

# LView Pro 1.1

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# File/New

This dialog window prompts for image dimensions, then creates a new image for edition. The new image background is painted with the color defined in the Options/Background Color command.

This command is useful for creating a (blank) image and then defining its contents with the Edit/Add Text command and/or the Edit/Paste command.

# Options/Background Color

This command opens the 24-bit Color Dialog, when the image being edited has 24-bit/pixel color information, or the Palette Entry Color Dialog, when the image being edited has palette based color information. The color you define will be used to paint images created with the File/New command, and to paint image areas after the Edit/Cut or Edit/Delete commands are performed on a Selection area. When the Edit/Redimension command increases the number of columns or rows, the new image area will also be painted with this color.



# File/Open

This dialog window is used to select the filename containing an image to be loaded into LView Pro for viewing/editing. Regardless of the filename extension, LView Pro will examine the file contents and determine the internal file format among the supported Image File Formats.

If loading is successful, the same filename will be used in the File/Save command.



This command is also available at the Tollbar.

# File/Save

Saves the image being edited using the filename obtained in the last File/Open execution. If this filename doesn't exist or is invalid, the command File/Save as will be executed instead.



This command is also available at the Tollbar (click with the RIGHT mouse button!).

# File/Save as

This dialog window obtains the filename where the current image is to be saved. The format may be selected among the supported Image File Formats.



This command is also available at the Tollbar.

# Image File Formats

LView Pro supports the following image file formats:

JPEG - Joint Photographers Expert Group, JFIF

BMP - MS Windows and OS/2 bitmap

TGA - Truevision Targa

GIF - CompuServe's GIF87a and GIF89a

Additional file formats will be added in future versions.

# File/Delete

Issue this command to delete the last filename obtained in the File/Open or File/Save as commands. If deletion is not successful a message is displayed.

# File/Print

This dialog window allows for Printer configuration, followed by image printout. Use the File/Printer Setup and Options/Printer commands to customize other options related to printer output.

# Options/Printer

In this dialog window, you specify:

- Column enlargement/shrinking percentage,
- Row enlargement/shrinking percentage:

Setting these to 100% will produce an image in the actual printer resolution,  
Setting these to different values will alter the aspect ratio on resulting image,  
Values greater than 100% will enlarge the corresponding dimension,  
Values smaller than 100% will shrink the corresponding dimension.

- Fit to printer page

When checked will enlarge/shrink the image to maximize the printed area.

- Center

When checked will center the image printout.

# File/Printer Setup

This dialog window is used for selecting and configuring the target printer. This dialog is also accessible from the File/Print command. Use this command in conjunction with Options/Printer to customize image printout.



# File/Exit

This command ends LView Pro's execution. If the current image has been edited, LView Pro will offer to save it before exiting.

# Edit/Undo

Use this command to undo the last edition made to the current image. When undoing is not possible, this menu item will be dimmed. To free memory allocated to undo buffers use the Options/Interface dialog and disable undo operations.



This command is also available at the Tollbar.

# Edit/Cut

This command cuts (deletes) the image or current selection area and places it in the Clipboard. The format for clipboard image creation is set in the Options/Interface dialog. If a selection area is deleted, the background replacing it is painted using the color selected in Options/Background Color.



This command is also available at the Tollbar.

# Selection Area Operations

Selection Areas are image pieces that can be processed separately from the image being edited. Most commands in the Edit Menu will be performed to the current Selection Area, if one is defined. On the other hand, commands in the Retouch Menu will only be available when no Selection Area is defined.

## Introduction

Selection Area utilization is broad. They can be used to delimit an image area for cropping, to hold an image pasted from the Clipboard, to delimit an area of the editing image to be copied to the Clipboard, to duplicate or move parts of the image being edited and more. In here we will only cover the basic Selection Area operations, since all other operations follow the same principles.

A Selection Area can be in one of two states: DEFINED and DETACHED. An area is said to be DEFINED when it is visually represented by a RED/WHITE frame. The term DEFINED simply means that the user has delimited the area rectangle. When a Selection Area becomes DETACHED, its frame is changed to BLUE/WHITE colors. A DETACHED Selection Area already contains its own image information, independent of the image being edited.

## Creating a DEFINED Selection Area

Click either the left or right mouse button anywhere on the image being edited, then (without releasing the mouse button) drag the mouse pointer. A Selection Area frame will be displayed delimiting the rectangular area defined by the point where you first clicked the mouse button and the current position mouse pointer position. There is no required order for Selection Area definition, the point where you initially click the mouse button may end up being any of the four corners defining the area, depending on the point where the mouse button is released. To finish Selection Area definition, simply release the mouse button in the position of your choice.

The DEFINED Selection Area frame is equipped with four handles, positioned at each of its corners. The handles are small squares exterior to the frame rectangle. By clicking either the left or right mouse button on one of these handles, the Selection Area frame may be resized for fine positioning. A DEFINED Selection Area may be moved by clicking either the left or right mouse button over one of its frame segments and dragging the mouse pointer.

Once a DEFINED Selection Area is properly positioned and sized, it is ready for being DETACHED.

## Creating a DETACHED Selection Area

While many commands operate in the same fashion with DEFINED and DETACHED areas, the process of detaching a DEFINED area and creating a DETACHED one is of interest. A DETACHED Selection Area is created from a DEFINED one by clicking a mouse button anywhere inside the area frame. This operation will produce different results depending on the mouse button utilized. If the LEFT mouse button is used, the original image area contained inside the area frame is erased and painted with the color defined in

Options/Background Color. If the RIGHT mouse button is used, the original image is left unchanged, and the Selection Area will hold a copy of it.

If you detach a DEFINED Selection Area using the LEFT mouse button by mistake, the operation may be undone using Edit/Undo, if Options/Enable Undo is checked.

## **Moving a DETACHED Selection Area**

Selection areas do not have frame handles, and cannot be resized. They can be moved by clicking either the left or right mouse button anywhere inside the area frame (or on the area frame) and dragging the mouse pointer. Release the mouse button to finish moving the DETACHED Selection Area.

## **Applying a DETACHED Selection Area**

A DETACHED Selection Area may be applied (tiled) anywhere over the image being edited. The original contents of the image will be overwritten by the contents of the Selection Area, and the Selection Area will be destroyed.

If you apply a DETACHED Selection Area by mistake, the operation may be undone by Edit/Undo, if Options/Enable Undo is enabled.

## **Undefined a Selection Area**

DEFINED Selection Areas may be undefined simply by clicking either the left or right mouse button outside the area frame. If the area frame covers the entire image, use Edit/Undefined.

DETACHED Selection Areas may be undefined by using Edit/Cut, Edit/Delete or Edit/Undefined.

## **Additional Topics on Selection Areas**

The thickness of Selection Area frames can be adjusted in the Options/Interface dialog window.

Selection Area frames are animated, by default, for improved visibility over color images. Sometimes the animation process makes it difficult to visualize the mouse pointer, when it is positioned over or near a frame segment. This effect is more easily noticed when using a slower graphics card. For that reason, the animation may be optionally turned off in the Options/Interface dialog window.

# Edit/Copy

This command places a copy of the image or selection area in the Clipboard. The original image or area is left unchanged. The Clipboard image format is set in the [Options/Interface](#) dialog.



This command is also available at the Tollbar.

# Edit/Paste

This command is enabled whenever DIB or DDB data is present in the Clipboard. For an explanation about these formats see the [Options/Interface](#) help topic.

