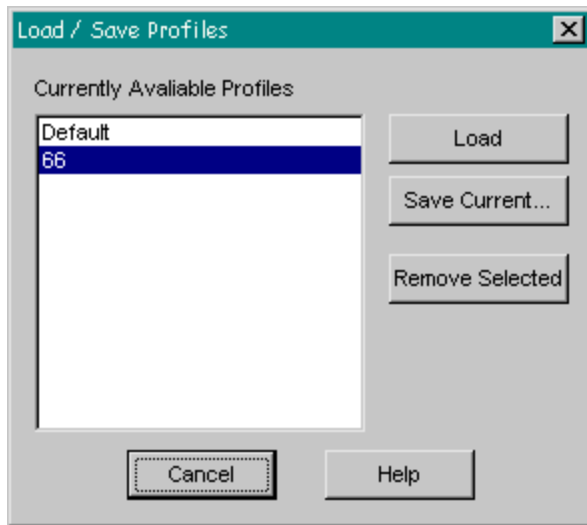
Link Source Pages (Prev / Next)

Checking this will cause Previous and Next links to be placed on source image pages. These links will use the Prev / Next text as specified in the HTML Subtext pages. These will also follow the Link Across Folders rule.

Link Back to Thumbnail Pages

If this is checked, the image will link back to the thumbnail page.

Profiles



As of version 5.0, ThumbNailer allows you to save multiple settings profiles. Previous to this, you had to manually set all parameters each time you wanted ThumbNailer to do something different. Using Profiles, you can save the full set of ThumbNailer options, allowing you to use them again some other time.

Note : Versions 5.3 and higher will move your saved profiles from the Registry to external files in your Profiles folder.

Load / Save Profiles

Use this dialog to load and save your settings Profiles. In v5.0 to 5.2, these are stored in your system Registry. As of v5.3, these are stored as external files in the Profiles folder.

Note : All option settings will be saved to the last loaded or saved profile on exit. Ex. If you save a profile called "MyProfile", change the output height then exit, the new output height will be saved to "MyProfile". Likewise, if you load a profile, "Profile2", change the output height, then exit, the new height will be saved in "Profile2".

Currently Available Profiles

This control lists the Profiles available for loading. In versions 5.0 to 5.2, this lists all profiles in the system Registry; in 5.3 and up, this lists profiles saved into your Profiles folder.

Load

If you have selected one of the available profiles, pressing this will cause ThumbNailer to read it and set all ThumbNailer parameters to the values stored in the Profile you selected. All current settings will be changed to those in the profile.

Save

ThumbNailer will prompt you for a name for your new Profile.

Remove Selected

This will permanently delete the selected profile. In v5.0 to 5.2, this removes the Registry key associated with the profile. In v.53 and up, this deletes the file from the Profiles folder.

Note : Spaces are allowed in Profile names. But, in profiles for v5.3 and up, the profile name is used as the file name for the profile. Not all characters are legal for filenames!

Order of Operation

These are the steps Thumbnailer uses to create each output image.

1. Read the overlay image (once per batch)
2. Rotate and color quantize the overlay image (once per batch)
3. Read the source image (or next AVI frame)
4. Apply fade (generate pre-defined mask or read and resize mask image file, once per image)
5. Calculate the output image size based on input size and resize method.
6. Resize the source image (in memory)
7. Apply overlay image
8. Sharpen
 1. Enhance
 1. Text overlay
11. Matte
12. Quantize to 8-bit or grayscale
13. Write output image

DOS Operation

ThumbNailer can be used from a Win95/NT DOS box.

No output occurs in the DOS box.

By default, ThumbNailer uses the options that were last set from Windows mode.

Note: It is required that you use a space between all parameters. Also, if a single parameter contains a space, you must put the parameter in quotes.

The key to this mode is the `/h` (for “hide”) parameter. It must immediately follow the executable name.

DOS ERRORLEVEL exits

If there are no errors, ThumbNailer exits with a value of -1.

If there is a parameter syntax error, ThumbNailer will exit with a value of 1.

If there is a processing error in a single-file operation, or in the initialization stage of a directory mode operation, ThumbNailer will exit with a value of 2. Note that a file processing error in directory mode will not cause an error level to be set and ThumbNailer will attempt to process all files as specified.

Single File Mode

```
start /wait THUMB4 /h /f input_file output_file <other params>
```

Both `input_file` and `output_file` are required.

Directory Mode

```
start /wait THUMB4 /h /d input_folder output_folder <other params>
```

Both `input_folder` and `output_folder` are required.

Other Params

Reset

```
/x
```

Reset all ThumbNailer options to defaults

Enable Message Box Reports

```
/!
```

This will allow you to see the normal ThumbNailer error reports from DOS mode.

Use Previously-saved Profile

```
/p <profile name>
```

Load and use a previously-saved settings profile. The profile must exist, or system default values will be used instead. If specify other parameters on the command line, they will override those specified in the profile.

Enhancements

No Enhancement

```
/e0
```

Raise Contrast

```
/ec
```

Lower Midtones

/ed

Raise Midtones

/ei

Extreme Contrast

/ex

Use User LUT

/eu <path>

<path> is required and is the path to the LUT file.

Sharpen Image

/v #

is required and represents the percent of sharpness applied.

Resize Method

/r #

is one of :

- | | |
|---|--------------|
| 0 | Best Fit |
| 1 | Fixed Width |
| 2 | Fixed Height |
| 3 | Exact Size |
| 4 | Pixel Area |
| 5 | Percent |
| 6 | No Resize |

Output Size

/s # #

The first # is the width, the second is the height, both are required. If you are using the Percent resize method, the first number is the percentage, the second number is required, but ignored. If you are using the Pixel Area resize method, the first number is the area, the second is ignored but required.

