Paint Shop Pro Help Index

The Index lists all Help topics available for Paint Shop Pro. Use the scroll bar to see entries not currently visible in the Help window.

To learn how to use Help, choose Using Help from the Paint Shop Pro Help menu.

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Purchasing The Licensed Version of Paint Shop Pro

The licensed version of Paint Shop Pro may be purchased from the vendor of your choice. Click on the vendor's name to display that vendor's order form.

When you purchase Paint Shop Pro, you will also receive 30 true color JIF images.

Vendor List:	Location:
BUDGETWARE	Australia
Pro-Soft	Denmark
The Thompson Partnership	England
WindowShare	France
Fa. MBM	Germany German Version
BroCo Software	Nederland
Personal Data Factory	Japan
JASC, Inc.	USA

Click here to see a description of products by JASC, Inc.

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Paint Shop Pro	F 159,00
ImageCommander	F 105,00
Paint Shop Pro & ImageCommander	F 215,00
Verzendkosten bij vooruitbetaling	F 7,50
Verzendkosten onder rembours	F 12,50

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Paint Shop Pro	£49.00..._____
ImageCommander	£29.00..._____
Paint Shop Pro & ImageCommander	£64.00..._____

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(remember to put your card number on the reverse of the cheque)

Mail to:
The Thompson Partnership
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Bramshall,
UTTOXETER,
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WindowShare (France)

** Paint Shop (Pro) & ImageCommander **

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Remplacez le soulignement par les renseignements demandés.
Imprimez cette fiche, et adressez le tout avec votre règlement à :

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B.P. 2078
57051-METZ cedex 2
France
Fax : (+33)87 32 37 75
Vox : (+33)87 30 85 57
Minitel : 3615 WinShare
(boutique LICENSEWARE)

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Paint Shop Pro est désormais livré avec 30 images de qualité professionnelle au format JPEG.

ImageCommander est livré avec 100 images de qualité professionnelle au format WMF.

Quantité	Nom du produit	Prix Unitaire H.T.	Prix Unitaire TTC	Total Produit
_____	Paint Shop	252.10 FF	299 FF	_____
_____	Paint Shop Pro	420.75 FF	499 FF	_____
_____	ImageCommander	252.10 FF	299 FF	_____
_____	Paint Shop & ImageCommander	378.60 FF	449 FF	_____
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GERMAN VERSION ONLY!!

In Deutschland wird eine deutsche Version von Paint Shop Pro als Standardsoftware mit Handbuch angeboten. Im Kaufprels (empf. VK Incl. MwSt 179,-DM) ist die Benutzung der Supporthotline bei auftretenden Problemen enthalten. Bezugsadresse (auch für Händler):

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ImageCommander

ImageCommander is designed to be your command center for image management and manipulation. It consists of all the necessary commands to manage your image files.
Features include:

Organizing your images into albums. Arrange the album using drag and drop or one of many sort options.
Catalog the images using keywords and comments for future searches.
Scan for all the images on your system to hunt down those unneeded, space wasting images.
View your images full screen or in a configurable slide show.
Activate your favorite editor to change the image.
Print your album as a catalog.
Support for 21 different file formats.
Convert your image file to another format.
Images of an album may come from different directories and different drives.
Special support for removable disks and CD Roms allows you to track your images and have ImageCommander tell you which disk you need.
Move, Copy, or Rename the original image file.

And best of all, when you purchase Paint Shop or Paint Shop Pro you can buy ImageCommander at a reduced price.

Paint Shop Pro

Paint Shop Pro is a Windows program that will allow you to work with multiple images at a time. With Paint Shop Pro you can display, convert, alter, scan and print images. In addition, it is a screen capture utility.
Paint Shop Pro supports the file formats; BMP, CLP, CUT, DIB, EPS, GIF, IFF, IMG, JAS, JIF, JPG (JPEG), LBM, MAC, MSP, PCD (Kodak Photo CD), PIC, PCX, RAS, RLE, TGA, TIFF, WMF and WPG. Paint Shop Pro includes a batch conversion for those large conversion jobs.
Scan your images directly into Paint Shop Pro using any TWAIN compliant scanner. Make your adjustments, then save the image to exactly the file type you will need.
Add image support to your other applications with Paint Shop Pro's OLE server support.
Paint Shop Pro displays images in many ways, including zooming in and out.
Altering the image includes flipping, mirroring, rotating in one degree increments, resizing, resampling, cropping, adding a border and 19 standard filters. Paint Shop Pro supports user defined filters to allow you to create, edit, delete and apply your own filters.
You can also work with the colors of an image by adjusting the brightness/contrast, highlight/shadow, gamma correction, red/green/blue. Alter the colors by greyscaling, solarizing, creating a negative. Palette manipulation allows you to change individual color values, save and load palettes. Change the image type by increasing or decreasing the color depth.
Shareware Magazine Editor's Choice
Winner of the Shareware Industry Awards - Best Graphics Application

Paint Shop

If you find Paint Shop Pro is more than you need, you may find Paint Shop the perfect solution.
Paint Shop is a Windows program that will display, convert, alter and print images. In addition, it is a screen capture utility. It supports the file formats; BMP, CUT, DIB, GIF, IMG, LBM, MAC, MSP, PCX, PIC, RLE, TGA, TIFF, and WPG. Paint Shop displays images in a

window or full screen. Altering the image includes flipping, mirroring, rotating, resizing and cropping. Adjust colors by changing brightness/contrast or red/green/blue. Create greyscales and negative images. Change the image type by decreasing the color depth.
Shareware Magazine Editor's Choice

Professional Capture Systems

PCS is a combination of both Windows and DOS programs that will simplify screen capturing.
The Windows program, WinCapture, allows for the capturing of a defined area, full screen, window, or client area. The capture can be sent to any combination of the clipboard, printer and disk. Numerous image formats are supported. Requires Windows 3.0 or greater.
The DOS program, DosCapture, will allow you to capture standard and extended VGA text modes and standard VGA graphics modes. Captures are saved to PCX files. DosCapture requires a 286 or better and VGA.
Shareware Magazine Editor's Choice

PerfectKeys

Written by Goldsmith Communications and published by JASC, Inc.
PerfectKeys is an editing enhancement for WordPerfect (ver. 5.0 or 5.1) for DOS. Editing time is saved by using single keystroke commands, reachable from the "home" position, for common WP commands. Many of these would normally require several key strokes or even menu selections. Some of the tasks that are simplified are: cursor movement, block/change various amounts of text, transposition, apply styles, select fonts, switch keyboards, and much more. Extensive on line hlep includes WP manual index.

The Menu Bar

The menu bar provides a means for you to select from the various options available in Paint Shop Pro. When you select one of the options from the menu bar, a "pull-down" sub menu of functions appears.

How to Use The Menu Bar With a Mouse

To pull down a menu, use the mouse to move the cursor pointer to a menu selection and click anywhere on it. Once the sub menu is displayed, use the mouse cursor to point to the selection of your choice and click on it to make your selection.

How to Use The Menu Bar With The Keyboard

All menu selections have corresponding shortcut key strokes you can use instead of using the mouse. You can use these in the following manner:

To pull down a menu, press the "Alt" key and the underlined character in the menu bar selection. Then, press the underlined character identifying the function of your choice. Or you can use an arrow key to highlight the selection of your choice and then press "Enter".

Paint Shop Pro contains a number of "Hot Keys". To command a function directly, without pulling down a sub menu, press the key combination directly from the Paint Shop Pro screen. For example, to select "File" - "Open" directly from the Paint Shop Pro window, you can press "Alt"-"O" to display the "File Open" dialog box without going through the Menu Bar selections.

The Status Bar

The Status Bar, at the bottom of the Paint Shop Pro window, displays information about the active image or the current activity of an option's process.

Status Bar - (Active Image)

Normally, the Status Bar displays information about the active image. When you make changes to the active image, the Status Bar changes to reflect the new information. The information that is displayed is:

Image Size and Color Capacity

The numbers displayed describe the image's width and height in pixels, and color capacity. Remember, the size is the size of the image, not the size of the image's window. Color capacity is the number of possible colors the format of the image allows, though the current image might have fewer.

