PhotoLab Version 1.7

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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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PhotoLab Overview

PhotoLab is an image processing tool that allows you to view and modify digitized images on your PC. The program includes features such as print, zoom, rotate, mirror, flip, crop, negative image, resize, and resample, a variety of effect filters, image combination and type conversion, adjustment of image color, brightness, contrast, and saturation, as well as HP ScanJet IIc scanner support. The program reads and writes BMP, DIB, GIF, TGA, and TIFF format images.

PhotoLab is designed for use on Windows 3.1 systems. A video configuration capable of 256 or more colors is recommended.

If you have an HP ScanJet IIc color scanner, images can be scanned by **PhotoLab**. The driver provided with your scanner must be loaded via the 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, filtering for example, can only be performed on 24 bit (i.e. RGB True-Color) images. To apply these operations to another type of image, first convert the image to RGB True-Color.

File Menu Commands

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[Scan...](#)
[Save](#)
[Save As...](#)
[Revert](#)
[Information...](#)
[Print...](#)
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Open... Command

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

Scan... Command

If you have an HP ScanJet IIc color scanner, images can be scanned by **PhotoLab**. The driver provided with your scanner must be loaded via the 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 and 4 bit images, the available options are BMP, DIB, GIF, and TIFF. For 8 bit images, the available formats are BMP, DIB, GIF, TGA, and TIFF. For 24 bit images, the options are BMP, DIB, TGA, and TIFF.

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.

Print... Command

This command sends the current image to the selected printer.

PhotoLab adds one control to the standard Windows print dialog box, a "Stretch to Page" checkbox. If the "Stretch to Page" checkbox is selected, **PhotoLab** will stretch the image to the maximum width and height of the page while maintaining the aspect ratio of the image. If the "Stretch to Page" checkbox is not selected, the image will be printed using the current resolution (dots-per-inch) settings of the image.

See Also:
Resolution... Command

Print Setup... Command

This option allows you to select and configure the printer to receive **PhotoLab** print output.

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 Command

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

Edit Menu Commands

[Undo](#)
[Copy](#)
[Paste](#)
[Select](#)

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 Command

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

See Also:
Select

Paste Command

This command causes the DIB image stored in the clipboard to be imported into **PhotoLab**, becoming the current image.

Select Command

When this option is on, 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 portion of the image within the selection rectangle may be copied to the clipboard or cropped.

See Also:
Copy, Crop

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 Edit menu's Select option is turned on.

Image Menu Commands

[Rotate Left](#)
[Rotate Right](#)
[Mirror](#)
[Flip](#)
[Crop](#)
[Negative](#)
[Palette...](#)
[Resolution...](#)
[Adjust...](#)
[Resize...](#)
[Resample...](#)
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[Combine...](#)
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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.

Crop 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

Negative Command

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

Palette... Command

This option displays the color palette of a 4 or 8 bit image.

Resolution... Command

This command allows you to change the horizontal and vertical resolution (dots-per-inch) settings of the current image. These settings are used for printing purposes only, and do *not* affect the way **PhotoLab** displays the image.

Note that files saved in GIF or TGA form do not retain their resolution settings. **PhotoLab** uses a default value of 96 dots-per-inch for both horizontal and vertical resolution for these files.

Adjust... Command

This command allows you to adjust the amount of red, green, and blue in an image as well as the overall brightness, contrast, and color saturation 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, RGB 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.

Combine... Command

This command allows you to combine the current image with an image saved in the Windows clipboard using one of several color computations. This command is available if (1) the current image is a 24 bit (RGB True-Color) image, and, (2) the clipboard contains a DIB image of any type.

To use this function, open an image and choose the Copy command to save the image to the clipboard. Then, open a second image. If the second image is not a 24 bit image, convert the image to RGB True-Color. The Combine... option will now be available.

The colors of the image displayed in the **PhotoLab** window and the image stored in the clipboard are combined using the computation selected from the Combine dialog box.

Convert To... Command

This option allows you to convert your image to a new type, either RGB True-Color, 256 Color, 256 Gray, 16 Color, 16 Gray, or Black and White.

If the Adaptive palette type is selected, the palette for the new image is generated so as to reflect as closely as possible the colors in the original image.

The Adaptive-Windows palette type also generates an optimized palette, but reserves 20 colors for use by Windows in order to improve the appearance of the image when displayed on 256 color systems.

The 8R-8G-4B, 7R-7G-5B, and 6R-6G-6B fixed palette types are useful for creating an image that must share a color palette with other images for simultaneous display on 256 color systems.

The VGA palette type contains the 16 VGA colors. Use this option only if the image must be displayable on standard VGA systems.

If the Error Diffusion Dither option is checked, the image will be dithered using a Floyd-Steinberg error diffusion dithering process. Otherwise, a nearest color translation is applied.

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 works, 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 money order or check (either $30 US if drawn on a US bank, or the current equivalent of $30 US in your native currency if drawn on a non-US bank) to the author at the address below:

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

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

You are encouraged to distribute this program for non-commercial use if distribution is intact, unmodified, en masse, and as long as no fee is charged for such distribution (with the exception of nominal and customary distribution fees). If at all possible, please distribute the original ZIP file, which should include the files READ.ME, PHOTOLAB.EXE, PHOTOLAB.HLP, and PHOTOLAB.FLT.

TIFF

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

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

PhotoLab also reads TIFF files of the following type:

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

TGA

PhotoLab reads and writes TGA (Targa) files of the following types:

8 Bits Per Pixel (256 Colors) Uncompressed
24 Bits Per Pixel (RGB 16.7 Million Colors) Uncompressed

PhotoLab also reads TGA files of the following type:

16 Bits Per Pixel (32,768 Colors) Uncompressed