Output Format

/o #

is one of :

- | | |
|----|--------------------------------|
| 0 | 24-bit Same as Input |
| 1 | 8-bit Same as Input |
| 2 | 8-bit grayscale, Same as Input |
| 3 | JPG |
| 4 | JPG grayscale |
| 5 | BMP 24-bit |
| 6 | BMP 8-bit |
| 7 | BMP 8-bit grayscale |
| 8 | PNG 24-bit |
| 9 | PNG 8-bit |
| 10 | PNG 8-bit grayscale |
| 11 | TIFF 24-bit |
| 12 | TIFF 8-bit |
| 13 | TIFF 8-bit grayscale |
| 14 | GIF |
| 15 | GIF grayscale |
| 16 | PCX 24-bit |
| 17 | PCX 8-bit |

18	PCX 8-bit grayscale
19	TGA 24-bit
20	TGA 8 bit
21	TGA grayscale
22	Raw 24-bit
23	Raw 8-bit
24	Raw grayscale

Date Filter

Date Filter

`/t+ <dd/mm/yyyy>`

Include only files modified after the date specified in mm/dd/yyyy

`/t- <dd/mm/yyyy>`

Include only files modified before the date specified in mm/dd/yyyy

Output Naming Style

Overwrite

`/no`

Prefix

`/np <text>`

`<text>` is the prefix and is required.

Suffix

`/ns <text>`

`<text>` is the suffix and is required

Numeric

`/nn`

Output Name Case

`/cn`

Use the same case as the input filename

`/cu`

Force all characters in the output name to upper case

`/cl`

Force all characters in the output name to lower case

Image Overlay

`/oo <path>`

Specify an overlay image. All other overlay parameters will be set to default values.

`/op <pos> <resize> <rotation>`

Specify overlay image position.

`<pos>` is a position flag. The possible values are :

- 0 - top, center
- 1 - bottom, center
- 2 - center, left
- 3 - center, right
- 4 - top, left
- 5 - top, right

- 6 - bottom, left
- 7 - bottom, right
- 8 - center, center
- 9 - top edge
- 10 - bottom edge
- 11 - left edge
- 12 - right edge

<resize> is a true/false flag : 0=FALSE 1=TRUE. If TRUE, the overlay image will be sized to fit the position specified.

<rotation> specifies the overlay image rotation. The possible values are :

- 0 - none
- 1 - 90 degrees clock-wise
- 2 - 180 degrees
- 3 - 270 degrees clock-wise

`/ot #`

Specify the overlay image transparency. 1..100.

`/ob #`

Specify the transparent color in the overlay image. This is a “hex color”, such as used in HTML pages. Ex. 888888 is medium gray.

Matte

`/ma #`

Specify the matte color for the image. This is a “hex color”, such as those used in HTML pages. Ex. ffff00 is yellow.

Text Overlay

`/tt <text>`

Enable text overlay. <text> is the text to overlay.

`/tf # #`

Specify a text overlay font. is the font name. The first # is the font size, in points. The second # is the font color as a Hex Color.

`/tp # #`

Specify text overlay position.

The first value is the horizontal position. The possible values are :

- 0 - left
- 1 - center
- 2 - right

The second value is the vertical position. The possible values are :

- 0 - top
- 1 - center
- 2 - bottom

`/ts #`

Specify text overlay style. The possible values are :

- 0 - use specified text
- 1 - use the file name (you must still provide text in the /tt option, as /tt enables the text overlay)
- 2 - use the file name plus the specified text
- 3 - use the specified text plus the file name

JPG Params

`/jpr`

Enable progressive JPG saves.

`/jq #`

Set JPG quality level. 1..100.

Sample

```
start /wait THUMB4 /h /d c:\images\big c:\images\small /no /r 0 /s 100 100 /o 3
```

This will cause Thumbnailer to read all images from c:\images\big, resize them using the Best Fit method to 100x100 pixels and output them as JPGs to c:\images\small.

Note the spacing between switches and parameters. This is important!

The [QuickThumbs Shell Extension](#) uses this DOS interface to do its work.

Registration

The screenshot shows a registration dialog box with a menu bar at the top containing: File/Dir Options, Operation, PNG, JPG / GIF, Image, Overlay Image, Log, HTML, Composite, Fades, and Registration. The main area contains the following instructions and fields:

- 1) Enter your name.
This must be the same as the one you gave when your Thumb.Lic file was issued !
- 2) Enter your E-mail address.
This must be the address that your Thumb.Lic file was sent to !
- 3) Copy the Thumb.Lic file to this directory :
C:\PROGS\SMALLERIMAGES\RELEASE
- 4) Warning : This may invalidate any previous registration !
- 5) Restart ThumbNailer !

Don't have a license file ?

This is where you enter the registration information that you will be sent if you register this program. After you have registered, you will no longer see this screen.

Unregistered Program Limitations

If you choose not to register ThumbNailer, the following restrictions will be enforced :

1. You will not be able to save settings profiles.
1. You will not be able to load profiles with the Profiles dialog, but you can specify them on the command line for DOS operation.
1. You will be able to process a maximum of 100 files at a time.

To register, please visit <http://www.smalleranimals.com>

Thumb.Lic

This file will be sent to you upon receipt of your registration. You must place this file into the same directory that you run Thumb5.Exe in. The folder name is displayed for you in step 3 on the Registration page.

The Thumb.Lic file contains information used by ThumbNailer to confirm registration. Among other things, it contains the name and email address of the person who registered ThumbNailer. This information will be used to help track down software pirates.

If you choose to give out your Thumb.Lic file, be aware that you are giving out a file with your name in it.

Users of previous versions

ThumbNailer 5.x will attempt to locate and copy ThumbNailer 4.5 (and higher) registration information automatically. Users of ThumbNailer 4.4 and earlier will have to contact Smaller Animals software for a license file.