Cursor Position

When you move the cursor over the active image, the cursor's position coordinates in pixels, relative to the extreme top left corner, are displayed. As you move the cursor, the position coordinates constantly change to reflect the current position. When you move the cursor out of the image area, coordinate information is not displayed.

When you are defining an area or adjusting your defined area, the Cursor Position displays the beginning and ending x-y coordinates as well as the size of the area.

Memory Used By The Active Image

This displays the amount of memory currently used by the active image.

Available Memory

This displays the amount of free memory your system has available.

Status Bar- (During Action Activity)

Many of Paint Shop Pro's options display status information while the operation is in progress. Status information is normally only supplied for lengthy operations. When one of these operations is selected, the Status Bar changes to display information about the status of the operation. The following describes the various sections of the status bar when it is used as a progress indicator.

How To Abort The Process

You can abort the operation before it is completed by pressing the "Esc" key.

Operation Description

A description of the type of operation you have put into action will be displayed while the operation is being conducted.

Operation Progress

During lengthy operations, a moving bar will display the progress of the operation.

Image Windows

The image windows that are displayed in the Paint Shop Pro window can be active or inactive. The active image window has the input focus. This means that any choices that you make will be sent to this image window.

On systems that use a palette based video system (ex. a 256 color video system), Paint Shop Pro will maintain the proper colors for the active image window. The inactive image windows' colors may be wrong, since the total number of colors used by all image windows may exceed the number of colors that your video system is capable of managing at one time. In this case Paint Shop Pro will attempt to match the inactive image's colors with those of the active image window to represent its true colors as closely as possible.

Active Image Window

Only one image window may be the active image window, all others are considered inactive image windows. All functions of Paint Shop Pro are done to the active image window.

Inactive Image Window

All image windows that are displayed, except the active image window, are considered inactive image windows. These windows may be selected at any time as the active image window simply by clicking anywhere on the image window.

Image Window Title Bar

The Image Title Bar displays the file name of the image and the current zoom factor.

The zoom factor is expressed as a proportion in pixels, such as "1:3". If you substitute the word "represents" for the ":", the expression "1:3" becomes "one pixel represents three pixels". This is an example of zooming out so that only one pixel is displayed for three of the original pixels in the image.

If more than one image window is opened, the title bar for the active window will be of a distinguishable color or intensity.

Image Icons

You can click on an image window's minimize button to minimize the image window to an icon. The name associated with an icon is the name and zoom factor contained in its image window title bar. Just double click an image icon to restore it as an image window.

The icons will normally be grouped along the bottom of the Paint Shop Pro window. You can move each image icon to any location within the Paint Shop Pro window. However, an icon could become hidden behind another image. If this happens, you can use the menu option "Window" - "Arrange Icons" to automatically regroup all image icons back to the bottom of the window.

Icon Forms
An icon's form corresponds to its image's color capacity.

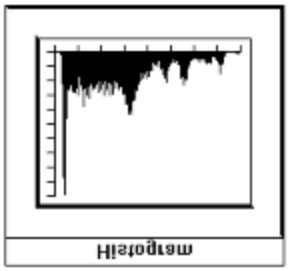
Black and White Image
This icon represents a 1 bit-per-pixel image.

Grey Scaled Image
This icon represents a 4 or 8 bits-per-pixel image that contains nothing but greys.

Palette Based Image
This icon represents a 4 or 8 bits-per-pixel image that is not greyscaled.

True Color Image
This icon represents a 24 bits-per-pixel image.

The Histogram



The Histogram displays a graph of the luminance of the active image. Luminance is often thought of as brightness. The colors that make up your image can have various brightness of a color, such as dark red and bright red. By viewing the histogram of an image, you can see how the brightness of the various colors are distributed. This can help you in making decisions when you want to adjust the colors of the image, such as adjusting the brightness and contrast, the highlight and shadowing, etc.

The histogram may be hidden or displayed depending on whether you need its information. The "View" pull-down menu has an option that will change between "Show Histogram" and "Hide Histogram" to allow you to toggle the displaying of the histogram.

By keeping the histogram hidden, Paint Shop Pro will run faster since the histogram for the image will not have to be recalculated each time you make a change to the image.

You can move the Histogram anywhere on the screen. It is not confined to the Paint Shop Pro window. Paint Shop Pro remembers if the Histogram is shown or hidden when you close it. The next time you start Paint Shop Pro, the Histogram will be in the same state and position as when Paint Shop Pro was last closed.

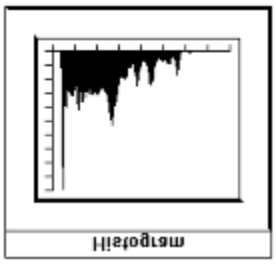
The Histogram Display

The histogram displays vertical lines in an x-y graph style of presentation. Each vertical line represents the magnitude of a specific color, shade, or greyscale.

The horizontal position of a line corresponds to a specific color, shade, or greyscale. The range of these colors are from 0 to 255. Each tick on the horizontal axis represents 32. Thus the first tick is 0, the second is 32, the third is 64, etc.

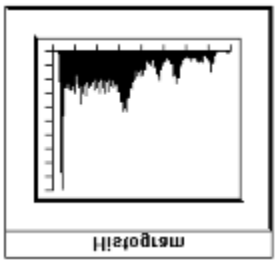
The vertical height of a line represents a percentage. At least one color within an image will have the greatest frequency. We will refer to this color as the base color. The base color will be represented with a line going all the way to 100 percent. The remaining colors are represented by vertical lines that indicate a percentage relative to the base color. Each tick on the vertical axis represents 10 percent.

Using the Histogram Display



Example - A Histogram of a Dark Color Image

Notice the histogram lines for this image indicate most of its colors are toward one end of the spectrum. This image is a rather dark image. By using this information we can see that we have room to increase the image's brightness without pushing any of the brighter colors off the scale. In addition, once we have the brightness closer to the center, we can increase the contrast to spread the image's colors over the entire range.



Example - A Histogram of the Dark Color Image Brightened

When the brightness was increased a little, the histogram lines shifted toward the right side. Then when contrast was increased a little as well, the histogram lines spread in both directions without pushing off the scale.

The Tool Box

The Tool Box gives you a convenient way to activate special editing operations such as display magnification, move, define an area, move a defined area, or copy a defined area. If an existing condition does not allow the use of a specific tool, it will not be activated when you click on it. For example, you cannot use the Adjust Defined Area or Copy Defined Area tool until you have defined an area of an image with the Area Selection tool.

If the Tool Box is not displayed on the screen, the "View" pull-down menu will display the option "Show Tools". If the Tool Box is displayed on the screen, the "View" pull-down menu will display the option "Hide Tools".

You can move the Tool Box anywhere on the screen. It is not confined to the Paint Shop Pro window. You can hide the Tool Box from the screen display if you want. You can re-display it anytime later. Paint Shop Pro remembers if the Tool Box is shown or hidden when you close it. The next time you start Paint Shop Pro, the Tool Box will be in the same state and position as when Paint Shop Pro was last closed.

If the Tool Box is not displayed, you can move between available tools by pressing the space bar.

If the Tool Box is displayed, you can select a tool either by clicking on the tool you want to use, or by pressing the space bar to move between available tools.

Once a tool has been selected, any time the cursor is over the active image the cursor will change shape to identify the tool you are using.

The Arrow Tool

The Magnifying Glass Tool

The Hand Tool

The Area Selection Tool

The Adjust Defined Area Tool

The Copy Defined Area Tool

The Arrow Tool

This is the default selection of the Tool Box. It gives you the arrow cursor used to point and select various options. There is no operation of the Arrow Tool other than its use as the default cursor pointer.

The Magnifying Glass Tool

Use the Magnifying Glass tool to increase or decrease the zoom factor of an image display. The increments or decrements of the zoom factor are by steps of one. The cursor pointer changes to a magnifying glass anytime you move the cursor over the active image. Each change of magnification changes the image window's title bar to reflect the current zoom factor.