The Paste operation is performed differently depending on the current state of LView Pro:

- If no image is currently loaded: The pasted image becomes the editing image,
- If there is an image being edited, and no selection area is defined: The pasted image is placed in a detached selection area,
- If there is an image being edited and a selection area is defined: The pasted image replaces the selection area contents, maintaining the selection area dimensions.

For more information see the [Selection Area](#) help topic.



This command is also available at the Tollbar.

# Edit/Delete

This command deletes the image being edited (not the file!) or the current selection area. If a selection area is deleted, the background replacing it is painted using the color set in the Options/Background Color dialog.



# Edit/Capture

This command allows capturing elements from the desktop into LView Pro's window. Capturing modes are:

- Window: Use the left mouse button to select a window. The contents of the selected window (including caption and frame) are captured.
- Client Area: Use the left mouse button to select a window. The client area of the selected window (excluding caption and frame) are captured.
- Desktop Area: Click the left mouse button to determine a corner of an area on the desktop, drag the mouse pointer to define a rectangular area, and release the button when done. The area is captured.
- Desktop: The whole desktop is captured.

If no image is currently loaded, the captured image will become the new editing image.

If an image is already loaded, the captured image will become a Selection Area.

If an image is already loaded and a Selection Area is defined, the captured image replaces the selection area contents, maintaining the area dimensions.

# Edit/Resize

This dialog window allows to change the dimensions of the image being edited, or Selection Area. Choose among the pre-defined dimensions, or enter custom values for Columns and/or Rows. Special options in this dialog are:

- Fit to desktop: Resizes the image to occupy the maximum desktop area. Notice that the image required scrollbars to be viewed, since window caption, menu and frame are not counted. The image will be fully visible (without being resized) in Full Screen Mode.
- Fit to max client: Resizes the image to occupy the maximum client area size. The image will be fully visible without the need of scrollbars.
- Preserve aspect ratio: When checked, will alter the selected Column or Row value to keep the original image aspect ratio



This command is also available at the Tollbar.

# Options/Full Screen

Displays the image centered in the screen. The screen background is set to black. If needed, the image is shrunk to fit completely in the screen. This mode can be automatically set when displaying images in a Slideshow.

To exit this mode, click the left mouse button, or press the ESC key.



This command is also available at the Toolbar.

# Options/Slideshow

LView Pro may load and display a sequence of image files. This operation is called a slide show. There are two ways to select the files for slide show exhibition:

- Using Windows' File Manager to perform a Multiple File Selection and setting the "Drag&Drop Destination" to slide show in Options/Interface.
- Using File/Multiple Open.

This dialog window customizes the slide show behavior. Options are:

- Cycle slides: When checked, causes the first file to be reloaded after the last one is exhibited and continuously cycle on the file selection.
- View full screen: When checked, causes images to be displayed in Full Screen mode.
- Interactive after mouse click: If selected causes an image will be displayed until the right mouse button is clicked in LView Pro's client area (or on the desktop if in Full Screen mode).
- Automatic after X seconds: If selected causes the next image to be loaded after the desired number of seconds.

To abort the slide show: If not in Full Screen mode, click on the menu bar, if in Full Screen mode, click the left mouse button.

# Edit/Redimension

This dialog window is similar to the Edit/Resize dialog. Redimension will not change the image's aspect ratio, but add/take columns and rows from/to the image being edited or Selection Area.

# Edit/Crop

This command is only available when a Selection Area is defined. It replaces the current image by the contents of that area.



This command is also available at the Tollbar.

# Edit/Undefined

This command undefines the current Selection Area.

# Edit/Apply

This command is available when the Selection Area is detached. It tiles the selection area over the editing image at its current position.



# Edit/Add Text

This dialog is window where you define a string of text to be added to the editing image. Text is always added to a detached Selection Area, that can be moved, applied or deleted after closing this dialog. If no area is defined, this command will create a default Selection Area in the upper left corner of the editing image. In the dialog you can define characteristics for the text to be added, such as color, background color, orientation, positioning, font, and text background transparency.

You can also move and resize the selected area while defining the text to be added, by using the "Modify Selection Area" scrollbars.



This command is also available at the Tollbar.

# Edit/Flip Horizontal

Flips (mirrors) the image horizontally. If a selection area is defined, only that area will be flipped.



This command is also available at the Tollbar.

# Edit/Flip Vertical

Flips (mirrors) the image vertically. If a selection area is defined, only that area will be flipped.



This command is also available at the Tollbar.

# Edit/Rotate Left

Rotates the image counter clockwise, transforming rows into columns and vice-versa. If a selection area is defined, only that area will be rotated.



This command is also available at the Tollbar.

# Edit/Rotate Right

Rotates the image clockwise, transforming rows into columns and vice-versa. If a selection area is defined, only that area will be rotated.



This command is also available at the Tollbar.

# Multiple File Selections

To activate multiple file operations, Slideshow, Contact Sheet, Batch Compression and Batch printing, the user must begin by defining the list of files to be processed in the operation.

The list of files may be defined by either using the [File/Multiple Open](#) dialog, or by using Window's File Manager together with drag&drop operations. This help topic covers the latter option, for information about the former see [File/Multiple Open](#).

In order to perform a multiple file selection, follow these steps:

- Open File Manager, and open/select a directory window containing the files. If files are present in more than one directory, use the (File Manager's) File/Search command to gather all files in a single window,
- Click the left mouse button on the first file you want to select, release the mouse button,
- Press the CONTROL key, and WITHOUT releasing it, click with the left mouse button on each other file you want to add to the selection. Each file you click on should become highlighted to indicate that was added to the selection. All previously selected files should remain highlighted as subsequent files are added to the selection,
- After you have clicked on the last file, release the CONTROL key,
- Now, click the left mouse button on ANY of the selected files and, WITHOUT releasing the mouse button, drag the mouse pointer over LView Pro's window (or icon, if LView Pro is minimized),
- Once the mouse pointer is positioned over LView Pro, release the mouse button.

The files you selected will be processed by the Drag&Drop Destination function currently set in the [Options/Interface](#) dialog.

# Tool Bar Command List

Each tool bar icon-button selects a command also available at LView Pro's menus. All icon-buttons may be utilized by clicking the LEFT mouse button and then releasing it while the mouse pointer is positioned over that icon-button. Some icon-buttons execute a different command if clicked on with the RIGHT mouse button. The correspondence between tool bar icon-buttons and menu commands is described below:



This is the Tools button. It is exhibited at LView Pro's window caption when the tool bar is available for usage, click on it to restore the tool bar window.



This button replaces the image of any tool bar button (including the Tools button) to indicate that original button's function is not available for execution. For instance, it will replace the Edit/Resize button when there is no image to be edited.



File/Open and File/Reopen: Left click to use Open, Right click to use Reopen.



File/Save as and File/Save: Save current image to file. Left click to use Save as, Right click to use Save.



File/Multiple Open: Dialog to specify a list of files to be loaded.



Edit/Undo: Undo last editing operation.



Edit/Cut: Delete image or selection area and place it in the Clipboard.



Edit/Copy: Copy image or selection area to the Clipboard.



Edit/Paste: Insert image from Clipboard.



Edit/Crop: Transform selection area into editing image.



Edit/Resize: Enlarge/shrink editing image or selection area.



Edit/Add Text: Include text in the editing image.