Log Window

The small page icon at the bottom left of the ThumbNailer main window controls the display of the log window. When errors are encountered, they are automatically sent to this window. If the window is closed when the errors occur, the error log open/close icon will flash red until you open the log window or start a new operation.

Misc Info

This section contains information which is not directly related to a user-interface feature.

TIFF operation

ThumbNailer will read all TIFF sub-formats which are supported by LibTIFF's RGBA interface. From the tests I've run, this is quite a large number of different sub-formats.

One format ThumbNailer will definitely not read is any TIFF file which has been encoded using the LZW compression scheme. This is because the Unisys Corporation, which owns the patent on the LZW compression scheme, has made it prohibitively expensive for small developers to support this technology. This is also the reason GIF-LZW output support is not included in ThumbNailer.

TIFF/LZW files will generally appear corrupt. LibTIFF seems to ignore ThumbNailer's requests that it ignore TIFF/LZW files and instead send me a proper error message. It just sends back garbled images.

Feature Creep

If you have an idea for a feature which would make ThumbNailer more useful to yourself (and others), please send e-mail to smallest@SmallerAnimals.com. Most of what is in ThumbNailer is a result of people just asking "can you do this?" Many things are actually simple to do, but just haven't been brought up.

Bug Finder

If you find and report a bug in the most recent version and have not yet registered ThumbNailer, you will receive the access key free. The bug must be reproducible and must be in the most-recently-released version. You can't say that v2.0 failed to resize square images - that's old news.

FAQ


There is a ThumbNailer FAQ at : <http://www.smalleranimals.com/wwwboard/faq.html>

Discussion Board

There is a ThumbNailer Discussion Board at :
<http://www.smalleranimals.com/wwwboard/wwwboard.html>

HTML Subtext Pages

Thumbnail Text	Source Text	Index Text
<html>		
<head>		
<title>	Thumbnails	</title>
<body>		</head>
		>
	...ThumbNailer-generated tags go here...	
		</body>
		</html>

 Variable List To include text from a file, enter the filename as :
%c:\path\file.txt

Tag Text Pages

You can edit the format of the text that goes into the HREF and IMG tags and the text that is displayed beneath images for both thumbnail and source image pages. [HTML Tag Edit](#)**Previous / Next Labels Page**

You can edit the format of the labels given to the previous / next links on thumbnail pages. [Previous / Next Labels](#)

General Subtext

This dialog shows the general layout of a typical HTML file. ThumbNailer allows you to add text to these areas :

- the <head> section
- the <title> section
- the <body> tag
- between the <body> tag and where ThumbNailer will place its stuff
- between the ThumbNailer-generated stuff and the </body> tag

You can edit this text for each of the three different HTML page categories that ThumbNailer generates :

- Source - Pages generated to show the source images
- Thumbnails - Pages generated to show the output thumbnails
- Index - Index pages that link to the Thumbnail pages

File Import

If you want to include text from a file, enter a “%” followed by the filename, no spaces. ThumbNailer will replace the “%filename” with the text from the file when it goes to write the HTML pages. Files imported in this way are only read once per batch. Files imported in this way may not be specified by using variables. If you need more complex file import options, see the Import operator in the [variables](#) topic.

Note: This operator is only available in the fields on the Index Page Text, Source Page Text and ThumbNail Page Text dialogs! It will NOT work in other text fields.

Variables List

This will display a list of the variables which are available for these text fields.

Head / Title

Note that the Title section is enclosed in the Head section. Even if you don't specify text in the Title section, ThumbNailer will write the <title></title> tags as shown.

Variables

You can cause Thumbnailer to add specific information to text fields by using the pre-defined variables. Not all variables are available on all pages, because the information they represent is not applicable to all pages.

Note : The variables used in v5.4 are different than those used in v5.3. Thumbnailer will convert variables in a profile saved with v5.3 or earlier to the v5.4 style, if you allow it to.

These variables are available on all pages :

curTime	Current System Time
curDate	Current System Date

These variables are only available on certain pages :

srcFile	Current Source Image File
thmFile	Current Thumbnail File
htmFile	Current Output HTML File
cmpFile	Current Composite file

Operators

Besides the variables, there are text operators which can be used to extract and format information. All operators are available on all pages.

Operator	Use
Upper(text)	Convert text to Upper Case
Lower(text)	Convert text to Lower Case
Concat(text 1, text 2)	Concatenate text 1 and text 2 (&Concat(Red, Blue) = RedBlue)
URL(param) friendly escapes	Format param in URL Format (replace non-alpha numeric characters with server-friendly escapes)
Date(file)	File Modification Date of file
Time(file)	File Modification Time of file
Text(file)	PNG or JPG Comment Text from file
SizeB(file)	File Size, in Bytes of file
SizeK(file)	File Size, in Kilo-Bytes of file
XDim(file)	Image Width of image in file
YDim(file)	Image Height of image in file
Dims(file)	Image Dimensions of image in file, as "100 x 100"
Parent(file)	File's Parent Directory (&Parent(c:\bob\me.jpg) = bob\)
Name(file)	File Name, no Path (&Name(c:\bob\me.jpg) = me.jpg)
Path(file)	Path, no Filename, of file (&Path(c:\bob\me.jpg) = c:\bob\)
Ext(file)	File Extension of file (&Ext(c:\bob\me.jpg) = jpg)
NoExt(file)	File Name, no Extension, of file (& NoExt(c:\bob\me.jpg) = me)
RelPath, (File A, File B)	Relative Path From File "B" to File "A", Returns Folder
RelFile, (File A, File B)	Relative Path From File "B" to File "A", Includes "To" File
Import(file)	Read the text of the file into the current expression and evaluate it.