How to use the Magnifying Glass tool

1. Click the Magnifying Glass tool in the Tool Box.

2. Move the cursor pointer to the area of the image you want to increase or decrease the display.

   Click the left mouse button to increase the magnification. Each time you click the left mouse button, the magnification increases to the next higher increment of magnification. The location of the magnifying glass over the image determines the approximate center of the resulting image. When the image becomes displayed larger than the image window, you can scroll the image using the scroll bars or use the Hand Tool.

   Click the right mouse button to decrease the magnification. Each time you click the right mouse button, the magnification decreases to the next lower decrement of magnification. The location of the magnifying glass over the image determines the approximate center of the resulting image. When the image becomes displayed smaller than the image window, you must move the cursor until it becomes a magnifying glass to be sure you are over the image area.

3. To return to the normal 100% size image, reverse the magnification until you reach the normal size. You can also use the menu selection "View" - "Normal Viewing (1:1)" as an alternate way to return to normal size.

The Hand Tool

Use the Hand tool to move the display of the image within its window. Whenever the image is larger than its window, you can move the image in the same way you would move a piece of paper around on a table. The Hand tool works much like the scroll bars, except you can also move the image diagonally. The cursor pointer changes to a hand anytime you move the cursor over the active image.

How to use the Hand tool

1. Make sure the image's window is smaller than the image. The window will be smaller than the image if the image window has scroll bars. Click the Hand tool in the Tool Box.

2. Move the cursor pointer over the active image.

3. Hold down the left mouse button and drag the cursor in the direction you want to move the image.

4. Release the mouse button.

The Area Selection Tool

Use the Area Selection tool to define an area of an image that you want to copy, duplicate, or crop. You can use this tool only when the image is displayed in the normal 100% size. The cursor pointer changes to a cross-hair anytime you move the cursor over the active image.

While you are defining an area, the Status Bar displays the beginning and ending x-y coordinates as well as the size of the defined area.

Use the left mouse button to define an area.
Use the right mouse button to remove the definition. (This works also when either the Adjust Defined Area tool or the Copy Defined Area tool are the selected tools.)

How to use the Area Selection tool

1. Click the Area Selection tool in the Tool Box.

2. Move the cursor pointer to the upper left corner of the area you want to define.

3. Hold down the left mouse button to anchor the corner point.

4. Drag the cursor pointer to the lower right corner of the area you want to define.

   If part of the image area you want to select is beyond the confines of its window, scroll more of the image into the area by dragging the Area Selection cross-hair against the edge of the window.

5. Release the mouse button. The selected area is defined by a dashed border.

The Adjust Defined Area Tool

Use the Adjust Defined Area tool to move or resize the defined area. Note that using the tool makes no changes to the image, rather it allows you to make changes to the area that you have previously defined. You can use this tool only after first having defined an area with the Area Selection tool. When the cursor pointer is on the border, corner, or inside the image, it changes to appropriate arrow shapes, depending upon its location.

Use the left mouse button to alter the defined area.
Use the right mouse button to remove the definition.

How to use the Adjust Defined Area tool

1. Click the Adjust Defined Area tool in the Tool Box.

2. Move the cursor pointer to the part of the defined area you want to move or size.

3. The appropriate arrow cursor will be displayed.

The Crossed Arrow
This cursor pointer allows you to move the defined area without changing its size.

1. With the crossed arrow displayed, hold down the left mouse button.

2. Drag the defined area to a different position without changing its size.

3. Release the mouse button.

The Double Arrow - Vertical or Horizontal
This cursor pointer allows you to move one side of the defined area. You can move the side the arrow is touching.

If the arrow is vertical, you can change the vertical size of the defined area.
If the arrow is horizontal, you can change the horizontal size of the defined area.

1. With the arrow displayed, hold down the left mouse button.

2. Drag the side the arrow is touching to change the defined area.

3. Release the mouse button.

The Double Arrow - Angled
This cursor pointer allows you to move two adjacent sides of the defined area. You can move the corner the arrow is touching.

1. With the arrow displayed, hold down the left mouse button.

2. Drag the corner the arrow is touching to change the size of the two adjacent sides. (The opposite corner remains in place.)

3. Release the mouse button.

The Copy Defined Area Tool

Use the Copy Defined Area tool to copy a defined area to a different area of the image. By using this tool you will be altering the image, not simply moving the defined area. You can use this tool only after having first defined an area with the the Area Selection tool. Notice when the cursor pointer is on the border, corner, or inside the image, it changes to a crossed arrow shape.

Use the left mouse button to copy the defined area.
Use the right mouse button to remove the definition.

How to use the Copy Defined Area tool

1. With the crossed arrow displayed, hold down the left mouse button.

2. Drag the defined area to a different position.

3. Release the mouse button.

Dialog Boxes

Dialog boxes give you the ability to interact with Paint Shop Pro to give it information about how you want it to operate.

You can respond in a dialog box in various ways. You can use the mouse pointer to make incremental changes to existing values with scroll bars, type new values directly into edit boxes, press the "Tab" key to jump from selection to selection, or press "Alt" and the underlined character to move directly to a selection.

Most of the dialog boxes in Paint Shop Pro have many elements in common. Elements such as: edit boxes, check boxes, option buttons, scroll bars, list boxes, and command buttons are used in the same way wherever they appear.

When an option in a dialog box is dimmed, it is not available under the prevailing conditions.

Edit Boxes and Text Boxes

An edit box or text box is one into which you can type information. When you move the mouse pointer to an edit box, an insertion point (a flashing vertical bar) appears where you click the mouse. The characters you type begin at the insertion point.

List Boxes and Drop Boxes

A list box displays a listing of available choices. If there are more choices than can fit into a list box, you can use the scroll bar to move the unseen choices into view. Some list boxes may be presented as drop boxes. When you select the arrow on its end, a list of available choices appears in a drop-box list. To select a listed choice, click on your selection to highlight it.

Check Boxes

Check boxes offer a list of options you can choose to be active or not. You can select as many check-box options as you want by clicking the mouse pointer on each one. When a check box is selected, it contains an "X". Each time you click on a check box it reverses the existing condition.

Option Buttons

Option buttons offer a list of choices from which you can choose only one. You can select only one option from the list of choices. You can change a selection by selecting a different option button in the same list. A selected option button contains a black dot. Option buttons are round and are commonly refered to as radio buttons.

Scroll Bars

Use the scroll bars to view unseen portions of a screen, list, etc., and scroll values displayed in associated edit boxes. Use the scroll arrows to continuously move into view unseen portions of a screen, list, etc., and to continuously scroll values displayed in their edit boxes. Use the scroll button to make changes in increments corresponding to the distance it is moved.

Command Buttons

After you finish making selections, adjusting values, or typing information, you cause your selections, value adjustments, etc., to be activated by selecting the appropriate command button (usually "OK").

If you change your mind and do not want your selections to be activated, you can click the "Cancel" command button to back out of a dialog box with your selections abandoned.

The "OK" Command Button

You click the "OK" command button (or press "Enter") to activate selections you have made for

the associated dialog box.

The "Cancel" Command Button
You click the "Cancel" command button to cancel any selections you may have made for the associated dialog box and back out to the previous screen.

Paint Shop Pro Keyboard "Hot-Keys"

The following keys are shortcut "hot keys" and may be used instead of making selections through the Menu Bar:

Function	**Key(s)**
File-Open	Ctrl+O
File-Save As	Ctrl+S
File-Delete	Delete
File-Print	Ctrl+P
Edit-Undo	Ctrl+Z
Edit-Copy	Ctrl+C
Edit-Paste	Ctrl+V
View-Full Screen	Shift+F
Image-Flip	Ctrl+F
Image-Mirror	Ctrl+M
Window-Tile	Shift+F5
Window-Cascade	Shift+F4
Help	F1

Scrolling Keys:
The cursor keys may be used for scrolling an image in small increments. Scrolling an image may be done in either windowed mode or full screen mode. You can hold the cursor key down for continuous movement.

Right Arrow - Moves toward the right side of the image.
Left Arrow - Moves toward the left side of the image.
Up Arrow - Moves toward the top of the image.
Down Arrow - Moves toward the bottom of the image.

