

# LView 1.6

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# File Menu

In the File Menu you will find commands to open/save an image file, possibly converting its format.

Open

Save

Save as

Delete

Exit

# File/Open command

This command will open a dialog window to specify the file name and directory for the image to be loaded. Loading attributes comply with the current setup. See the [Options Menu](#) for information.

# File/Save command

This command saves the displayed image using the original file name. Attributes comply with the current setup. See the [Options Menu](#) for information.

# File/Save as command

This command will open a dialog window to specify the new file name to which the image is to be saved. Image saving attributes comply with to the current setup. See the [Options Menu](#) for information.

# **File/Delete command**

This command will delete the last filename successfully opened or saved. You will be prompted for a confirmation, before deletion takes place.

# **File/Exit command**

This command will end LView 1.6. If an image is being loaded or saved when you select this command, LView will prompt you for a confirmation before exiting.

# Edit Menu

In the Edit Menu you will find commands to access the clipboard, and change image size, position and other attributes.

Clipboard commands:

Cut  
Copy  
Paste  
Delete

Size & Position commands

Crop  
Resize  
Flip Horizontal  
Flip Vertical  
Rotate ClockWise  
Rot CounterClkWise

Image attribute commands.

HSV Adjustment  
Color Balance  
Contrast Enhancement  
Gamma Correction



# Edit/Cut command

Transfers the current image to the clipboard, and erases it from LView's window. This command is useful when Windows is low in memory. If you want to copy the image to the clipboard and retain it in LView, use the Copy command.

If you select this option after defining a rectangular area on the image, LView will copy only the selected rectangular area to the clipboard.

# Edit/Copy command

Copies the current image to the clipboard. This command does not erase the image from LView's window. If Windows is low in memory, try the Cut command.

If you select this option after defining a rectangular area on the image, LView will copy only the selected rectangular area to the clipboard.

# **Edit/Paste command**

Copies an image from the clipboard to LView's window.

# **Edit/Delete command**

Deletes the image from LView's window. This is useful to free memory without exiting LView.

# Edit/Crop command

Crops the image to the defined rectangle. Only the region inside the rectangle is kept.

To define a rectangle, click the left mouse button, and drag the mouse without releasing it. When you are done, release the button. While defining the rectangle, its dimensions will appear in the window's caption bar. If the image is larger than the window, moving the mouse outside the window will make it scroll. Clicking the right mouse button while scrolling (without releasing the left button) will provoke a "fast scroll" to the end of the image.

Cropping images is specially useful before converting GIF files to JPEG format. Always crop the border around the image, to improve both compression quality and ratio.

# **Edit/Flip Horizontal command**

Flips (mirrors) the image horizontally.

# **Edit/Flip Vertical command**

Flips (mirrors) the image vertically.

# **Edit/Rotate ClockWise command**

Rotates the image clockwise, transforming rows into columns and vice-versa.



# **Edit/Rot CounterClkWise command**

Rotates the image counter clockwise, transforming rows into columns and vice-versa.

# Edit/Resize dialog

Resizes the image to a new width and height.

You will set the new width and height in a dialog, where you can choose from a few predefined dimensions or define custom values for width and height. The "Fit to desktop" option will resize the image to the maximum dimensions the current graphics mode can exhibit without using scrollbars.

In the Resize dialog, keeping the "Preserve aspect ratio" box checked will make LView recalculate the specified width or height to preserve the image aspect ratio. The image's new width and height will not exceed the ones you choose. This will work for the predefined dimensions as well.

# Edit/HSV Adjustment command

This command will open a dialog window with scrollbars to edit HSV values for the image displayed. Moving the scrollbars will change each attribute. Lower/Upper values will Decrease/Increase the global amount of (H)ue, (S)aturation and (V)alue for the image.

During a display/edit session of an 8-bit image, moving the scrollbars will automatically alter the image. For 24-bit images, you will have to set a new value for each component, and then click on the "EXEC" button for the changes to effect. As HSV editing is slower (but still feasible) for 24-bit images, making all the desired changes in one pass will cut down editing time.

All changes are performed on the original image. If you are satisfied with an HSV setting, click on the "UPDT" button, and the original image are updated to the current editing setting. If after further editing you click on the "CANCEL" button, you will exit the dialog, and the image will be reset to the last update saved. Click on "OK" to update the image to the current setting and exit the dialog.

