PhotoLab Version 1.0

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PhotoLab is shareware, and while it is sincerely hoped that you support the shareware concept, this program contains no "crippled" features (ones that operate only when you register your copy of the program), nor does it contain any annoying reminders asking you to register your copy (other than this one). To become a registered user, please see the "PhotoLab Registration" topic below.

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Using PhotoLab

PhotoLab is an image processing system that allows you to view and modify scanned or digitized images on your PC. The program includes such features as: crop, rotate, mirror, flip, negative, color/brightness/contrast adjust, resize, and resample, as well as a variety of effect filters. HP ScanJet IIc scanner support is also included.

PhotoLab is designed for use only on Windows 3.1 systems equipped with 256 color or higher video capabilities. Specifically, the program operates on 8 bit (256 color), 16 bit (32,768 color), and 24 bit (16.7 million color) video systems.

PhotoLab processes the TIFF, GIF, BMP and DIB file formats. Support for other file formats will follow based upon demand.

If you have an HP ScanJet IIc color scanner, images can be scanned as long as the scanner device driver provided with your scanner has been loaded in your CONFIG.SYS file. See your scanner documentation for information about installing this driver.

In order to allow processing of 24 bit images on 256 color displays, such images are dithered (reduced) to 256 colors **on the display only**, causing the images to appear somewhat grainy. This process does **not** affect the actual image, only the screen representation of the image.

Some **PhotoLab** operations, such as resampling and filtering, can only be performed on 24 bit images. To use these operations on a non-24 bit image, first convert the image to RGB True Color.

File Menu Commands

Open...
Scan...
Save
[Save As...](Save%20As...)
Revert
Information...
Preferences
[Exit PhotoLab](Exit%20PhotoLab)

Open... Command

This menu command allows you to open an image saved on disk. The image file formats supported by **PhotoLab** are TIFF, GIF, BMP, and DIB.

Scan... Command

If you have an HP ScanJet IIc color scanner, images can be scanned as long as the scanner device driver provided with your scanner has been loaded in your CONFIG.SYS file. See your scanner documentation for information about installing this driver.

Save Command

This command saves the current image to disk.

See Also:
Preferences

Save As... Command

This command allows you to save the current image under a new file name and file format. For 1, 4, and 8 bit images, the available formats are TIFF, GIF, BMP, and DIB. For 24 bit images, the options are TIFF, BMP, and DIB.

See Also:
Preferences

Revert Command

This command reloads the image from the last saved copy on disk, effectively undoing all changes made to an image since the last time the image was saved.

See Also:
Undo

Information... Command

This command displays the following information about the current image: the width and height of the image, the number of bits per pixel in the image, the resolution of the image in dots per inch, the size of the image, and the number of unique colors in the image.

Preferences Command

When the Compress TIFFs option is turned on, any TIFF file that **PhotoLab** writes will be compressed to minimize storage requirements. Bilevel images are Huffman compressed. All other image types are LZW compressed. When this option is off, uncompressed files are written.

When the Interlace GIFs option is turned on, any GIF file that **PhotoLab** writes will be interlaced. This means that the rows of the image are written to the file in 4 separate passes, making the file better suited for use with on-line viewers. When turned off, the file is written normally.

See Also:
Save, Save As...

Exit PhotoLab Command

This command shuts down the **PhotoLab** application.

Edit Menu Commands

[Undo](#)
[Copy Selection](#)
[Crop Selection](#)
[Select Area](#)

Undo Command

Whenever a change is made to an image, **PhotoLab** saves a backup copy of the image to disk. The Undo command causes this backup copy to be reloaded, effectively undoing the last change made to the image.

See Also:
Revert

Copy Selection Command

This command causes the portion of the image within the selection rectangle to be copied to the clipboard in Windows DIB form for importation into other graphics programs.

See Also:
Select Area

Crop Selection Command

This command causes the portion of the image outside the selection rectangle to be removed, leaving only the portion within the selection rectangle.

See Also:
Select Area

Select Area Command

When this option is selected, the cursor becomes a cross-hair, allowing you to select a rectangular portion of the image with the mouse. The coordinates and size of the rectangle will be displayed in the title bar of the **PhotoLab** window. The selection area may be copied to the clipboard or cropped.

See Also:
Copy Selection, Crop Selection

Zoom Menu Commands

Selecting a zoom value of X% from the Zoom menu causes the display of the image to be contracted or expanded to X% of its original width and height, making it easier for you to work with very small or very large images. Note that the image itself is not modified, merely the screen representation of the image.

The image can also be zoomed using the mouse. Point the mouse at the portion of the image to be zoomed and press the left mouse button. The image will be zoomed to the next highest value in the zoom menu. Use the right mouse button to decrease the zoom value. Double-click either button to return to a zoom level of 100%. Note that the mouse cannot be used to zoom an image if the Select Area option is turned on.