To scroll an image in larger increments use the following keys:

End - Moves toward the right in larger increments.
Home - Moves toward the left in larger increments.
Page Up - Moves toward the top in larger increments.
Page Down - Moves toward the bottom in larger increments.

Object Linking and Embedding

Paint Shop Pro is a Object Linking and Embedding (OLE) server. This means that it can be used by OLE clients (such as Microsoft Word for Windows) to obtain images to be placed in documents.

For information about placing objects (such as images) in your documents, see the user's manual for your OLE client application.

When Paint Shop Pro is used as an OLE server the "File" Menu options may change. The following changes take place.

When an image in Paint Shop Pro is an embedded object:

The File menu will have a new menu option called "Update...". This option will update the image in your client document.

The File menu option Save As will be changed to Save Copy As. The functionality of the menu option remains the same. But the connection between the object in the client document and the image in Paint Shop Pro will be broken.

When an image in Paint Shop Pro is a linked object:

No changes to the File menu takes place. But each time the image is changed, the object in the client document will be changed to reflect the new image.

If the image is saved using a new filename, the client document will be updated to follow this new filename.

File Menu

Use the scroll bar to see entries not currently visible in the Help window.

Menu Options

Open
Close
Save As
Delete
Acquire
Select Source
Print
Printer Setup
Batch Conversion
Preferences - Activate Capture
Preferences - File Saving
Preferences - New Windows
Preferences - Undo
Exit
List of Most Recently Opened Files

Associated Dialog Boxes

The "Open" Dialog Box
The "Info" Dialog Box
The "File Save As" Dialog Box
The "Print" Dialog Box
The "Page Setup" Dialog Box
The "Print Setup" Dialog Box
The "Batch Conversion" Dialog Box
The "File Saving" Dialog Box
The "New Windows" Dialog Box

File - Open

Use this selection to open an image file and display it on the screen.

How to Open an Image File

1. Select "File" - "Open". This opens the "Open" dialog box.

2. Change to the drive and directory where your image resides by double clicking the drive or directory in the "Directories:" or the "Drives:" list boxes.

3. Select a file name extension from the "List Files of Type:" for the type of files to be displayed in the "File Name:" list box. Use the scroll bar to display any file types that are scrolled off the list.

   The "List Files of Type:" has a dual functionality:
   It changes the entry in the "File Name:" edit box so the files listed in the "File Name:" list box are the files in the current directory that match the file name extension.

   It allows you to explicitly tell Paint Shop Pro to open the image you select using that file format, no matter what the actual extension of the file name is. By using the "All Files (*.*)" option in the "List Files of Type:" list box, you are telling Paint Shop Pro to open the image using the format that corresponds to the file name extension.

4. Highlight the file you want to open by clicking on the file name in the "File Name:" list box. Use the scroll bar to display any file names that are scrolled off the list.

   Once you have highlighted a file, you may click the "Info" command button to display the "Info" dialog box. This will display information about properties of the file before you open it. Click "OK", in the Info Dialog Box, to return to the "Open" dialog box.

5. Click "OK" (or press "Enter") to open the highlighted file.

   You can rapidly double click on the file name to open it without having to click the "OK" command button.

The "Open" Dialog Box

"File Name" Edit Box

When you first open this dialog box, the "File Name:" edit box displays the file name extension which corresponds to the image file format that is highlighted in the "List Files of Type:" drop box.

You can type in the file name you want to open (if you know what it is) in this box. You will have to include the complete path with the file name if the "Directories:" display is not the one containing the file.

You can select a file displayed in the "File Name:" list box by clicking the mouse pointer on its file name to highlight it. The highlighted file name will become displayed in the "File Name:" edit box.

"File Name" List Box

Image files listed in the "Files:" list box are those that are located in the directory currently displayed, and have the format extension currently highlighted in the "List Files of Type:" drop box.

If you want to list image files other than those currently listed, you can do this by either:
Selecting a different drive or directory (in their respective boxes), or
Selecting a different image format (in the "List Files of Type:" drop box), or
Both of the above.

Use the scroll bar to display any file types that are scrolled off the list.

You can open a file displayed in the "File Name:" list box by clicking the mouse pointer on its file name and then clicking the "OK command button. (Short cut: you can rapidly double click on the file name to open it without having to click the "OK" button.)

"List Files of Type" Drop Box

All the image file formats that Paint Shop Pro is capable of reading are listed in the "List Files of Type:" drop box. A click on the arrow will drop a list displaying possible selections. Selecting "All files (*.*)" will list all files, even non-image files. You can click the mouse pointer on the type of format you want to open. Use the scroll buttons to display any that are scrolled off the list.

"Directories"

This displays the current directory. If you change the drive and/or the directory (either by using the "File Name:" edit box or the "Directories:" list box and/or the "Drives:" drop box), the "Directories:" display changes accordingly.

"Directories" List Box

The "Directories:" list box displays the directories available. If you want to change to a different directory, double click on the directory of your choice.

"Drives" Drop Box

The "Drives:" drop box displays the current drive you are in. Clicking on the arrow will display all the available drives on your system. Click on the drive you want to change to.

"Info" Command Button

The Info command button displays the "Info" dialog box. This dialog box will display general information about the highlighted file.

The "Info" Dialog Box

"Version"
The format version of the highlighted file will be displayed here.

"Compression"
The file compression routine of the highlighted file will be shown. If the file is not compressed, you will see the word "None".

"Width"
The width of the image in pixels will be displayed.

"Height"
The Height of the image in pixels will be displayed.

"Bits Per Plane"
Image color information is organized in a number of planes. The bits per plane will show how much storage space is used for each plane. The bits per plane times the number of planes will be the bits per pixel indicating the color capacity of the image.

"# of Planes"
The number of planes that the color information of the image file is divided into is displayed (see "Bits Per Plane" above).

"Max # of Colors"
The color capacity of the file is displayed. This is the most number of colors the file can contain, not the number of colors actually in the image.

"File Size"
This is the unopened file size of the image (the amount of disk space required to store the image).

"Unpacked Size"
This is the amount of memory required to display the image. In the case of highly compressed files, this can be much larger than the file size.

File - Close

Use this selection to remove the currently displayed image from memory and the screen.

How To Close An Image File

1. Select "File" - "Close".

   If the image has changed in any way, Paint Shop Pro will display a message box:
   Click the "Yes" command button if you want to save the changes to the image. This will open the "File Save As" dialog box where you can enter the information needed to save the image.

   Click the "No" command button if you do not want to save the changes to the image.

   Click the "Cancel" command button if you change your mind and you do not want to close the image file.

File - Save As

Use this selection to save the current image to a file.

How To Save An Image To A File

1. Select "File" - "Save As". This opens the "File Save As" dialog box.

2. You can change to a different drive or directory by double clicking the drive or directory of your choice in the "Directories:" or the "Drives:" list boxes.

3. Select the format in which you want to save the image from the "List Files of Type:" drop box. Use the scroll bar to display any file types that are scrolled off the list.

4. Select the sub-format (if available) for the type of format you selected from the "File Sub-Format:" drop box. Use the scroll bar to display any file sub-formats that are scrolled off the list.

5. Change the file name if you want. You can do this by highlighting the file name in the "File Name:" edit box, then type in the new name.

   No matter what file name extension you give the file, the name of the file will automatically be changed to the proper file name extension.

6. Click "OK" (or press "Enter") to save the file.

   If the file name you select is already in use by another file, you will be prompted by a message box:

   Click the "Yes" command button if you want to overwrite the existing file with the current image.

   Click the "No" command button to abort the "Save As" process.

The "Save As" Dialog Box

"File Name" Edit Box

When you first open this dialog box, the "File Name:" edit box displays the file name of the current image, but changes the file name extension to match your last "Save As" operation.

If you want the image saved with a different file name, type a new file name in this box. No matter what file name you type in, the file name extension will be changed to match the image format you have chosen.

"File Name" List Box

Image files listed in the "File Name:" list box are those that are located in the directory currently displayed and have the format extension currently highlighted in the "Files of Type:" drop box.