Notes :

1. All operators except for RelPath, RelFile and Concat take a single operand,. Ex.

&Path(srcFile)

2. Any parameter to an operator can be a variable, text, the name of a file, or, the result from another operator.

3. Operators can be freely nested. Ex.

`&Upper(NoExt(srcFile))`

4. Variables can be used without operators :

`&srcFile`

1. In all cases, a “&” character is required to signal the beginning of an Operator/Variable expression. Only one “&” per expression :

`&Upper(NoExt(srcFile))`

not

`&Upper(&NoExt(srcFile))`

6. The Operator/Variable expression ends at the last required closing parentheses or at the end of the longest variable name that matches the text after the “&”. Ex.

`*^&Upper(c:\temp\pic.jpg)^* = ^C:\TEMP\PIC.JPG^*`

and

if `srcFile = c:\temp\me.gif, &srcFile.jpg = c:\temp\me.gif.jpg`

7. Some operators expect their parameter to be the path to a file. Ex.

`&Name(Date(srcFile))`

This expression will generate error text because the Name operator will not be able to find a filename in the result from the Date operator : “Dec 8, 1998” is not a filename.

8. `&Import(file)` will read the text in a file into the current expression. Then, Thumbnailer will evaluate this text for variables/operators. In cases where the Imported file contains Import statements, there is the chance that loops can be established. For example, if the file Input.Txt contains the line :

`&Import(input.txt)`

This will cause Thumbnailer to read Input.txt, and evaluate it. Evaluating the text will cause Thumbnailer to re-read input.txt and evaluate it, etc. To prevent this, Thumbnailer only allows ten levels of nested Import statements.

Samples

Assume : `srcFile = c:\temp\pix\brothers\steve.jpg`

`&Name(srcFile)` = `steve.jpg`

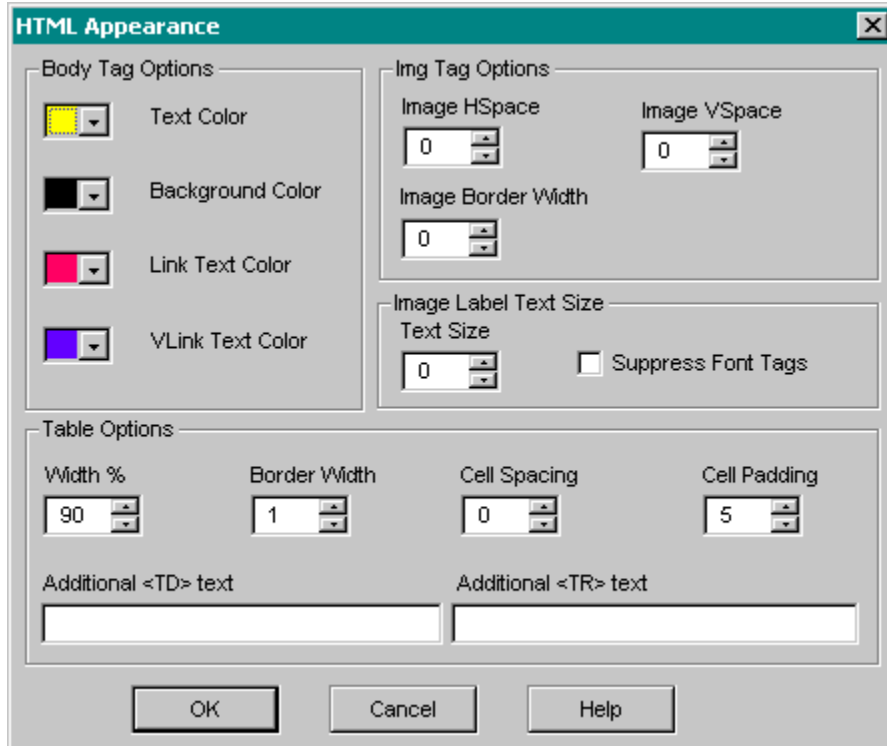
`&Path(srcFile)` = `c:\temp\pix\brothers\`

File : `&Name(srcFile)` is `&SizeK(srcFile)` KB. = File : `steve.jpg` is 71 KB.

`&Concat(Path(srcFile), textfile.txt)` = `c:\temp\pix\brothers\textfile.txt`

`&Import(Concat(Path(srcFile), textfile.txt))` reads `c:\temp\pix\brothers\textfile.txt` into the current expression.

Appearance



This dialog allows you to select various display parameters for the HTML files that Thumbnailer generates.

Body Tag Options

These options control what is entered in the <BODY> Tag.

Text Color

Use this to set the text color

Background Color

Use this to set the background color

Link Color

Use this to set the link color

Img Tag Options

These options control what is entered in the tags.

Image Border Width

Set the image border width

Image Vspace, Image Hspace

Set the Image Vspace and Hspace fields

Image Label Text Size

Text Size

This allows you to set the text size in the standard HTML range of -2 to +2. This applies only to the image

labels.

Suppress Font Tags

If you check this, Thumbnailer will not add `` tags to the image labels.

Table Options

These controls allow you to set various options for the tables that enclose the thumbnails.

Width %

Set the percentage of the browser window that this table will take up.

Border Width

Set the width of the borders for tables.

Cell Spacing

Set the spacing between table cells.

Cell Padding

Set the spacing for the edges of the cells.