Edit/Flip Horizontal: Flip editing image or selection area horizontally.



Edit/Flip Vertical: Flip editing image or selection area vertically.



Edit/Rotate Left: Rotate editing image or selection area counter clockwise.



Edit/Rotate Right: Rotate editing image or selection area clockwise.



Retouch/Gamma Correction: Brighten/darken editing image.



Retouch/Color Balance: Linear add/subtract RGB color components.



Retouch/Contrast Enhance: Add/subtract contrast.



Retouch/HSV Adjust: Change Hue, Saturation and/or Value.



Retouch/YCbCr Adjust:: Change Luminance and/or Chrominance.



Retouch/Interactive RGB: Change RGB using function maps.



Retouch/Exp Enhance: Brighten image reducing contrast.



Retouch/Log Enhance: Brighten image reducing color bleeding.



Retouch/SineH Enhance: Brighten image increasing contrast.



Retouch/Grayscale: Transform image into grayscale.



Retouch/Negative: Transform image into its (photographic) negative.



Retouch/Image Filters: Apply user defined image filters.



Retouch/Palette Entry: Edit one palette entry RGB values.



Options/Full Screen: Exhibit the current image in full screen mode.



Options/Interface: Setup various interface options.



Options/Jpeg I/O: Left click to alter Jpeg compression/decompression setup, Right click to switch decompression modes.



Options/Jpeg I/O: When this button is BLUE, Normal decompression mode is set, when it's RED, Preview is set.



Help/About LView Pro 1.1: Open LView Pro's About dialog window.



Help/Contents: Activate LView Pro's Help System



# Options/Contact Sheet

A contact sheet is an image that groups smaller images. It can be useful for cataloging images that are related to each other. The smaller images are sometimes called "thumbnails".

This dialog window configures the following contact sheet making options: text font, text size, text attributes and position, text color, text background, image background and image dimensions. These options will be used when a Multiple File Selection is performed and the "Drag&Drop" destination in Options/Interface is set to Contact sheet. A Contact sheet may also be built using the File/Multiple Open command.

Before building a contact sheet, LView Pro will exhibit the Contact Sheet Preview dialog.

# 24-bit Color Dialog

This dialog is used to obtain/edit a color definition. Colors are defined in terms of their Red, Green and Blue components. Each component may assume values in the range [0..255], being 0 the darker value and 255 the brighter value. Black is RGB (0, 0, 0) and White is RGB (255, 255, 255). A color is gray if its Red, Green and Blue components are all set to the same value.

The color obtained in this dialog may look different when applied to the editing image. When the Graphics Mode is not a True color or high color mode, LView Pro will find the nearest color to represent the color selected in this dialog.

# Graphics Mode

LView Pro will run at its best in True or High color graphics mode. On a 256-color (palette based) mode, LView Pro will still exhibit quality images, by quantizing color information and creating a suitable palette for exhibition. On 16 color mode, images will not be displayed correctly. It is possible to change the graphics mode currently selected using Window's Setup program (at Program Manager), and you may find that your graphics card is able to support a better color resolution mode. Bellow is an explanation for each mode mentioned and other useful information.

**Pixel resolution:** In this text, means the number of (graphic) columns and rows that can be displayed. For instance, in 640x480 pixel resolution the screen width is 640 pixels (dots) and the screen height is 480 pixels.

**True Color Mode:** each pixel is represented by its Red, Green and Blue color components. Each color component may assume values in [0..255], that is, each color component requires one byte for storage. One pixel, therefore, requires 3 bytes for storage and that's why True Color mode is sometimes called 24-bit/pixel color mode. The total number of different colors combinations is 2 to the 24th, more than 16.7 million colors. Some image file formats store images with 24-bit/pixel color information. jpeg is one of these formats. Nowadays there are good quality and low cost graphics cards supporting True Color mode at up to 640x480 resolution.

**High Color Mode:** each pixel is represented by its Red, Green and Blue color components. Each color component is defined by either 5 or 6 bits, assuming values in [0..255] with a granularity of either 8 (5 bits) or 4 (6 bits). This means that although a color component may range from 0 to 255, it can only assume values like 0, 7, 15, ..., 248, 255 (in 5 bit resolution). Nowadays there are good quality and low cost graphics cards supporting High Color mode at up to 800x600 pixel resolution.

**Palette Based Mode:** each pixel is represented by an index (one byte) to the currently selected Palette. A Palette is a list (an array) of Red, Green and Blue values. For instance, if a pixel value is 33, the color used to represent that pixel is obtained from the 33rd entry in the palette. Since pixels are represented by a single byte, the Palette size is limited to 256 colors. In this mode, not more than 256 colors may be displayed at the same time. To display a 24-bit color image (with potentially 16.7 million colors) using only 256 colors, a preprocessing called Color Quantizing is utilized. A standard VGA card cannot display in Palette based mode inside Windows. Standard VGA cards can only achieve 256 (simultaneous) color display at 320x200 pixel resolution, and Windows does not run in this resolution. All Super VGA cards can display in Palette based mode at up to 640x480 pixel resolution. Super VGA cards with 1MB Video Memory can display in Palette based mode at up to 1024x768 pixel resolution.

**16 Color Mode:** Standard VGA cards are limited to this color mode. Only 16 colors may be simultaneously displayed, and even these 16 colors cannot be fully customized for a given image, since Windows' relies on these to display interface items, like buttons, scrollbars, caption bars, selected and normal text, etc.

**Changing the Graphics Mode:** To change the graphics mode you must use Windows' Setup program (at Program Manager). You need to chose "Options/Change System Settings" and provide a new Display driver. Display drivers are available from graphics card's manufacturers, and usually a disk with Windows' drivers is supplied together with the card. If you don't have an alternative driver, contact the manufacturer to obtain one. Sometimes drivers are updated to improve performance and/or fix bugs, and it's a good idea to look for upgrades.

**Color Quantizing:** If your graphics card does not support True or High color, you must allow LView Pro to color quantize images when image files are loaded. Color quantizing is the process of selecting a set of colors that approximate the ones required to display an image. Dithering, also recommended, is a method of combining a small set of colors together (like a Mosaic) to produce the effect of non-available colors. For instance, a tone of yellow that is not available among the palette colors can be simulated by positioning pixels in other tones of yellow very close together. LView Pro will automatically configure the Quantizing and Dithering setup adequate for your graphics card if "Auto quantize setup" is enabled in [Options/Interface](#). You can change the default setup using the [Options/Quantizing](#) dialog. You can also change the color representation for the image being edited, using the [Retouch/Color Depth](#) dialog.

# Retouch/Color Depth

Use this dialog window to redefine the color depth of the image being edited. Color depth here means the maximum number of colors that can be used to display the image. This dialog allows for changing the color depth to the following options:

- True color image: Up to 16.7 million colors
- Palette image: Up to 256 colors

If you select True color image, your graphics card may not be able to exhibit the resulting image correctly, if you select Palette image, you can also determine the number of colors in the color palette:

- 256 colors (including Windows palette): LView Pro will create a new palette for the image or adapt the current palette to hold 256 color entries. The default Windows' colors will be included in the resulting palette.
- Windows palette (16 colors): LView Pro will try to represent the image being edited using only the 16 default colors (the colors Windows' uses for caption bars, buttons, text, etc.).
- Black and White: The image will be displayed using only pure Black and White pixels.
- Custom number of colors: Use this item if you want a palette based image with less than 256 and more than 16 color possibilities. The default Window's colors will always be included among the set of resulting colors.