"List Files of Type" Drop Box

All the image file formats that Paint Shop Pro is capable of saving as are displayed in the "List Files of Type:" drop box. A click on the arrow will drop a list displaying possible selections. Use the scroll buttons to display any that are scrolled off the list.

To change between the available formats, click the mouse pointer on the type of format you want to use. The selected format extension will be placed in the "File Name:" edit box.

"File Sub Formats" Drop Box

If the format chosen in the "List Files of Type:" drop box have sub-formats available they will be listed here. Otherwise "None" will be displayed. Click on the desired sub-format.

"Directories"

This displays the current directory. If you change the drive and/or the directory (either by using the "File Name:" edit box or the "Directories:" list box and/or the "Drives:" drop box), the "Directories:" display changes accordingly.

"Directories" List Box

The "Directories:" list box displays the directories available. If you want to change to a different directory, double click on the directory of your choice.

"Drives" Drop Box

The "Drives:" drop box displays the current drive you are saving to. Clicking on the arrow will display all the available drives on your system. Click on the drive you want to change to.

File - Delete

Use this selection to delete an image file from the disk. The file that will be deleted is the file associated with the current image.

How To Delete An Image File

1. Select "File" - "Delete". This opens the "Delete File" message box.

   Click the "Yes" command button to delete the file.

   Click the "No" command button if you change your mind and do not want to delete the file.

File - Acquire

Use this selection to acquire an image from your TWAIN compliant device.

TWAIN is an industry standard developed by the image acquisition industry (makers of scanners, frame grabbers, etc.). This standard allows applications like Paint Shop Pro to call the TWAIN driver supplied with your image acquisition hardware. When the driver is called, a dialog box will be displayed allowing you to make the necessary choices to acquire an image from your hardware. After the hardware has acquired the image, the image will be passed back to the application that called it.

When you install the TWAIN software for your image acquisition device, a file called TWAIN.DLL will be placed in your Windows directory. Paint Shop Pro scans your Windows directory to see if the TWAIN.DLL file exists. If this file exists, the menu items will be available. If there is no TWAIN.DLL in your Windows directory the menu items will be dimmed.

Some software packages that support TWAIN will install a TWAIN.DLL file in your Windows directory even though you may not have a TWAIN compliant device. In this case, both "File" - "Acquire" and "File" - "Select Source" will be available, since Paint Shop Pro has no way of knowing that you do not have a TWAIN compliant device connected to your computer.

How to Acquire an Image

1. Select "File" - "Acquire". This opens the "Acquire" dialog box for your specific device.

2. Make your selection in the "Acquire" dialog box as outlined in its on-line help system, or user's manual. After you have made all of your selections, and the image has been acquired, the image will be displayed in the Paint Shop Pro window.

File - Select Source

Use this selection to choose from the list of TWAIN compliant devices that you have connected to your computer system.

For an overview of TWAIN, refer to the "File"-"Acquire" menu selection.

How to Select a Source

1. Select "File" - "Select Source". This opens the "Select Source" dialog box from the TWAIN.DLL file.

2. The dialog box will display a list box of the available sources. Make your selection and click "OK" (or press "Enter") to select the source.

File - Print

Use this selection to print the current image.

How To Print An Image

1. Select "File" - "Print". This opens the "Print" dialog box.

   Use the "Printer Setup..." command button to change the active printer and/or its options. See the Menu item "File" - "Printer Setup" for a description of setting up your printer.

   Use the "Page Setup..." command button to specify the size and location of the image on the page. This opens the "Page Setup" dialog box.

2. Select the Print Quality that you desire from the drop box.

3. If your printer is capable of making multiple copies, the "Copies" edit box will be available. Enter the number of copies you want printed.

4. Click "OK" (or press "Enter") to start the printing.

The "Print" Dialog Box

"Printer" Display

This displays the active printer. The active printer may be changed by selecting the "Printer Setup..." command button.

"Print Quality" Drop Box

Allows you to specify the print resolution.

"Copies" Edit Box

Allows you to specify how many prints of the image you want. This option is available only if your printer is capable of making multiple copies.

"Printer Setup" Command Button

Allows selection and configuration of the current or a different printer. This will open the "Print Setup" dialog box.

"Page Setup" Command Button

Allows you to change the size and position of the printed image on the printed page. This will open the "Page Setup" dialog box.

The "Page Setup" Dialog Box

Image Display Area
Displays the size and position you select for the printed image.

"Printable Area" Display
The active printer's printable area (for the size and orientation of paper selected) is displayed here. The units shown will be in dimensional system chosen (Inches or Millimeters) as width x height.

"Inches" And "Millimeters" Option Buttons
Select the dimensional system for distance and size measurements (Printable Area display and edit boxes for this dialog box).

"Maintain Aspect Ratio" Check Box
Allows you to change the size of the printed image in proportion (checked) or distorted (unchecked). With aspect ratio maintained, a change in one image dimension will automatically change the other proportionally.

"Use Full Page" Check Box
Allows you to print the image as it will fit on the full page (checked) or as a smaller size (unchecked). Full page is the full printable area of your printer, not the size of the paper. If the Maintain Aspect Ratio box is checked, the image will print as large as possible in proportion, and if unchecked, will distort to fill the full printable area.

"Image Width" And "Image Height" Edit Boxes
You can specify the printed image's size if "Use Full Page" is not selected. You can distort its proportions if "Maintain Aspect Ratio" is not selected. The dimensions will be shown in the units of the dimensional system selected with the Inches or Millimeters option buttons.

"Center on Page" Check Box
The image will print in the center of the page if checked. If unchecked, the position on the page will be determined by the "From Left" and "From Top" edit boxes.

"From Left" And "From Top" Edit Boxes
You can specify the printed image's position on the page if "Center on Page" is not selected. The dimensions will be shown in the units of the dimensional system selected with the Inches or Millimeters option buttons.

File - Printer Setup

This option allows you to select the active printer and allows you to configure the way the active printer should operate.

How To Setup the Printer

1. Select "File" - "Printer Setup". This opens the "Print Setup" dialog box.
2. Make your selections from the options in the "Print Setup" dialog box.
3. Click "OK" (or press "Enter") to keep your new settings.

The "Print Setup" Dialog Box

"Printer" Area

The printers already installed to Windows will be listed here. If multiple printers are installed, you can select which printer will be active for this Paint Shop Pro session.

"Orientation" Area

You may select whether the image will be printed across the shorter dimension (Portrait) or the longer dimension (Landscape) of the paper.

"Paper" Area

Select the paper size you are going to be printing on and where this paper size is located.

"Options" Command Button

Click the "Options..." command button to produce additional dialog boxes containing various options for the selected type of printer. You can change the configuration of a printer's operation for this Paint Shop Pro session.

File - Batch Conversion

Use this selection to convert many images at one time.

How To Make Batch Conversions

1. Select "File" - "Batch Conversion". This opens the "Batch Conversion" dialog box.

2. Select the "Input:" - "Directory" where the input files to be converted reside.

3. Select the files you want to convert from the "Input:" - "Files:" list box. To select random multiple files, hold down the "Ctrl" key when you click on a file name. To select a range of files, highlight the first file by clicking on it, then go to the last file in the range and hold down the "Shift" key while clicking on the last file name.

4. Select the "Output:" - "Directory" where you want the converted files to be placed.

5. Select the "Format" and corresponding "Sub-Format:" from their respective list boxes for which you want the images converted.

6. Click "OK" (or press "Enter").

   While Paint Shop Pro is converting your selected images, it may encounter images that do not meet the requirements of the destination format you have selected. The "File" - "Preferences" - "File Saving" option will allow you to setup the way Paint Shop Pro should work when one of these files is encountered. You can have Paint Shop Pro either ask if changes should be made or have Paint Shop Pro automatically make the changes without asking.

   You may minimize Paint Shop Pro by selecting the minimize button during batch conversion. This allows you to go back to work in other applications while Paint Shop Pro does your conversions.

The "Batch Conversion" Dialog Box

Input Area

"Directory:" Display

This displays the current drive and directory. If you change the drive and/or the directory by using the "Directory:" list box, the "Directory:" display changes accordingly.