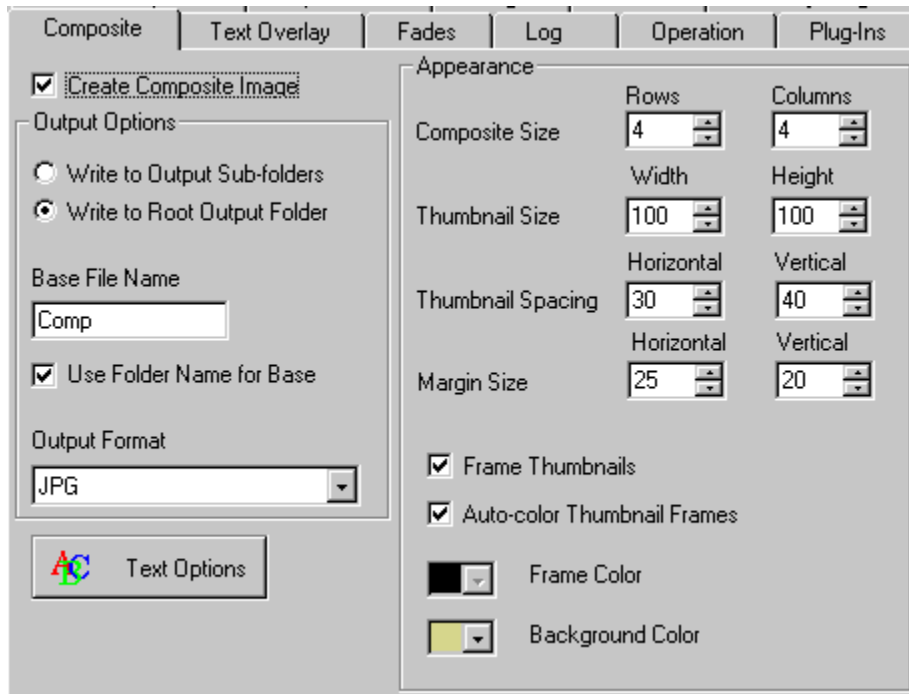
Additional TD Text

This is text that goes inside the `<TD ...>` tag. It is inserted every time a new cell is started.

Additional TR Text

This is text that goes inside the `<TR ...>` tag. It is inserted every time a new row is started.

Composite



ThumbNailer will create composite, contact-sheet, images of all output images in a batch. Output images are arranged on a grid in the composite image. It is sometimes useful to turn off Thumbnail creation when creating composites (see [Operation](#))

Create Composite Image

If this is checked, ThumbNailer will create composite images.

Output Options

Write to Output Subfolders

The composite images will be written to the subfolders in which the output images reside.

Write to Root Output Folder

The composite images will be written to the destination root directory.

Base File Name

Set the base name from which all composite image names will be created. New files names are created by adding a numeric suffix to the base name. The numeric suffix resets to 0 for each new output folder.

Use Folder Name for Base

Instead of using the Base File Name for the file name, this option causes ThumbNailer to use the current folder name.

Output Format

Choose the file format to for the composite images.

Appearance

Composite Size

How many thumbnail images will make up this composite ?

Rows

Specify the number of rows in the composite images

Columns

Specify the number of columns in the composite images

Thumbnail Size

Choose the width and height of the individual thumbnails for this composite image. Thumbnails will be sized to fit into these dimensions. This size, along with the number of columns and rows, and the spacing between the thumbnails, determines the final size of the composite image.

Thumbnail Spacing

Set the number of pixels between thumbnails. Note that setting values too small may cause the image label text to be obscured.

Margins

This controls the distance from the edge of the composite image to the start of the thumbnails.

Frame Thumbnails

Check this if you want your composite thumbnails to appear in beveled boxes.

Auto-color Thumbnail Frames

Allow ThumbNailer to choose the colors for the thumbnail frames.

Thumbnail Frame Color

Choose the thumbnail frame color, if not using Auto-color.

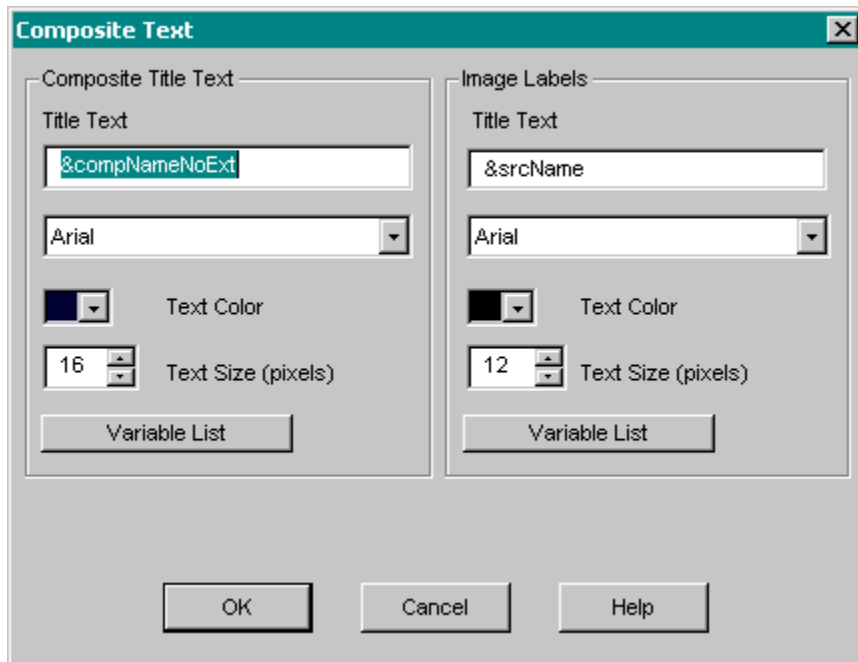
Background Color

Choose the background color for the composite images

Text Options

Launch the [Composite Text Options](#) dialog.

Composite Text



Composite Title Text

ThumbNailer will add a title to the composite pages.

Title Text

The title text to appear on all composite images.

Font Name

Choose from the fonts installed on your PC. This is for the composite titles.

Text Color

Choose the color that the text is output as. This is for the composite titles.

Text Size

Specify the height of the text, in pixels. This is for the composite titles.

Variables List

This will display a list of the variables which are available for these text fields.

Image Labels

Title Text

The title text to appear on all composite images. Note that the space for this text is very limited. Be careful when specifying text. This can contain all cur*, src* and thm* variables.

Font Name

Choose from the fonts installed on your PC. This is for the image titles.

Text Color

Choose the color that the text is output as. This is for the image titles.