When changing the color depth of an image from True color to Palette image it is necessary to create a new palette of colors. Then, each pixel in the original image must be mapped to one of the colors in that new palette. In the process of mapping, many colors in the image will not find a perfect match among palette colors. One approach in this case is to represent the color with the palette entry that best approximates it. Another approach is to try to represent non matching colors using not one, but a group of pixels. These pixels (like colors combinations in an impressionist painting) approximate the desired color. This last approach is called Dithering, and LView Pro will use it when the "Enable Floyd-Steinberg Dithering" option is checked.

For more information about image colors, see the [Graphics Mode](#) help topic.

# Retouch/Contrast Enhance

Use this dialog window to alter the image contrast. Contrast enhancement is obtained by brightening darker pixels and darkening brighter ones (to reduce contrast) or doing the opposite (to increase contrast). Contrast offsets vary from -64 (no contrast) to +64 (maximum contrast).

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Retouch/Color Balance

Use this dialog window to specify increments/decrements for Red, Green and Blue color components. The values specified are added to each image pixel representation. For instance, a pixel whose current value is RGB (10, 10, 10) will become RGB (20, 10, 10) if you move the Red scrollbar to 10 and keep the others at 0. The maximum resulting value for a color component is 255 and the minimum 0, LView Pro truncates invalid results.

Editing in True color mode is a slow process. In this mode, changes will only be performed when the "Exec" button is pressed, so you can alter more than one parameter before waiting for command execution.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Retouch/Grayscale

This command transforms a color image into grayscale. Each pixel is transformed into the gray pixel (Red = Green = Blue) with the (approximate) same luminosity. If you undo operations are enabled in Options/Interface, the original image may be restored using Edit/Undo.



This command is also available at the Tollbar.

# Retouch/Negative

This command transforms a color or grayscale image into its photographic negative. Each pixel is has its luminosity (nearly) complemented. If undo operations are enabled in Options/Interface, the original image may be restored using Edit/Undo.



This command is also available at the Tollbar.



# Retouch/Exp Enhance

Use this dialog window to set the desired level of Exponential enhancement. for all pixels in the image. Exponential enhancement brightens dark pixels in the image, while simultaneously reducing overall image contrast. It may not be adequate for images in general, but comes in handy for highly contrasted images.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Retouch/Gamma Correction

Use this dialog window to specify the amount of Gamma Correction to be applied to all image pixels. Gamma correction may be used to brighten or darken the image. If "Lock RGB Scrollbars" is checked, moving one scrollbar will move the other two. Otherwise, gamma correction values may be set individually for Red, Green and Blue components. Values above 0 will brighten the corresponding color component on all pixels, values below 0 will darken the corresponding color component on all pixels. Gamma correction may not be suitable for all images, for brightening you may experiment with other commands like Retouch/Exp Enhance, Retouch/Log Enhance and Retouch/SineH Enhance.

Editing in True color mode is a slow process. In this mode, when "Lock RGB Scrollbars" is not checked, changes will only be performed when the "Exec" button is pressed, so you can alter more than one parameter before waiting for command execution.

Click on "Cancel" to discard any changes you have made, and terminates the dialog.

Click on "OK" to confirm the changes and terminate the dialog.

## **T**

This command is also available at the Tollbar.

# Retouch/Image Filters

Use this dialog window to execute an image filter, and/or to define a new image filter specification. Image Filters perform "averaging" operations on color components of neighbor pixels. The resulting color components for any given pixel, are calculated based on the current color components of its neighbors and itself. LView Pro defines some default filter specifications, at the beginning of the Select Filter list box. These default specifications may be freely edited, and may be later restored by clicking on the "Defaults" button. The options and tools in this dialog are:

**Selected Filter listbox:** Select one of the filters in this list, either to edit its definition or to execute it in the current image.

**Affected Color Components:** Only color components (Red, Green and Blue) that are checked will be affected by filter execution. In most cases all three components should be checked.

**Rename Current Filter:** Allows the user to rename a filter specification to better describe its action. The first few filters in the list are initialized by LView Pro, while the remaining are intended to be defined (and renamed) the user. Notice that it is possible to edit/rename all filters, including the ones initially defined by LView Pro.

**Filter Matrix:** Each entry in this matrix contains a multiplier. When a filter is executed, the Filter Matrix is centered at each pixel in the image, and pixels in a 5x5 neighborhood of the center pixel (including the central pixel itself) have their color components multiplied by matrix entries. All 25 (5x5) products are added together to produce a total sum.

**Division Factor:** This value is utilized to divide the total sum obtained as described above. Usually, this parameter should be equal to the sum of all Filter Matrix indices, but a slightly smaller/bigger value may be used, to proportionally brighten/darken the resulting image.

**Bias:** The final step in applying the filter is to add the Bias parameter to the result of Total Sum / Division Factor. The value obtained here will replace the color component of the central pixel.

Click on "Default" to restore LView Pro's default filter specifications. Notice that this will overwrite the first 9 filters currently defined.

Click on "Exec" to execute the filter currently selected in the Selected Filter listbox.

Click on "Cancel" to terminate this dialog and discard any changes made to the image during dialog execution.

Click on "OK" to terminate this dialog and keep changes made to the image.



This command is also available at the Tollbar.

# Retouch/SineH Enhance

Use this dialog window to specify the desired level of Hyperbolic Sine enhancement for all pixels in the image. Hyperbolic sine enhancement brightens dark pixels, while simultaneously increasing overall image contrast. It may not be adequate for images in general, but comes in handy for poorly contrasted images with dark areas.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Retouch/Log Enhance

Use this dialog window to specify the desired level of Logarithmic enhancement for all pixels in the image. Logarithmic enhancement brightens dark pixel, while keeping already bright ones from becoming too bright. It may not be adequate for images in general, but often produces better results than [Retouch/Gamma Correction](#) for brightening dark images.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Options/Load All

Use this menu item to restores all LView Pro configuration options from the initialization file.

# Options/Save All

Use this menu to save all LView Pro's current configuration options to the initialization file.

# Options/Default

Use this menu to reset all LView Pro's configuration options to their "factory defaults". The options are set for the current LView Pro execution and are not saved to the initialization file. To make the default options available for later execution, use the Options/Save All command.



# Options/Quantizing

This dialog window is similar to the one associated to the [Retouch/Color Depth](#) command. Use is to configure the resulting color depth when loading images. When "Auto quantizing setup" in [Options/Interface](#) is checked, LView Pro will automatically set the quantizing options adequate for your graphics card at every execution startup. For more information see the [Graphics Mode](#) help topic.

# Keyboard Accelerator Keys

Some of the most commonly functions provided by LView Pro can also be activated through special keyboard combinations called Accelerator Keys.