"Directory:" List Box

Select the drive and the directory where the image files reside that you want to convert. The [..] selection is used to back up a directory level in the path.

"Files:" List Box

The image files that reside in the directory named in the Directory: display will be listed. Highlight the files that you want to convert.

Output Area

"Directory:" Display

This displays the drive and directory where the converted files are to be placed. If you change the drive and/or the directory by using the "Directory:" list box, the "Directory:" display changes accordingly.

"Directory:" List Box

Select the drive and the directory where the converted image files should be placed. The [..] selection is used to back up a directory level in the path.

"Format:" Drop Box

Select the file format you want for the converted images.

"Sub-format:" Drop Box

Select the file sub-format you want for the converted images.

File - Preferences - Activate Capture

Use this selection to determine the way capturing operates. You can select whether capturing operates immediately after selecting the type of capture or after pressing the right mouse button.

How To Set File - Preferences - Activate Capture

1. Select "File" - "Preferences" - "Activate Capture". An additional pulled-down menu appears.

2. Select the option that you want.

Immediately after Selection
This option will cause Paint Shop Pro to begin the capture immediately (after making a "Capture" menu selection). This option can speed up your capturing procedure if it is not necessary to rearrange windows before the capture begins.

On Right Mouse Click
This option will cause Paint Shop Pro to delay the capture until you click the right mouse button (after making a "Capture" menu selection). This option gives you the opportunity to rearrange the windows, if necessary, before the capture begins.

File - Preferences - File Saving

Use this selection to determine the way Paint Shop Pro should operate while it is saving files.

How To Set File - Preferences - File Saving

1. Select "File" - "Preferences" - "File Saving". This opens the "File Saving" dialog box.
2. Select the options that you want.
3. Click "OK" (or press "Enter").

The "File Saving" Dialog Box

"ASK before changing ....." Check Boxes

When you save an image with Paint Shop Pro, you are required to select the file format to use during saving. The file format you select may not be capable of holding your present image. In this case, Paint Shop Pro can alter the image so it is compatible with the format you have selected. Paint Shop Pro can ask if these changes should be made, or automatically make the changes without asking.

Place a check in the appropriate box if you would like Paint Shop Pro to ask you before it makes these changes to your image.

"ASK about saving ....." Check Boxes

While Paint Shop Pro is closing image windows, it will check to see if the image has changed and ask you if the changes should be saved. To give you the true representation of what the image looks like, the image may need to be updated. If you have many image windows open at the same time, this can become a lengthy process. If you know that you will not want to save any changes you can speed up this process by having Paint Shop Pro ignore the checking for changed images.

You have the option to disable this checking when you close Paint Shop Pro with the "File"-"Exit" (or the system menu option "Close"), or when you close all the image windows with "Window" - "Close All". Place a check in the appropriate box if you would like Paint Shop Pro to ask about images that have changed.

"JIF/JPG Compression Level" Scroll Bar and Edit Box

The JPEG file format is a "lossy" file format. This means that some of the image's information is discarded during compression to achieve higher levels of compression. The higher the compression level you select, the more image information will be discarded to achieve higher compression ratios. At lower compression levels you can achieve compression ratios that are 10 to 20 times better than using a lossless compression such as PCX or TIFF, while still maintaining all the necessary information to return an image that appears identical to the original image.

To determine the compression level that you feel returns an acceptable image start with 10 and increase by 10 each time. After you have saved the image using 10 different levels, open all the images and decide what is the maximum compression level that returns an acceptable image.

To change the rate of compression, enter the value you want in the edit box. Or, alternately, you can use the mouse with the scroll bar to scroll the value you want in the edit box. Acceptable values are from 1 to 99.

"DPI to be written ....." Edit Boxes

Some file formats allow the dots-per-inch (DPI) information to be saved to the file. This information is not used by Paint Shop Pro, but may be used by other applications. The DPI information is normally used to decide how large the image will be when displayed or printed. As an example, an image that has a width of 600 pixels across by 600 pixels down and has a DPI of 300 would be displayed in a word processor as 2" by 2" image. This is calculated by taking the width (600) and dividing it by the DPI (300). By changing the DPI information to 150 the same image would be displayed in the same word processor as a 4" by 4" image.

File - Preferences - New Windows

When Paint Shop Pro conducts an operation on an image such as resize, greyscale, etc., the new image that is created can be placed in a new window or it can replace the existing image in the current window. Use this selection to determine which options, when applied, will create new image windows or will replace the image in its existing window. You can select or unselect various options from the check boxes in the "New Windows" dialog box.

Note: If a new window is not created, Edit-Undo may be used to undo an operation.

The "New Windows" Dialog Box

"Image Menu:" Area

Place a check in the box of any Image Menu option that, when executed, should create a new window. Leave boxes unchecked of any Image Menu option that should replace the image in the existing window.

"Colors Menu:" Area

Place a check in the box of any Colors Menu option that, when executed, should create a new window. Leave boxes unchecked of any Colors Menu option that should replace the image in the existing window.

File - Preferences - Undo

When an operation you have selected creates a new image, and that new image is placed in the existing window, a copy of the current image is saved before creating the new image. After the new image is displayed in the current window, you can then "undo" the changes with the "Edit"- "Undo" option. This selection allows you to select where the "undo" image should be retained.

How To Set File - Preferences - Undo

1. Select "File" - "Preferences" - "Undo". An additional pulled-down menu appears.

2. Make the selection you want.

   If your computer does not have a lot of memory, it may be better to select the "To Disk" option. If your hard disk does not have a lot of available free disk space, it may be better to select the "Disabled" option.

File - Exit

Use this selection to close Paint Shop Pro.

How To File - Exit

1. Select "File" - "Exit". This will close this session of Paint Shop Pro.

   See the menu option "File" - "Preferences" - "File Saving" to configure the way Paint Shop Pro will ask about images that have changed.

   If the image has changed in any way, Paint Shop Pro will display a message box:

   Select "Yes" if you want to save the changes to the image. This will open the "File Save As" dialog box so you can save the image.

   Select "No" if you do not want to save the changes to the image.

   Select "Cancel" if you change your mind about closing Paint Shop Pro. Any images that have already been closed will remain closed.

List of Most Recently Opened Files

The "File" pulled-down menu will display a list of the last four files that have been opened. You can use this listing as a fast way to open one of the last four files that have been opened without the need for using the "File" - "Open" option.

Edit Menu

Use the scroll bar to see entries not currently visible in the Help window.

Menu Options

Undo
Copy
Paste
Empty Clipboard

Associated Dialog Boxes

The "Import Meta Picture " Dialog Box

Edit - Undo

Use this selection to retrieve the image before the last operation. This option will not be available if the "File" - "Preferences" - "Undo" is selected to be "Disabled".

How To Edit - Undo

1. Select "Edit" - "Undo".

Edit - Copy

Use this selection to copy the currently defined area to the Windows' clipboard. If there is no defined area, the entire image will be copied to Windows' clipboard.

How To Edit - Copy

1. Display the image you want to copy as the current image.

   If you want to copy the entire image, don't define an area, just go to the next step.

   If you want to copy only a specific area, define the area you want to copy with the Area Selection Tool.

2. Select "Edit" - "Copy".

Edit - Paste

Use this selection to paste the image residing in Windows' clipboard to the Paint Shop Pro window. Paint Shop Pro supports the clipboard formats of Bitmap, DIB (Device Independent Bitmap), and Picture (Windows Meta File). When Paint Shop Pro pastes from the clipboard it looks for a compatible format in the following order: DIB, Bitmap, Picture.

How To Edit - Paste

1. Select "Edit" - "Paste".

   If the image that is pasted in is a Picture (Windows Meta File) you will be prompted by the "Import Meta Picture " dialog box to enter the image's width and height. If the original image's width and height are known, they will be displayed in the dialog box for your reference.

The "Import Meta Picture" Dialog Box

"Original Size" Area

"Width in pixels:" Display
The width (in pixels) of the original image, if known, will be displayed for your reference.

"Height in pixels:" Display
The height (in pixels) of the original image, if known, will be displayed for your reference.

"Import Size" Area

"Width in pixels" Edit Box
The import width (in pixels) can be left the same as the original's or changed.