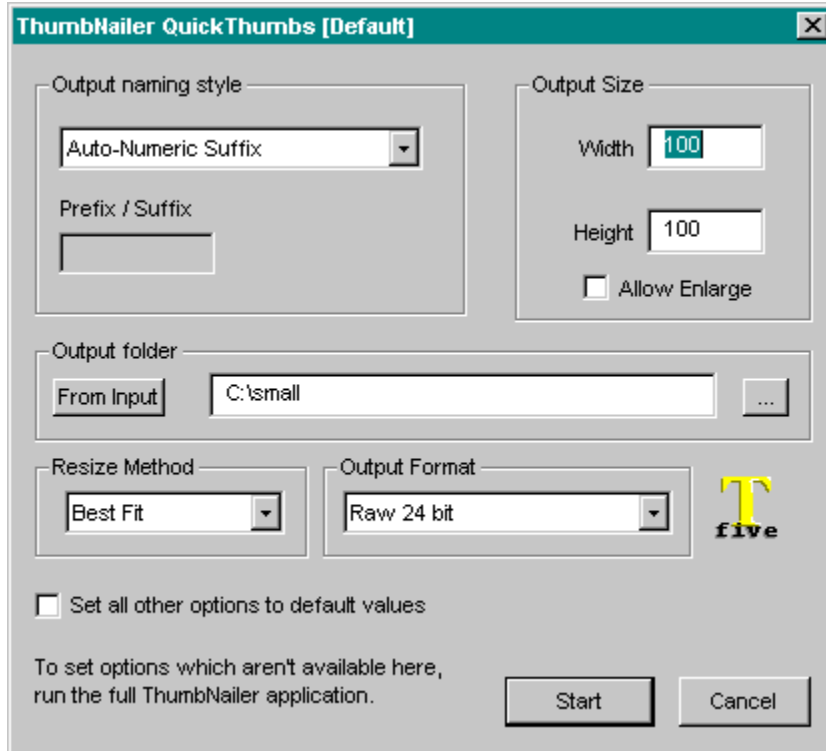
Text Size

Specify the height of the text, in pixels. This is for the image titles.

Variables List

This will display a list of the variables which are available for these text fields.

QuickThumbs Shell Extension



This allows you to create thumbnails of images from within Explorer, a File Open/Save dialog, My Computer, etc. – any place where right-clicking a file will bring up a context menu.

This dialog allows you to use some of the basic ThumbNailer functions to quickly produce thumbnails of images while you're browsing. It has limited support for ThumbNailer's full option set.

If an option can not be set from this dialog it is applied as it was last used the last time the main ThumbNailer application was run. E.g. If you set Sharpening On from the main ThumbNailer app, Sharpening will be applied when you use QuickThumbs.

This processes files only – no folders allowed.

Enabling QuickThumbs

This shell extension is not enabled by default. To enable (or disable) it, use the [Operation](#) Page.

Output Folder

Output Folder

This allows you to specify the output folder for the thumbnails you are about to create. The default is the value saved the last time you ran the main ThumbNailer application.

From Input

This will copy the base directory of the first input file to the Output Folder edit control.

Set All Other Options to Default Values

If this is checked, all options that can't be set from this dialog will be set to the default values. This allows you to override all of the saved options.

All other controls on this dialog perform the same function as they do in the main ThumbNailer

application.

HTML Tag Edit Pages

Thumbnail Tag Text	Source Tag Text	Previous / Next
HREF Tag Text		
<input type="text"/>		
IMG Tag Text		
<input %srcname="" &srcsize\""="" type="text" value="ALT=\"/>		
Image Label Text		
<input type="text" value='\"%srcName"/'/>		
<input type="button" value="Variable List"/>		

See [variables](#) for information on using variables.

HREF Tag Text

If you supply text here, it will be written as `<a href your text>`. For thumbnails pages with links to source pages, this text will be written with the thumbnail image. For source image pages, it is written with the source image.

IMG Tag Text

This is extra text that you can have placed in the IMG tags for thumbnail and source images. It may be any text you wish. ``. The default text for source image pages is :

```
ALT="&Name(srcFile) &SizeK(srcFile)K"
```

If the current source image is "picture.jpg" and is 19.2Kb, this will cause text similar to the following to appear :

```
ALT = "picture.jpg 19.2K"
```


Image Label Text

This is the text label that goes beneath the thumbnail or source image. The default is the name of the current source image : `&Name(srcFile)`.

Variables List

This will display a list of the [variables](#) which are available for these text fields.

Previous / Next Tags

Thumbnail Tag Text	Source Tag Text	Previous / Next
Thumbnail Page		
Previous Page Label	<input type="text" value="Previous Page"/>	
Next Page Label	<input type="text" value="Next Page"/>	
Previous / Next Separator Text	<input type="text" value=" "/>	
Source Image Page		
	<input checked="" type="checkbox"/> Use Previous and Next File Names for Labels	
Previous Page Label	<input type="text" value="Previous Page"/>	
Next Page Label	<input type="text" value="Next Page"/>	
Previous / Next Separator Text	<input type="text" value=" "/>	
 Variable List		

Thumbnail Pages

Thumbnail pages link to other thumbnail pages. You can set the text of these links here.

Previous Page Label

Choose any text you like.

Next Page Label

Choose any text you like.

Previous / Next Separator Text

By default, ThumbNailer puts a vertical bar “|” between the text for the Previous and Next links. But, you can choose any text you like.

Source Pages

Thumbnail pages link to other thumbnail pages. You can set the text of these links here.

Use Previous and Next Page Names for Labels

This option will cause ThumbNailer to use the base name, without file extension (ex. bob for c:\temp\bob.html) of the previous and next pages for the previous/next labels. This overrides any text you have entered manually.

Previous Page Label

Choose any text you like.

Next Page Label

Choose any text you like.