Bellow is a list of all Accelerator Keys recognized by LView Pro:

## **Client Area Scrolling (also available during Selection Area definition):**

- PAGE UP: one page up,
- PAGE DN: one page down,
- HOME: one page left,
- END: one page right,
- UP ARROW: one row up,
- DOWN ARROW: one row down,
- LEFT ARROW: one column left,
- RIGHT ARROW: one column right

## **Menu Item Shortcuts:**

- ALT-BACKSPACE: Edit/Undo,
- SHIFT-DEL: Edit/Cut
- CONTROL-INS: Edit/Copy
- SHIFT-INS: Edit/Paste
- CONTROL-DEL: Edit/Delete
- CONTROL-'R': Edit/Resize
- CONTROL-'F': Options/Full Screen
- CONTROL-'S': Options/Interface: Position window at: Same position
- CONTROL-HOME: Options/Interface: Position window at Left&Top
- CONTROL-END: Options/Interface: Position window at Left&Bottom
- CONTROL-PAGEUP: Options/Interface: Position window at Right&Top
- CONTROL-PAGEDN: Options/Interface: Position window at Right&Bottom
- CONTROL-'C': Options/Interface: Position window at Center

# LView Pro 1.1 Licensing, Registration and Distribution

LView Pro is a SHAREWARE product from the same author of the LView FREEWARE series. The LView FREEWARE series, copyright 1993, 1994 by Leonardo Haddad Loureiro was discontinued at version 3.1. This is version 1.1 of the LView Pro SHAREWARE series, copyright 1994 by Leonardo Haddad Loureiro. Rules for licensing, registration and distribution of LView do not apply to LView Pro.

The term "SHAREWARE version" identifies the complete package containing the Microsoft Windows 3.1, Intel i386 version of LView Pro 1.1. By complete package we mean: LView Pro 1.1 executable file, associated help file, readme file and registration form files. For a complete list of these files, and their filenames, refer to the [Package Contents](#) help topic. The term "SHAREWARE copy" identifies an instance of the SHAREWARE version.

The term "REGISTERED version" identifies all other versions of LView Pro 1.1, for platforms and processors other than Microsoft Windows 3.1 and Intel i386. The term "REGISTERED copy" identifies an instance of the REGISTERED version.

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### **Contacting the author of LView Pro 1.1**

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USA

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# Acknowledgments

LView Pro 1.1 is based in part on the work of the Independent JPEG Group.

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Special thanks to all users who contributed with email messages, bug reports, suggestions and image files for testing.

# Tool Bar Position

The Tool Bar window may be positioned in three locations: to the left of LView Pro's window, to the right of LView Pro's window and at LView Pro's caption bar. The position of the Tool Bar is updated to the initialization file every time LView Pro's execution is terminated, and retrieved at its next execution startup.

To move the Tool Bar window to either side, click the left mouse button on its caption bar. To place the Tool Bar window at LView Pro's caption bar, click on the button at the Tool Bar window caption. To restore the Tool Bar window from LView Pro's caption bar, click on the tool icon at LView Pro's caption bar.



# Embedded Calculator Operation

## Description

LView Pro features an embedded calculator to evaluate user defined expressions. The calculator is used to evaluate expressions entered at the Retouch/Interactive RGB dialog window.

The calculator is a simple, yet powerful expression interpreter. It accepts C-like expressions and provides: operators, built in "scientific functions", and two pre-defined constants: "e" (base for the Napierian logarithms) and "pi" (3.1415...).

## Calculator function reference

Bellow is a list of all functions supported by the calculator, and their parameters. All trigonometric functions work in radian units.

- Log (x, b): logarithm of x on base b,
- Ln (x): Napierian logarithm of x,
- Exp (x): exponential of x,
- Sin (x): sine of x,
- Cos (x): cosine of x,
- Tan (x): tangent of x,
- Cotg (x): cotangent of x,
- Sec (x): secant of x,
- Cosec (x): cosecant of x,
- Atan (x): arc whose tangent is x,
- Asin (x): arc whose sine is x,
- Acos (x): arc whose cosine is x,
- Sinh (x): hyperbolic sine of x,
- Cosh (x): hyperbolic cosine of x,
- Tanh (x): hyperbolic tangent of x,
- Abs (x): absolute value of x.

## Calculator operators

Add, subtract, multiply, divide, raise to power and module: + - \* / ^ %  
Boolean AND and OR: && ||  
C-like ternary operator: ?:

## Example expressions

$x^{0.8} + \sin(x)$

-- yields x raised to 0.8 plus the sine of x.

$x < 0.5 ? x : 0.5 - \cos(x * \pi) / 2$

-- yields x if x is smaller than 0.5. Otherwise, yields 0.5 minus half of the cosine of x times pi.

$x == 0.5 || (x < 0.25 \ \&\& \ x > 0.1) ? 1 : x$

-- yields 1 for values of x in the set  $(0.1 .. 0.25) \cup \{0.5\}$ . For other values of x, yields x.

# Retouch/HSV Adjust

Use this dialog to edit the Hue, Saturation and Value components for all pixels in the image. Hue is a circular value denoting the "dominant" color tendency (among Red, Green and Blue). Saturation is the amount of color (0 saturation produces a grayscale image), Value is a measure of lightness, tendency to white. For Saturation and Value, scrolling to positive values will increase the component. For Hue, the scrolling extremes will take you back to Hue == 0. HSV editing may be useful to reduce/increase the amount of color in certain images, by varying the Saturation control. The Value control may be used to brighten/darken an image, although the [Retouch/Log Enhance](#), [Retouch/Exp Enhance](#), [Retouch/SineH Enhance](#) and [Retouch/Gamma Correction](#) will probably do a better job. Hue is useful to adjust some images that were originally scanned with excess of yellow or green (due to bad scanner setup).

Editing in True color mode is a slow process. In this mode, changes will only be performed when the "Exec" button is pressed, so you can alter more than one parameter before waiting for command execution.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Retouch/YCbCr Adjust

This dialog window allows for Y, Cb and Cr adjustment for all pixels in the image. The YCbCr color system is utilized for TV color broadcast in Europe. Y is known as the "luminance" component, and has no effect on pixel color, but on pixel luminosity. Cb and Cr are known as the "chrominance" components, and together define the color for each pixel. Roughly speaking, Cb and Cr represent the balance between Blue and Red in relation to Green.

As in the Retouch/HSV Adjust command, YCbCr editing may be useful to correct images that were poorly scanned (in terms of color balance). While the Y component may be used to darken/brighten the image, the commands Retouch/Log Enhance, Retouch/Exp Enhance, Retouch/SineH Enhance and Retouch/Gamma Correction will probably yield better results for that purpose.

Editing in True color mode is a slow process. In this mode, changes will only be performed when the "Exec" button is pressed, so you can alter more than one parameter before waiting for command execution.

Click on "Cancel" to discard any changes you have made, and terminate the dialog.

Click on "OK" to confirm the changes and terminate the dialog.



This command is also available at the Tollbar.

# Package Contents

The files composing LView Pro 1.1 package are:

- lviewp11.exe - LView Pro 1.1 executable file,
- lviewp.hlp - LView Pro 1.1 help file,
- readme.1st - General information about LView Pro 1.1,
- iregistr.txt - Individual user registration form,
- sregistr.txt - Site license registration form.

Please, read the contents of the [LView Pro 1.1 Licensing, Registration and Distribution](#) help topic for information about registration for files and general information conditioning LView Pro 1.1 usage.

# Options/Jpeg I/O

Use this dialog to define Jpeg input and output (compression and decompression) parameters.

## Decompression parameters:

LView Pro offers two modes for Jpeg decompression: Normal and Preview. You should set options that yield higher decompression quality for Normal decompression mode, and aim for speed when choosing Preview decompression options. Switching from one mode to the other is simple: use the RIGHT mouse button to click this dialog's button, at the Toolbar. The Toolbar button also provides visual information to tell which mode is currently set. When Normal mode is set, the button is painted BLUE. When Preview mode is set, the button is painted RED.