Prop Sat and Prop Val:

These are two check boxes in the HSV dialog. When checked, they will make LView alter Saturation and Value attributes "proportionally". In short, this means that when you increase Saturation or Value attributes for the image, pixels low on the edited attribute will be more increased than pixels high on it. Conversely, when you decrease the attribute value for the image, pixels high on the attribute will be more decreased than pictures low on it. If you uncheck these boxes, Saturation/Value offsets apply equally to all pixels. Checking is useful, for instance, to brighten up the darker pixels of an image without making it's brighter pixels too bright. Note that extremely dark pixels may not brighten up consistently.

# **Edit/Contrast Enhancement command**

This command will open a dialog for the image. Increasing/Decreasing the Contrast value will increase/decrease the image's Contrast.

NOTE: I am still looking for a better algorithm for Contrast editing. suggestions are welcome!

# **Edit/Color Balance command**

This command will open a dialog window to edit the Red, Green and Blue attributes of the image. Increasing/Decreasing any of these attributes will increase/decrease the corresponding value for each pixel on the image. If you are viewing a 24-bit image, set new offset values for Red, Green and Blue and then press the "Exec" button to execute your choices. On a 256 color display, editions will be executed as soon as defined.

# Edit/Gamma Correction

This command will open a dialog window to edit the gamma (brightness) value for the Red, Green and Blue attributes of the image. Increasing/Decreasing any of these attributes will increase/decrease the corresponding gamma value for each pixel on the image. Selecting "Lock RGB" will make LView apply the same gamma to Red, Green and Blue components. Unchecking "Lock RGB" will allow for individual gamma settings for Red, Green and Blue. If you are viewing a 24-bit image, and "Lock RGB" is not selected, set new gamma values for Red, Green and Blue and then press the "Exec" button to execute your choices. On a 256 color display, or if "Lock RGB" is unchecked, editions will be executed as soon as defined.

# Options Menu

In the Options Menu you will find commands to configure several aspects of LView's behavior. Your execution options can be saved, restored or reset default values.

8-bit Bitmap

Write 1&4 bit Bitmaps

Auto-resize

Show Scroll Bars

Drop to

JPEG Options

Slideshow Options

Load all Options

Save all Options

Default Options

# Options/8-bit Bitmap command

Regardless of their file format, images are translated into Windows Device Independent (DIB) format when loaded. LView can work with 8 and 24 DIBs. Set this option to make LView use an 8 bit DIB even when loading a 24 bit image. If your video card is limited to 256 colors, you can still view 24 bit images using 8 bit Bitmaps. When reading JPEG files (stored with 24-bit per pixel color information), LView will quantize the image according to the options you set in the JPEG Options dialog.

This option will be automatically selected if LView senses that your display can handle at most 8-bit pixel resolution (with palette references). If you then uncheck this option, LView will warn you that images will not be displayed correctly. Nevertheless, you should uncheck this option to perform format conversions, or image editions. This way, even if the image you see on the screen seems to have the "wrong" colors, image quality loss will be reduced in the process of saving edited/converted images.



# Options/Show Scroll Bars command

Turning this option ON will make LView exhibit scrollbars whenever the image is larger than the IViews's client area.

Turning this option OFF will prevent LView from exhibiting scrollbars whenever the image is larger than the IViews's client area. Scrolling will still be possible by clicking the left mouse button and dragging it out of the client area.

# Options/Auto-resize command

Turning this option ON will make LView try to resize it's window to the size of the image being displayed. If the image doesn't fit the maximum window size of your desktop, scrollbars may be added to LView's window. See [Show Scroll Bars](#) command for more details.

Turning this option OFF will prevent LView from changing its window size.

# Options/Drop to command

LView can automatically load a group of files, either to show them as a slideshow, or to compress them in batch to JPEG format. Use Window's File Manager to select the files you wish to view or compress, and then drag them to LView's window. If you set this option to "Slideshow", LView will load the files and show them successively. If you set this option to "Compress", the files will be compressed using the current JPEG Options . To interrupt batch compression, or slideshow viewing, click the right mouse button anywhere in LView's client area, or just select the Menu Bar option.

# Options/Slideshow Options dialog

In this dialog you can customize LView's Slideshow behavior. Pictures can be switched "automatic"ally (timed), or "manual"ly.

If you choose "automatic", LView will start to load the next Slide after the specified delay time.

If you choose "manual", LView will wait until you click the left mouse button anywhere inside LView's client area to begin loading the next Slide

If you check the "Cycle Slideshow" checkbox, LView will reload the first Slide after you view the last one, and restart the slideshow.