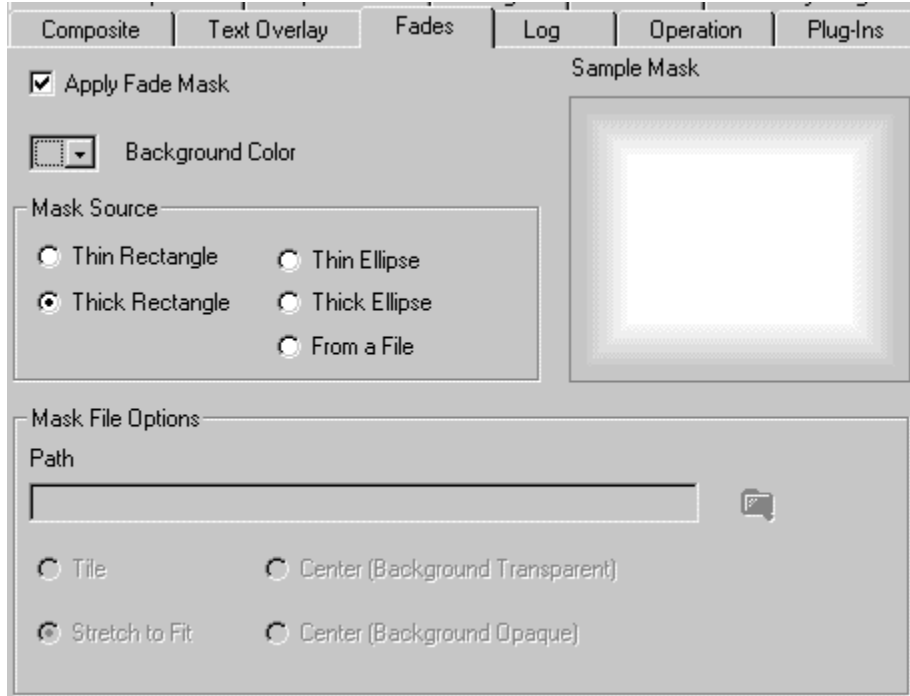
Previous / Next Separator Text

By default, ThumbNailer puts a vertical bar “|” between the text for the Previous and Next links. But, you can choose any text you like.

Variables List

This will display a list of the variables which are available for these text fields.

Fades



ThumbNailer can automatically apply fades to the edges of images. The basic idea is that one image is used as a mask over another image. If you use the predefined fade types (either of the elliptical or either of the rectangular fades), ThumbNailer will construct the mask image for you. But, you are also able to use your own images as mask sources. This allows you a great deal of control over the effect.

Example : If you use the predefined Thick Rectangle fade, your source image will start with black edges then slowly fade in to the full source brightness towards the center of the image.

Apply Fade

Apply a fade to all output images.

Background Color

Choose a color that the image will fade into.

Thin Rectangle, Thick Rectangle, Thin Ellipse, Thick Ellipse

You can choose from these pre-defined shapes.

From a File

If you want to use a fade mask that you create on your own, check this.

Mask File Options

File

Choose the file you wish to use as the mask. For best results, this should be a grayscale image.

Stretch to Fit

The mask image will be resized to fit each output image.

Tile

The mask image will be tiled over each output image.

Center, Background Transparent

The mask image will be centered on the output images and any area not covered by the mask image will be shown normally.

Center, Background Opaque

The mask image will be centered on the output images and any area not covered by the mask image will be totally masked.

Notes on using your own masks

All masks are converted to grayscale before being applied. To avoid surprises, create your masks as grayscale images.

A white pixel in a mask means the source image shows through at 100% brightness. A black pixel in a mask hides the source pixel completely.

Text Overlay

Composite | Text Overlay | Fades | Log | Operation | Plug-Ins

Overlay Text on Output Images

What to write

Text

Image Name

Image Name + Text

Text + Image Name

Text to Write

Note : If the text is too big for the image, it will simply run off the edge.

Vertical Position

Top

Center

Bottom

Horizontal Position

Left

Center

Right

Font

Font Name

Arial

Text Color

Text Size (pixels)

10

Background

Fill Text Background

Background Color

This feature allows you to automatically draw text onto all output images.

Overlay Text on Output Images

Turn this feature on / off.

What to write

ThumbNailer can write text you specify, the file name of the output image, or a combination of the two.

Text

Write the text that you specify in the Text control on the image.

Image Name

Write the image name on the image

Image Name + Text

Write the image name and then the text you specify, no space between them, on the image.

Text + Image Name

Write the text you specify and then the image name, no space between them, on the image.

Text

The text you specify.

Vertical Position / Horizontal Position

Choose where you want the text to go. If text does not fit, it will run off the edge.

Font Name

Choose from the fonts installed on your PC.

Text Color

Choose the color that the text is output as.

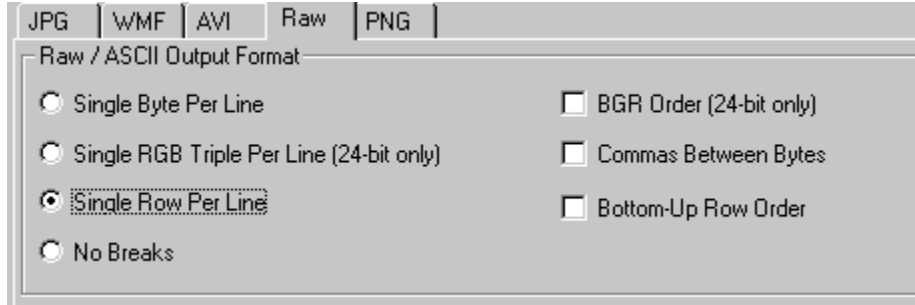
Text Size

Specify the height of the text, in pixels.

Background

ThumbNailer can fill the area behind the your text, to make reading easier; choose a color.

Raw



ThumbNailer can output images to text files as raw ASCII values, formatted according to the styles you set.