"Height in pixels" Edit Box
The import height (in pixels) can be left the same as the original's or changed.

Edit - Empty Clipboard

This option is available if a supported Windows' image format is residing on the clipboard. Having an image on the clipboard can waste a significant amount of your available memory. Use this selection to empty the contents of Windows' clipboard without having to activate the clipboard viewer.

How To Edit - Empty The Clipboard

1. Select "Edit" - "Empty Clipboard".

View Menu

Use the scroll bar to see entries not currently visible in the Help window.

Menu Options

Normal Viewing (1:1)
Zoom In
Zoom Out
Full Screen
Hide Histogram
Show Histogram
Hide Tools
Show Tools

View - Normal Viewing (1:1)

Use this selection to return Paint Shop Pro to normal image size viewing.

How To View - Normal Viewing (1:1)

1. Select "View" - "Normal Viewing".

View - Zoom In

Use this selection to zoom in on the image. You may select a "Zoom In" factor from 1:1 to 10:1. 1:1 is the normal view. 10:1 is the greatest zoom-in factor.

The zoom-in factor is expressed as a proportion in pixels, such as "3:1". If you substitute the word "represent" for the ":", the expression "3:1" becomes "three pixels represent one pixel". This is an example of zooming-in so that three pixels are displayed for only one of the original pixels in the image.

When you use this menu option to zoom in, the image remains centered from its original position. (This is different from the use of the Tool Box's Magnifying Glass. The location of the Magnifying Glass over the image determines the approximate center of the resulting zoomed-in image.)

How To View - Zoom In

1. Select "View" - "Zoom In". This opens another pulled-down menu of zoom-in factors.

2. Select the Zoom In factor by clicking on the one you want. Once you have the zoomed-in image displayed:

   The current tool and cursor will change to the magnifying glass.
   The left mouse button will make the zoomed image larger.
   The right mouse button will make the zoomed image smaller.

View - Zoom Out

Use this selection to zoom out from the image. You may select a zoom-out factor from 1:1 to 1:10. 1:1 is the normal view. 1:10 is the greatest zoom-out factor.

The zoom-out factor is expressed as a proportion in pixels, such as "1:3". If you substitute the word "represents" for the ":", the expression "1:3" becomes "one pixel represents three pixels". This is an example of zooming out so that only one pixel is displayed for three of the original pixels in the image.

How To View - Zoom Out

1. Select "View" - "Zoom Out". This opens another pulled-down menu of Zoom Out factors.

2. Select the Zoom Out factor by clicking on the one you want. Once you have the zoomed-out image displayed:

   The current tool and cursor will change to the magnifying glass.
   The left mouse button will make the zoomed image larger.
   The right mouse button will make the zoomed image smaller.

View - Full Screen

Use this selection to display the image in normal viewing mode outside Windows.

How To View - Full Screen

1. Select "View" - "Full Screen". Pressing a key (one that is not used for scrolling) will return you to Windows.

   If the image is larger than your screen it can be scrolled using any of the scrolling keys.

Hide Histogram or Show Histogram

Use this selection to determine whether the Histogram will be displayed on the screen or not.

How to Toggle the Histogram

If the Histogram is not displayed on the screen, the "View" pull-down menu will display the option "Show Histogram"

1. Select "View" - "Show Histogram".

If the Histogram is displayed on the screen, the "View" pull-down menu will display the option "Hide Histogram".

1. Select "View" - "Hide Histogram".

By keeping the histogram hidden, Paint Shop Pro will run faster since the histogram for the image will not have to be recalculated each time you make a change to the image.

Hide Tools or Show Tools

Use this selection to determine whether the Tool Box will be displayed on the screen or not.

How to Toggle the Tool Box

If the Tool Box is not displayed on the screen, the "View" pull-down menu will display the option "Show Tools".

1. Select "View" - "Show Tools".

If the Tool Box is displayed on the screen, the "View" pull-down menu will display the option "Hide Tools".

1. Select "View" - "Hide Tools".

If the Tool Box is not displayed, you can move between available tools by pressing the space bar.

If the Tool Box is displayed, you can select a tool either by clicking on the tool you want to use, or by pressing the space bar to move between available tools.

Image Menu

Use the scroll bar to see entries not currently visible in the Help window.

Menu Options

Flip
Mirror
Rotate
Add a Border
Crop
Resample
Resize
Edge Filters
Normal Filters
Special Filters
User Defined Filters

Associated Dialog Boxes

The "Rotate" Dialog Box
The "Select Color" Dialog Box For 2 Colors
The "Select Color" Dialog Box For 16 Colors
The "Select Color" Dialog Box For 256 Colors
The "Color" Dialog Box For 16 million Colors
The "Add a Border" Dialog Box
The "Resample" Dialog Box
The "Resize" Dialog Box
The "Add Noise" Dialog Box
The "Mosaic" Dialog Box
The "Posterize" Dialog Box
The "Apply User Defined Filter" Dialog Box
The "Edit User Defined Filter" Dialog Box
The "Define New Filter" Dialog Box

Image - Flip

This selection turns the current image upside down.

How To Flip the Image

1. Select "Image" - "Flip".

Image - Mirror

This selection creates a mirror image of the current image.

How To Create a Mirror Image

1. Select "Image" - "Mirror".

Image - Rotate

This selection opens a dialog box containing options for the direction and amount of rotation.

How To Image - Rotate

1. Select "Image" - "Rotate". This opens the "Rotate" dialog box.

2. Select the direction and amount of rotation by clicking the appropriate option buttons.

   You can select fixed rotation amounts in 90 degree increments for any capacity image format.

   You can "free" rotate in one degree increments if your image is greyscaled or a 24 bits-per-pixel image. If your greyscaled image is a 4 bits-per-pixel image, Paint Shop Pro will increase it to 8 bits-per-pixel before rotating it.

   Free rotation will create a new larger image to allow space for the entire original image. You can select a color for the border that surrounds the original image.

3. Click "OK" (or press "Enter").

The "Rotate" Dialog Box

"Direction:" Area

"Right" Option Button
The "Right" selection will cause rotation selections to occur in the clockwise direction.

"Left" Option Button
The "Left" selection will cause rotation selections to occur in the counterclockwise direction.

"Degrees:" Area

"90" Option Button
This selection will cause the rotation to be 90 degrees in the direction selected in the "Direction:" area.

"180" Option Button
This selection will cause the rotation to be 180 degrees.

"270" Option Button
This selection will cause the rotation of 270 degrees in the direction selected in the "Direction:" area. The result would be the same as selecting 90 degrees in the opposite direction.

"Free:" Edit Box
This selection is available for greyscaled or 24 bit images only (an image's color depth may be increased to perform the free rotation and later decreased if a lesser color depth is desired). If the "Free" option button is selected, any one degree increment of rotation may be entered in the edit box (from 1 to 359). Free rotation requires that a border be created (see the Border Color section below).

"Border Color:" Area

"Select Color" Command Button
If a border color other than the one displayed above this button is desired, this button will activate a Select Color dialog box. The palette of colors to choose from depends on the color depth of the image being rotated. The available dialog boxes are:
The "Select Color" Dialog Box For 16 Colors
The "Select Color" Dialog Box For 256 Colors
The "Color" Dialog Box For 16 million Colors

The "Select Color" Dialog Box For 2 Colors

"Select the Border Color"

Select the color you want for your border from the displayed palette.

The "Select Color" Dialog Box For 16 Colors

"Select the Border Color"

Select the color you want for your border from the displayed palette.

The "Select Color" Dialog Box For 256 Colors

"Select the Border Color"

Select the color you want for your border from the displayed palette.

The "Color" Dialog Box For 16 million Colors

Palette Display Area

All the different shades of color that are available are displayed. Click the left mouse button in this area to select a border color.

Luminance Display Area

The range of luminance for the shade of color you selected is displayed here. Slide the pointer to the desired luminance for the border color.

"Color|Solid" Display

The results of the color and luminance selections will be displayed.