If you decide to reload a file, after loading it in Preview mode, use File/Reload. This command is also available at the Toolbar, by clicking the RIGHT mouse button on the File/Open button.

In this dialog, the mode for which options are being set is indicated at the "Jpeg decompression" title, as either "Normal" or "Preview". In order to select options for the other mode, click on the button that called "Switch to Preview mode" or "Switch to Normal mode", depending on which mode is currently being edited. The mode being edited at the time you confirm and exit this dialog (by pressing the "OK" button) will become the current decompression mode.

Load grayscale: Check this box to force Jpeg images to be loaded without color information. When this option is checked, jpeg decompression is faster, and this feature may be useful in the Preview decompression setup.

Fast upsampling: Check this box to select a faster, but less precise upsampling algorithm, uncheck it to slightly improve image decompression quality. Checking this option may be useful in the Preview decompression setup.

DCT method: Choose among three methods for computing Discrete Cosine Transforms:

Integer accurate: Slower but accurate integer computation (recommended for the Normal setup),

Integer fast: Faster, less accurate integer computation (recommended for the Preview setup),

Floating point: Most accurate, but slower than the integer methods.

Scaling ratio: This option allows for loading a jpeg file using it's full dimensions (1:1), or performing a scaling of the dimensions at load time, using either one half (1:2), one fourth (1:4) or one eighth (1:8) for scaling ratio. Decompression speed rapidly increases as scaling ratio denominators grow, and this feature is certainly usefull in the Preview decompression setup.

## Compression parameters:

Compression quality: Can assume values from 20 to 95. The lower(higher) the value, the smaller/(bigger) the resulting file will be, yielding greater(smaller) compression ratios. Notice that there is a tradeoff between compressed file size and posterior decompression fidelity to the original image. The bigger(smaller) the compression quality the better(worse) will be the decompressed image.

Entropy optimization: When checked, jpeg compression will take longer to be processed but (usually) generate slightly smaller files.

Save grayscale: Check this option when compressing a grayscale image to jpeg format. Images stored in jpeg grayscale format produce smaller files and are decompressed faster than images stored (in jpeg) with color information.

Confirm before saving in grayscale format: Check this option to make LView Pro confirm each time an image is saved to jpeg format, with the Save grayscale option checked. It is a good idea to leave this option checked, since it is possible to forget the Save grayscale option checked after saving a grayscale image. When this option is checked, LView Pro will display a confirmation message before conducting the save operation.

In the confirmation message you have the choice of confirming the save operation (if you really want to save the image in grayscale format) by clicking on "YES", canceling the save operation, by clicking on "CANCEL" or saving the image in color Jpeg format, by clicking on "NO".

Click on "OK" to confirm the options you entered, and terminate the dialog. The decompression setup being edited when you click on "OK" will become the current decompression setup.

Click on "Cancel" do discard any changes you have made, and terminate the dialog.



This command is also available at the Tollbar.

# Options/Memory

When main memory is low, some functions may utilize secondary memory (temporary disk files) to process. Use this dialog window to enable or disable temporary file usage, and to specify the directory where temporary files should be created.

# Help/Diagnosis

Use this menu item to obtain information how to set up LView Pro for the current graphics mode.

Related help topics are: [Help/Device Caps](#), [Options/Quantizing](#), [Options/Interface](#) ("Auto quantize setup" option), [Retouch/Color Depth](#), [Help/Device Caps](#) and [Graphics Mode](#).



# Help/Device Caps

Use this menu item to obtain information about the display driver installed in your system. The information displayed is obtained directly from the display driver, and used by LView Pro to configure internal image displaying strategy.

Related help topics are: [Help/Diagnosis](#), [Options/Quantizing](#), [Options/Interface](#) ("Auto quantize setup" option), [Retouch/Color Depth](#), [Help/Diagnosis](#) and [Graphics Mode](#).

# Help/Contents

This menu item starts the help system positioned at the help Contents topic.



This command is also available at the Tollbar.

# Help/About LView Pro 1.1

This menu item opens a dialog window containing information about LView Pro 1.1. Related help topics are [Package Contents](#) and [LView Pro 1.1 Licensing, Registration and Distribution](#).



This command is also available at the Tollbar.

# File/Multiple Open

Use this dialog window to define a list of files to be loaded by LView Pro. The selected files will be processed by the Open Destination function, also selected in this dialog. The behavior of the Open Destination function can be configured from this dialog. Multiple file operations can also be started by using the Windows' File Manager together with drag&drop operations. For information about this alternative see: [Multiple File Selection](#) and [Options/Interface](#).

Bellow is a description of each dialog component:

- Current path: Indicates the drive and directory where the files in the left list box are located.
- Left list box: Contains a list of files that can be selected for loading. Selection commands are identical to the ones used in Windows' File Manage directory windows. Besides file names, this list box contains sub directories and drives by the end of the list. Double clicking the left mouse button on sub directory or drive names will reinitialize this list box with a file list from the selected sub directory or drive. For instructions on how to select files, see the [Multiple File Selection](#) help topic. We call this list box as the DIRECTORY list.
- List files of type: Select here the extension for files in the DIRECTORY list.
- Right list box: Contains the list of selected files. These files will be processed by the selected Open Destination function. We call this list box as the SELECTION list.
- Open Destination: Select here the Open Destination function. For information about Open Destination functions, see [Options/Slideshow](#), [Options/Contact Sheet](#), [Options/Jpeg I/O](#) and [File/Printer Setup](#).
- Setup button: Clicking this button will open the configuration dialog window for Open Destination function. Access to these dialog windows is also available in the [Options Menu](#).
- Select All button: Selects all files in the DIRECTORY list.
- Unselect All button: Unselects all files in the DIRECTORY list.
- Add button: Adds Selected files in the DIRECTORY list to the SELECTION list.
- Remove button: Removes Selected files from the SELECTION list.
- Add All button: Adds all files in the DIRECTORY list to the SELECTION list.
- Remove All button: Removes all files from the SELECTION list.
- Load from file button: Reads a list of filenames from a text file, adds that list to the SELECTION list.
- Save to file button: Saves the SELECTION list to a text file, for posterior usage with "Load from file".

Click on "Cancel" to end this dialog window and discard all selections made.

Click on "OK" to begin the multiple file open operation on files in the SELECTION list.



This command is also available at the Tollbar.

# Retouch/Palette Entry

This menu item activates the Palette Entry Color Dialog where one of the palette entries is selected for edition. If a palette entry is selected, the 24-bit Color Dialog is opened next, to obtain the new specification for the selected entry. If the latter dialog is confirmed, the palette entry is altered to the new specification, and the image is re-drawn. Related help topics are: Graphics Mode, Retouch/Color Depth and Options/Quantizing.

This command is only available for color palette based images.

To cancel this command, click "Cancel" in either color dialog.



This command is also available at the Tollbar.

# Palette Entry Color Dialog

This dialog window exhibits all color palette entries utilized in the current image. Select one of the entries by clicking the left mouse button on it, and then clicking on the "OK" button.

To cancel the selection, click on "Cancel".

# Frequently Asked Questions

This help topic provides answers and/or indicates which help topics contain answers for some frequently asked questions.

## **Q1: Why do colors look wrong when I load an image?**

A1: Your graphics card may not be able to do better than that. Check the [Graphics Mode](#) help topic for information on graphics cards capabilities and related issues.