Image Menu Commands

[Rotate Left](#)
[Rotate Right](#)
[Mirror](#)
[Flip](#)
[Negative](#)
[Palette...](#)
[Adjust...](#)
[Resize...](#)
[Resample...](#)
[Filter...](#)
[Convert To](#)
[Wallpaper](#)

Rotate Left Command

This command turns the image counter-clockwise 90 degrees.

Rotate Right Command

This command turns the image clockwise 90 degrees.

Mirror Command

This command reverses the image horizontally.

Flip Command

This command reverses the image vertically.

Negative Command

This option causes all the colors in an image to be inverted.

Palette... Command

This option displays the color palette of the current image. If the image has no color palette (i.e. it is a 24 bit, 16.7 million color image), then the default palette is displayed. The default palette is used to display 24 bit images on 256 color systems.

Adjust... Command

This command allows you to adjust the amount of red, green, and blue in an image as well as the overall brightness and contrast of the image. This command is not available for bilevel images.

Resize... Command

This option is used to make an image smaller or larger.

See Also:
[Resample](#)

Resample... Command

Try using the Resample command in place of the Resize command when making a 24 bit per pixel image larger. Resampling causes new pixel values to be interpolated from existing pixels, reducing the amount of "jaggies." Note that this option is not available for 1, 4, and 8 bit per pixel images.

See Also:
Resize

Filter... Command

This function is used to apply a photographic effect to a 24 bit per pixel image. Several filters are packaged with **PhotoLab**, such as Blur, Sharpen, Emboss, etc., and you can create any number of new filters for your own use.

The filter works by taking the 5x5 filter matrix and overlaying it on top of the image. The color of the pixel beneath each cell is multiplied by the value in the cell. Then the results of all 25 cells are added together and divided by the filter's factor. Finally, the filter's bias is added in. This value becomes the color of the pixel in the centermost cell. The process is repeated for every pixel in the image, left to right, top to bottom.

Note that **PhotoLab** provides a suggested value for the filter factor, although you are free to use any non-zero value.

Convert To Command

This option allows you to convert your image to one of the following types:

RGB True Color - Up to 16.7 million colors
Grayscale (256) - Uses a 256 level gray palette
256 Color (Adaptive) - Uses an optimized palette for best results
256 Color (884) - Uses a fixed 884 palette
256 Color (775) - Uses a fixed 775 palette
256 Color (666) - Uses a fixed 666 palette
256 Color - Uses a high speed/low quality process
16 Color - Uses the VGA palette
Grayscale (16) - Uses a 16 level gray palette
Black & White - Uses a black and white palette

Note:
PhotoLab uses error-diffusion dithering to help preserve image appearance whenever the color depth is reduced.

Wallpaper Command

The current image can be made the Windows wallpaper by selecting either the Tile or Center command. Wallpapering can be turned off via the None command. **PhotoLab** writes the wallpaper image to a file called WALLPAPR.BMP in the Windows directory.

Note:
Be careful of wallpapering a 24 bit image on a 256 color display - this will work, but Windows converts the image to 256 colors using the default Windows palette and this can take quite a long time. Use **PhotoLab** to convert the image to 256 colors first for best results.

PhotoLab Registration

The registration fee for **PhotoLab** is **$30**. When you register, you will receive an authorized copy of **PhotoLab** on diskette, and will be entitled to free upgrades and fixes as they are available. Send check or money order (US funds only, please) to the author at the address below:

Daniel S. Baker
5993 Slippery Rock Drive
Columbus, Ohio 43229

Feel free to send questions, enhancement requests, and bug reports to me on CompuServe:
71551,2300

TIFF

PhotoLab reads and writes TIFF (Tagged Image File Format) files of the following types:

1 Bit (Bilevel) Uncompressed and Huffman Compressed
4 Bit (Palette Color) Uncompressed and LZW Compressed
8 Bit (Palette Color) Uncompressed and LZW Compressed
24 Bit (RGB) Uncompressed and LZW Compressed

PhotoLab also reads TIFF files of the following type:

8 Bit (Grayscale) Uncompressed and LZW Compressed

Note:
At this time, **PhotoLab** will read only TIFF files saved in "II" or "little-endian" byte order, and thus may refuse to process otherwise valid TIFF files produced on certain computers (e.g. the Macintosh). This limitation will be remedied in a subsequent release.

GIF

PhotoLab reads and writes GIF (Graphics Interchange Format) files composed of 2 through 256 colors, versions 87a and 89a. **PhotoLab** always writes GIF files in 87a format, since none of the 89a extensions are used.

Note:
Although the GIF specification allows multiple images per GIF file, **PhotoLab** will process only the first image in such a file.

BMP

PhotoLab reads and writes Windows 3.0 BMP (Bitmap) files of the following types:

1 Bit (2 Colors)
4 Bit (16 Colors)
8 Bit   (256 Colors)
24 Bit (RGB 16.7 Million Colors)

DIB

PhotoLab reads and writes DIB (Device Independent Bitmap) files of the following types:

1 Bit Per Pixel (2 Colors)
4 Bits Per Pixel (16 Colors)
8 Bits Per Pixel (256 Colors)
24 Bit (RGB 16.7 Million Colors)