To interrupt the slideshow, click the right mouse button anywhere inside LView's client area. You will be prompted to confirm that you want to stop the slideshow.

# Options/Load all Options command

Clicking on this menu item will make LView reload all options from disk. Use this command if you set options for a particular image, and want to reset your configuration without having to reset each altered option individually.

# Options/Save all Options command

Most of the options set by menus and/or dialogs can be altered and the new setup can be saved. Use this menu item to save your customized LView setup.

# Options/Default Options command

This menu item will restore LView's "factory defaults".

# Options/Write 1&4 bit Bitmaps command

LView can process images of less than 16 colors. If you turn this option on, When you save a file to either Windows Bitmap or OS/2 Bitmap format, LView will, whenever possible, create 1 or 4 bit Bitmap files. If you turn this option off, only 8 or 24 bit Bitmap files will be written.



# Options/JPEG Options dialog

In this dialog you will customize JPEG decompression (for loading images) and compression (for saving images and batch compression) parameters.

## Decompression setup

If you enable the 8-bit Bitmap menu item, JPEG images will be quantized for display. You should not enable this option for batch compressions. You can set the number of quantizing passes to one or two. You can also turn Floyd-Steinberg dithering on/off for quantized images. For quantized images, the total number of colors in the generated palette is set with NColors. The best results, of course, will be obtained with 256 colors, but you can experiment with fewer colors. Furthermore, if you set NColors to 16 or less, and also set both 8-bit Bitmaps and Write 1&4 bit Bitmaps, saving the image to Windows or OS/2 DIB formats will produce DIBs with fewer bits per pixel, which, besides taking less disk space, can be used as icons. Checking the "Load GrayScale" checkbox will force JPEG images to be loaded without color information (only intensity).

"Load GrayScale" mode provides faster loading of image files, and can be useful for image previewing.

## Compression setup

JPEG compression is "lossy". This means that the image you compress will not exactly match the original image. The "Quality" setting allows you to compromise between file size and compression fidelity. Set larger/smaller values for "Quality" to get larger/smaller files, with better/worse fidelity compared to the original image. In LView, the minimum value allowed for "Quality" is 20, and the maximum 95. When compressing images that have been dithered, increasing the value for "Smooth Factor" will make LView try to reduce image noise. That way you will get a smaller and (generally) better image. "Smooth Factor" may vary from 0 to 100, and usually a value of 20 to 50 will work fine for dithered images. Keep "Smooth Factor" turned off (zeroed) when saving non-dithered images. When checked, the "Entropy Optimization" option will make LView optimize JPEG compression tables, and generate smaller files. It will also marginally slowdown compression. When checked, the "Save GrayScale" option will compress the image in grayscale, regardless of its original color information. Turn this option on to save a grayscale image. **DON'T FORGET TO TURN IT OFF AFTERWARDS.** Sampling factors may be set to h2v2 (the default) or h2v1. Use h2v2 to obtain better compression ratios. h2v1 usually produces better image compression quality, at the expense of generating larger files.

The "Default Setup" button will restore the "factory defaults" for JPEG Options alone.

# Image file formats

In this version (1.6) LView can load and save images in:

JPEG JFIF format: 24 bit image format.

GIF 87a/89a: up to 8 bit image format.

Truevision TARGA: up to 24 bit image format.

Windows or OS/2 DIB format: 1, 4, 8, or 24 bit image format.

Notes:

RLE compressed DIBs are not supported.

In future versions of this product, new file formats may be supported. Also, faster algorithms for loading/saving currently supported formats may be developed.

# More about LView 1.6 ...

I was amazed the first time I saw a JPEG compressed image file. Shortly after that, I decided to do some programming and research on the subject. Well, LView 1.0 was the result of that effort. Subsequent LView versions are based on the feedback I receive from users of previous LView versions.

This viewer was primarily made for my own usage and enjoyment. A goal that was fully achieved. As many people have directly and indirectly contributed to the making of this software, including the Jpeg Independent Group with its excellent work, I decided to make it available to whoever wants to use it.

I have some ideas for the next versions of LView, and I'd also like to read from you, LView users. Not only bug reports, but also comments and suggestions are welcome.

My name is Leonardo Loureiro, and I can be reached at: [mmedia@world.std.com](mailto:mmedia@world.std.com), please mention LView in the subject line of all email messages you send.

Enjoy !

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# Acknowledgements

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