A2: If your graphics card can display at least 256 simultaneous colors, you still have to check if the display driver selected at Windows' Setup allows for 256 color representation.

A3: Another possibility is that LView Pro is not trying to auto configure its quantizing options. Check if "Auto quantize setup" is checked in [Options/Interface](#).

A4: If everything else failed, it may be the case that LView Pro is not receiving correct information from the display driver. Check [Help/Device Caps](#) and [Help/Diagnosis](#) and see if they provide the information you would expect. If not, try unchecking "Auto quantize setup" in [Options/Interface](#), and set Options/Quantize manually with for characteristics you believe your card (and driver) are set to provide.

## **Q2: Why is the menu item (and ToolBar button) [Retouch/Palette Entry](#) always disabled?**

A: Your graphics card must be operating in True or High color mode. Check [Help/Device Caps](#) for a confirmation on that. If so, LView Pro is loading 24-bit/pixel images without (unnecessary) palette information. The Retouch/Palette entry command is only available when the image being edited is palette based (check [Graphics Mode](#) for an explanation about these terms). If you want to use this command, you can use [Retouch/Color Depth](#) and transform the image into a palette based image. Be aware that if the original image is stored in 24-bit/pixel format, image quality will be lost in the process.

## **Q3: Why is the menu item (and ToolBar button) [Retouch/Image Filters](#) always disabled?**

A1: If your graphics card is operating in palette mode, and LView Pro is quantizing images for display, then you cannot use [Retouch/Image Filters](#). This command is only available for True color images.

A2: If you want to experiment with Image Filters, but your card cannot work in True or High color modes, you can use Options/Quantize to make LView Pro load images in 24-bit/pixel format (if the image file is in that format) or, use [Retouch/Color Depth](#) to transform a palette based image into 24-bit/pixel resolution. Be aware that the image will not be displayed correctly in the screen. If you save it and reload it with the proper quantize setup, or use [Retouch/Color Depth](#) to transform it back to palette based, then it will be displayed OK.

## **Q4: Will the image format 'XYZ' be supported by LView Pro?**

A1: LView Pro already supports the most commonly used image formats in the Windows/PC environment. That doesn't mean that new image formats will not be added, but searching for good specifications on image file formats is time consuming and the priority for these enhancements is not high.

A2: If you want to contribute and produce either clear documentation about a particular file format, or provide source code to read and write files in this format into/from Windows DIB format, I'll gladly add it to LView Pro. It is very easy to plug in another file reader/writer module.

### **Q5: Why are there so many commands to edit brightness and contrast?**

A1: Video monitors display images with different brightness and contrast sensibilities. The same image, viewed in different monitors may look darker in one and brighter in the other. One solution is to regulate the contrast/brightness controls on the monitor. But, given the degree of flexibility provided LView Pro for by image editing, it may be better to adjust the image representation instead, The problem is that a single algorithm is not effective for all images. That's why LView Pro provides many (very) different algorithms for contrast/brightness adjustment. Some work only on brightness, like [Retouch/Gamma Correction](#), or only on contrast, like [Retouch/Contrast Enhance](#). Other commands alter both brightness and contrast, like [Retouch/Exp Enhance](#), [Retouch/Log Enhance](#) and [Retouch/SineH Enhance](#). It is only through experimentation that you will learn which one should be used on a given image.

A2: Brightness and contrast commands all use color mappings to produce their effect. You can develop your own mappings using the [Retouch/Interactive RGB](#), either by drawing curves, or by specifying algebraic functions. Exp, Log and SineH enhancement commands were developed through experimentation with this command.

A3: It is often a good approach to use more than one editing function on the same image. By combining the effect of different enhancement functions, one after the other, the resulting image may look more "natural".

### **Q6: Can LView Pro process files from the command line?**

A: Yes. LView will load each file specified in the command and perform a Slideshow, using the currently set [Options/Slideshow](#) options.

### **Q7: How can I start a slideshow/contact sheet/batch compression/batch printout?**

A1: One way to perform these operations is by using Windows' File Manager together with Drag&Drop operations. See the help topic [Multiple File Selection](#) for information on how to do it.

A2: Another way is to use [File/Multiple Open](#).

### **Q8: How can I get help to solve a problem not covered by this help system?**

A: Write email to [mmedia@world.std.com](mailto:mmedia@world.std.com), mentioning LView Pro in the subject line. You will receive an answer.



**Q9: How can I get help to solve a problem covered by this help system ... but I just could not find the answer???**

A: Same answer as in Q9, but in this case you will receive a list of help topics related to the problem in question.

**Q10: Do I need to register to use LView Pro (do I need to pay a fee) ?**

A1: If you are an individual or home user, utilizing LView Pro for leisure purposes, you do not need to pay fees or register. You may wish to register and obtain a version of the software customized for Microsoft Win32s and Windows NT, Intel 486 or Pentium.

A2: If you are an individual or home user, utilizing LView Pro for work related purposes, you need to fill out and send an "Individual User Registration Form" together with the appropriate fee.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer.](#)

**Q11: Is it OK to upload LView Pro to a local BBS/FTP site/Usenet newsgroup?**

A: Yes, the restriction being that a BBS cannot charge special fees for downloading LView Pro. Flat rate connection fees are (obviously) allowed.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer.](#)

**Q12: Is it OK to upload LView Pro to a private BBS/Electronic site maintained by the company I work for?**

A: Yes, provided that your company does not utilize LView Pro for commercial purposes or as a work related tool.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer.](#)

**Q13: Can LView Pro be included in a CD-ROM/diskette/similar media accompanying a book/magazine/similar?**

A: Yes, provided that the publisher/author of the book/magazine has previously contacted the author of LView Pro to obtain a "Non-exclusive Distribution License Agreement" signed by the author of LView Pro.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer.](#)

**Q14: Can LView Pro be utilized for commercial purposes or as a work related tool in my business/in the company I work for?**

A: Yes, provided that an authorized employee has filled out a "Site License Registration Form" and mailed it to LView Pro's author together with the appropriate fee.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer](#).

**Q15: Can LView Pro be included in a commercial software package?**

A: Yes, provided that the software distributor has previously contacted the author of LView Pro to obtain a "Non-exclusive Distribution License Agreement" signed by both parties.

Check the help topics: [LView Pro 1.1 Licensing, Registration and Distribution and Disclaimer](#).

**Q16: How do I contact the author of LView Pro?**

A1: Send email to [mmedia@world.std.com](mailto:mmedia@world.std.com), mentioning LView Pro in the subject line.

A2: Write to:

Leonardo Haddad Loureiro  
1501 East Hallandale Beach Boulevard, #254  
33009 -- Hollywood -- Florida  
USA

# Retouch/Interactive RGB

This dialog window allows for definition and execution of arbitrary user defined transformation maps for the Red, Green and Blue, color components of all pixels in the image. Transformation maps are functions of a single variable yielding a single result. An example of a map is  $2*x$ , which simply doubles the value of original color components. In this dialog, Red, Green and Blue are treated like real (floating point) numbers ranging from 0 to 1. This domain facilitates the usage of LView Pro's embedded calculator functions.

If you do not want to define a map in algebraic terms, you may still draw a curve representing the desired transformation using the mouse, and unchecking the "Use Functions" checkbox.