If you specify an 8-bit format, the palette is written to the start of the file as a set of 256 RGB triples. The palette will always be written as a 256 RGB triples, each on a single line :

```
123, 42, 43
33, 33, 55
77, 12, 77
```

Single Byte Per Line

One output Byte is written per line.

Single RGB Triple Per Line

The three values that make up an RGB triple are written, one per line :

```
123, 44, 221
```

Single Row Per Line

An entire row of pixels are written on a single line

No Breaks

The values are written without line breaks

BGR Order

RGB Triples are written in BGR order

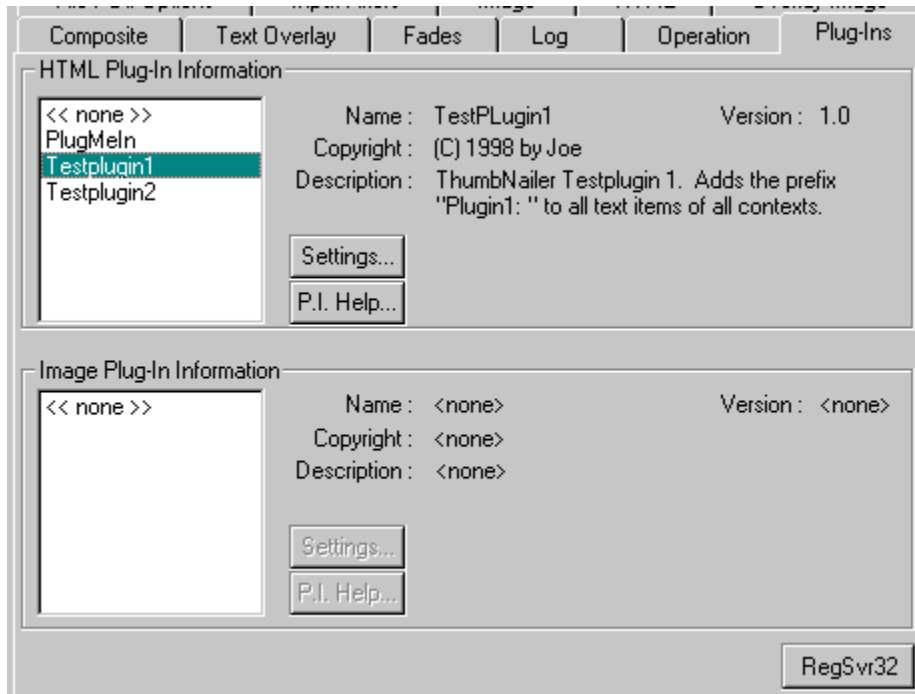
Commas Between Bytes

A comma (“,”) is placed after each number, except at the end of a line. Note that this has no effect if there is only one byte per line.

Bottom-up Row Order

Rows are written in reverse order (bottom image row is the first output row).

Plug-ins



One of the most advanced ThumbNailer options is plug-in support. ThumbNailer supports two types of plug-ins : HTML text and Image Processing. The HTML text plug-in is used to modify the text that is written to various fields in the HTML files that ThumbNailer creates. The Image Processing plug-ins are used to modify the images that ThumbNailer produces. Each of these plug-ins must be an in-process OLE Automation server that supports the appropriate interface for the plug-in type. *For creating your own plug-ins, tutorials and samples are available on the ThumbNailer web site.*

HTML Plug-ins

Even with the ThumbNailer's HTML variables and operators, there are limitations on the kind of text you can have ThumbNailer place into your HTML files. But, when ThumbNailer is using an HTML plug-in, the text added to the files is entirely up to the plug-in. For example, a plug-in could be written to scan a database looking for information about a specific image, format that text then send it back to ThumbNailer for insertion into the HTML files. This can extend the HTML capabilities of ThumbNailer far beyond variables and static text.

Image Processing Plug-ins

ThumbNailer has many image enhancement functions built-in : sharpening, contrast, LUT, overlay, etc.. These functions are useful, but they are hard-coded into ThumbNailer. If you don't like the built-in sharpening function, what can you do ? You could try to get the sharpening function in ThumbNailer changed (not likely), you could import all of your images, one-by-one, into another image processing program, like PhotoShop (no fun), or you could use a ThumbNailer Image Processing plug-in that someone else has written that does a better job (in your opinion, of course) at sharpening.

ThumbNailer allows I.P. (Image Processing) plug-ins to modify the current image at many places in the main processing loop. The possibilities are (almost) infinite. Also, because the IP plug-in has access to the pixels in image, it could potentially save the image in a format that ThumbNailer does not even support.

For programmers, see the ThumbNailer home page for plug-in tutorials and sample code, in both Visual Basic and Visual C++ / ATL.

Plugins Folder

The plug-ins listed in the HTML Plug-In Information and Image Plug-in Information sections of the Plug-in dialog are those which are located in the Thumbnailer Plugins folder (this must be a sub-folder of the folder where Thumb5.exe lives) and which respond correctly to Thumbnailer's attempts to create them. No other plug-ins will work.

When you get a new plug-in, you should register it. VB users should be familiar with registering OLE/COM components. For everyone else, just use the RegSvr32 button on the Plug-ins dialog.

Note : Image Processing plug-ins must reside on the same machine that Thumb5.exe is on. If the plug-in is on a different machine, the result will be a crash of some kind, probably on the machine which is hosting the plug-in, possibly on the Thumb5.exe machine, as well.

Plug-ins lists

This is a list of plug-ins in the Plugins folder which implement the necessary interfaces for either HTML or IP plug-ins. Select the plug-in you want to use, or <<none>> .

Settings

If a plug-in supports a settings dialog, this button will be enabled.

Help

If a plug-in supports help, this button will be enabled.

RegSvr32

Plug-ins, like all other OLE Automation components, must be registered on your computer. The usual way to do this is with a program called RegSvr32. This button allows you to select a plug-in DLL for registration.