LView Pro stores up to 20 map definitions in its initialization file. The first 10 maps are pre-defined by LView Pro (but can be edited and customized by the user). Interactive RGB comes in handy when dealing with images for which none of the pre-defined Retouch Menu commands produces satisfactory results. Mappings for some of the Retouch commands (Retouch/Log Enhance, Retouch/Exp Enhance and Retouch/SineH Enhance) were actually "discovered" through experimentation with Interactive RGB. For examples on how expression definition, and a list of available functions and operators, see the Embedded Calculator Operations help topic.

Options and tools in this dialog are:

The Map Graph window: Exhibits a graphical representation of the selected map, and allows for interactive definition (by drawing with the mouse) of a map.

Ordering: Choose "None" if you do not want the mapping to be non-decreasing nor non-increasing. Choose "Increasing" if you do not want to allow  $f(x) < f(y)$  for  $x > y$ . Choose "Decreasing" if you do not want to allow  $f(x) > f(y)$  for  $x > y$ . Decreasing maps may be utilized to produce image photographic negative effects.

Lock RGB Graphs: Check this box if you want a single function definition, or map drawing to be utilized for Red, Green and Blue components. Uncheck this box if you want to define separate functions or map drawings for each component. Using different maps for different components may help correct color component unbalancing.

Use Functions: This item is automatically unchecked whenever drawing is done in the Map Graph Window. When this item is unchecked, LView Pro will not consider the current function expression exhibited in the Select Function list box. When this item is checked, LView Pro will use the function definition exhibited in the Select Function list box.

Select Function listbox: Choose one of the pre-defined functions definitions for edition or to define the map in the Map Graphic Window.

Edit Function definition: Click on this button to replace the function definition for the current item exhibited in the Select Function listbox.

Color Component: Choose which color component function will be visible in the Map Graphic Window, and editable by drawing or typing in function definitions. If Lock RGB Graphs is unchecked, each color component will store its own definition.

Click on "Exec" to execute the current Interactive RGB setup.

Click on "Cancel" to terminate this dialog and discard changes made to the image.

Click on "OK" to terminate this dialog and keep changes made to the image.



This command is also available at the Tollbar.

# Options/Interface

Several interface options are configured in this dialog window. With few exceptions, these options usually are configured after installation, and remain unchanged afterwards. Bellow is an individual description for each option.

- Enable undo: LView Pro will reserve memory for undo buffers if this option is checked. In systems where main memory is relatively small, or if you edit very large images, you may turn this option off or LView Pro will frequently run out of memory. The command [Edit/Undo](#) will not be available while this option is off.
- Auto quantize setup: If this option is on, LView Pro will automatically choose the adequate way for loading images in the current graphics mode. This setup is done every time LView Pro is loaded, and you will be prompted to accept any necessary changes. If this option is off, LView Pro will use the parameters set in the [Options/Quantizing](#) dialog. Related help topics are: [Graphics Mode](#), [Retouch/Color Depth](#), [Retouch/Palette Entry](#), [Help/Device Caps](#) and [Help/Diagnosis](#).
- Window auto-resize: Checking this option will make LView Pro resize its window to fit the current editing image dimensions. When a perfect fit is not possible, scrollbars will be available, if the Options/Show Scroll Bars menu item is checked. Unchecking this option will prevent LView Pro from automatically changing the dimensions of its window.
- Show scroll bars: When this option is checked, LView Pro will display scroll bars whenever the current editing image cannot be fully displayed inside LView Pro's client area. If this option is unchecked scroll bars will not be exhibited. Scrolling will still be possible during [Selection Area](#) definition and through the usage of [Keyboard Accelerator Keys](#).
- Thick [Selection Area](#) frame: This option controls the width utilized for [Selection Area](#) borders. Check it to specify a thicker and easier to move/drag area frame. If this item is unchecked, the [Selection Area](#) border width and height will be set to one pixel.
- Animate [Selection Area](#) frame: If this option is checked, [Selection Area](#) frames are animated for easier operation. Uncheck to turn animation off.
- Confirm all save operations: Check this option receive a confirmation message from LView Pro before saving images to the disk. If this option is unchecked, LView Pro will not confirm before saving an image when you select [File/Save](#) or click on the correspondent icon in the Tool Bar. When saving images in Jpeg grayscale format, a confirmation prompt may be exhibited regardless of this option's selection state. See [Options/Jpeg I/O](#) for more information about confirming image save operations in Jpeg grayscale format.
- Open icon after load: Check this option if you want LView Pro to restore its window (if the window was minimized) when an image load operation is completed. Uncheck it if you prefer LView Pro to remain minimized.
- Drag&Drop destination: Selects which Open Destination function will process multiple file selections dropped to LView Pro's window or icon. For more information, see [Multiple File Selection](#) and [File/Multiple Open](#).
- Image resize on load: LView Pro may optionally resize images upon load. Check 'Never' if you do not want to use this feature, 'Only to shrink' if you only to resize images larger or wider than the maximum client window, 'Only to enlarge' if you want images smaller than the maximum client window to be enlarged, or 'Always' to resize all images upon load.
- Position window at: Selects the position where LView Pro will place its window every time an image is loaded or image dimensions are changed. Choose among the desktop corners, the desktop center, or select 'Same position' if you do not want to use this feature.
- Clipboard copy format: LView Pro may utilize one of two formats when copying images to the Clipboard:
  - . Device Independent Bitmap (DIB) format. This is the recommended format to fully describe an image in terms of color resolution, independent of the current graphics mode. This is also the format used in Windows BMP files.

. Device Dependent Bitmap (DDB) format. Some applications do not support the DIB format when pasting from the Clipboard. Use this option only when generating a Clipboard image to be pasted into one of these applications.

When pasting from the Clipboard, LView Pro will look first for data in DIB format. In the absence of DIB data, if a DDB is present LView Pro will paste it and convert it into DIB format. For more information see [Edit/Paste](#).



This command is also available at the Tollbar.

# File/Reopen

This menu item re-loads the last file loaded by LView Pro. This may be useful after previewing a Jpeg file and switching to Normal decompression mode. See [Options/Jpeg I/O](#) for an explanation about decompression modes.



This command is also available at the Tollbar (click with the RIGHT mouse button!).

# Contact Sheet Preview

This dialog allows for interactive positioning and sizing of the contact sheet thumbnails. See [Options/Contact Sheet](#) for information about contact sheet setup.

In this dialog, use the left mouse button to click and drag thumbnails on the Preview Window. Individual thumbnails may be resized by clicking and dragging on their frame edges (watch the mouse pointer change its shape when positioned over an edge). Whenever a thumbnail is clicked on, the information associated with it is exhibited at the bottom of the dialog window (file name, original dimensions, upper left corner on contact sheet, thumbnail dimensions, image file format). The thumbnail whose information is currently being shown is painted with a red frame.

By using the Global resize scrollbar, you can enlarge or shrink all thumbnails simultaneously. Choose percentages below 100% to shrink and above 100% to enlarge. Notice that after a global resize is performed, the scrollbar is repositioned at 100% and subsequent resize percentages will be relative to the current thumbnail sizes.

The file name associated with each thumbnail is exhibited in a rectangular frame below it. File name frames are painted blue when the frame width is sufficient to represent the whole file name string. When the frame width is too small, file name frames are painted green, to indicate that the corresponding thumbnail should be enlarged.

Click on "Reset" to restore all thumbnail positions and sizes to their initial values.

Click on "OK" to accept the current preview setup and build the Contact Sheet.

Click on "Cancel" to discard all editions you have made and cancel the operation.