Color Value Edit Boxes

"Hue"

The numerical value for the hue of the color selected is displayed. A specific hue value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Sat"

The numerical value for the saturation of the color selected is displayed. A specific saturation value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Lum"

The numerical value for the luminance of the color selected is displayed. A specific luminance value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Red"

The numerical value for the red channel of the color selected is displayed. A specific red value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Green"

The numerical value for the green channel of the color selected is displayed. A specific green value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Blue"

The numerical value for the blue channel of the color selected is displayed. A specific blue value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

Image - Add a Border

This option allows you to add a border to an image. You can select the border to be on all sides or any one or combination of sides. You can select the color for the border.

You can repeat this option again and again to create multiple borders of different sizes and colors. With a little practice, you can create some very creative frames for your images.

How To Add a Border

1. Select "Image" - "Add a Border". This opens the "Add a Border" dialog box.
2. Select the "Symmetric" check box to make all the sides the same size. De-select it to make individual sides and sizes.
3. Enter the border size for the sides that should have a border added to them.
4. Select the color you want for the border.
5. Click "OK" (or press "Enter").

The "Add a Border" Dialog Box

"Border Size" Area

"Symmetric" Check Box

A check in this box will make all sides of the border the same size. With this selected, any value for any one of the edit boxes will be duplicated in the remaining boxes.

"Top" Edit Box

The size of the border in pixels across the top of the image may be entered. If the "Symmetric" box is checked, the size will be duplicated in the remaining edit boxes.

"Bottom" Edit Box

The size of the border in pixels across the bottom of the image may be entered. If the "Symmetric" box is checked, the size will be duplicated in the remaining edit boxes.

"Left" Edit Box

The size of the border in pixels across the left side of the image may be entered. If the "Symmetric" box is checked, the size will be duplicated in the remaining edit boxes.

"Right" Edit Box

The size of the border in pixels across the right side of the image may be entered. If the "Symmetric" box is checked, the size will be duplicated in the remaining edit boxes.

"Border Color" Area

"Select Color" Command Button

Clicking on the "Select Color" command button will activate a dialog box displaying the available colors for use as a border. The dialog box that is displayed will depend on the color depth of the image. The available dialog boxes are:

The "Select Color" Dialog Box For 2 Colors
The "Select Color" Dialog Box For 16 Colors
The "Select Color" Dialog Box For 256 Colors
The "Color" Dialog Box For 16 million Colors

Image - Crop

This selection is available only if your image has a defined area. It allows you to crop unwanted portions of your image from outside the defined area. The resulting image will be only the area inside the defined area.

How To Crop An Image

1. Define the area of the image you want to keep.

   Use the Area Selection Tool to define the area.

2. Select "Image" - "Crop".

Image - Resample

This option is available to be applied only to greyscale images and 24 bits-per-pixel images. A 4 bits-per-pixel greyscale image will be promoted to an 8 bits-per-pixel greyscale image. Resampling will resize an image without causing the jagged edges normally associated with resizing.

How To Resample An Image

1. Select "Image" - "Resample". This opens the "Resample" dialog box. The dialog box allows you to select the way you want the resample operation to be applied.

2. Select one of the "Standard Size" options or the "Custom Size" option.

   If you select the "Custom Size:" option button, enter the new width and height in the "Custom Size:" edit boxes.

3. Click "OK" (or press "Enter").

The "Resample" Dialog Box

Standard Sizes

The available option buttons correspond to common video resolutions. The size and aspect ratio are automatically determined by the option selected. Note: If the original image is of a different aspect ratio than the selection, the resulting image will be distorted to fill the selected dimensions.

"Custom Size:" Edit Boxes

These edit boxes allow you to change the size of the image. If you enter a new size value in one of the "Custom Size:" edit boxes, Paint Shop Pro will automatically change the other box to a size that maintains the same aspect ratio, if you have selected the "Maintain Aspect Ratio" check box.

"Maintain Aspect Ratio" Check Box

The "Maintain Aspect Ratio" check box determines whether or not the displayed Aspect Ratio is to be in effect.

If you have de-selected the "Maintain Aspect Ratio" check box, you can change one (or both) of the "Custom Size" edit boxes to intentionally distort the image by entering different values.

"Maintain Aspect Ratio" Edit Box

You can change the aspect ratio to be maintained by entering a different value in the edit box. When you enter a different aspect ratio in the edit box, the image's width remains the same, but the image's height will change to correspond with the new aspect ratio.

Image - Resize

This selection allows you to resize an image using pixel replication or deletion.

"Resizing" is a method of duplicating or removing pixels as required to alter the size of the image. This will not yield results as good as you get with "Resample". You may find it advantageous to increase the color depth of the image to 24 bits before resizing the image. By increasing the color depth to 24 bits, the image may be resampled instead of resized. Once the image is resampled, it may be reduced back to the original number of colors by use of the "Colors", "Decrease Color Depth" menu option.

How To Resize An Image

1. Select "Image" - "Resize". This opens the "Resize" dialog box. The dialog box allows you to select the way you want the resize operation to be applied.

2. Select one of the "Standard Size" options or the "Custom Size" option.

   If you select the "Custom Size:" option button, enter the new width and height in the "Custom Size:" edit boxes.

3. Click "OK" (or press "Enter").

The "Resize" Dialog Box

Standard Sizes

The available option buttons correspond to common video resolutions. The size and aspect ratio are automatically determined by the option selected. Note: If the original image is of a different aspect ratio than the selection, the resulting image will be distorted to fill the selected dimensions.

"Custom Size:" Edit Boxes

These edit boxes allow you to change the size of the image. If you enter a new size value in one of the "Custom Size:" edit boxes, Paint Shop Pro will automatically change the other box to a size that maintains the same aspect ratio, if you have selected the "Maintain Aspect Ratio" check box.

"Maintain Aspect Ratio" Check Box

The "Maintain Aspect Ratio" check box determines whether or not the displayed Aspect Ratio is to be in effect.

If you have de-selected the "Maintain Aspect Ratio" check box, you can change one (or both) of the "Custom Size" edit boxes to intentionally distort the image by entering different values.

"Maintain Aspect Ratio" Edit Box

You can change the aspect ratio to be maintained by entering a different value in the edit box. When you enter a different aspect ratio in the edit box, the image's width remains the same, but the image's height will change to correspond with the new aspect ratio.

Image - Edge Filters

This option is available to be applied only to 8 bits-per-pixel greyscale images and 24 bits-per-pixel images.

How To Apply An Edge Filter

1. Select "Image" - "Edge Filters". This opens a pull down sub menu. The sub menu will display the various edge filters that may be applied to the image.

2. Click the filter you want applied.

The "Edge Filters" Pull Down Menu Options

Some edge filters may have different application levels. This indicates how aggressively the filter will be applied. You may wish to experiment by first selecting the "More" application of an option to see its greatest effect on an image.

Edge Enhance
This locates the edges in an image and enhances their detail.

Edge Enhance More
This option is a more aggressive version of "Edge Enhance".

Find Edges
This traces a line around the edges in an image.

Find Horizontal Edges
This traces only the horizontal edges in an image.

Find Vertical Edges
This traces only the vertical edges in an image.

Trace Contour
This traces a contour around all the edges in an image.

Image - Normal Filters

This option is available to be applied only to 8 bits-per-pixel greyscale images and 24 bits-per-pixel images.

How To Apply A Normal Filter

1. Select "Image" - "Normal Filters". This opens a pull down sub menu. The sub menu will display the various normal filters that may be applied to the image.

2. Click the filter you want applied.

The "Normal Filters" Pull Down Menu Options

Some normal filters may have different application levels. This indicates how aggressively the filter will be applied. You may wish to experiment by first selecting the "More" application of an option to see its greatest effect on an image.

Blur
This blurs the image by blending together neighboring pixels throughout the entire image.

Blur More
This option is a more aggressive version of "Blur".

Sharpen
This sharpens the image by creating more contrast between neighboring pixels.

Sharpen More
This option is a more aggressive version of "Sharpen".

Soften
This softens the image by blending the edges with the neighboring pixels.

Soften More
This option is a more aggressive version of "Soften".

Image - Special Filters

This option is available to be applied only to 8 bits-per-pixel greyscale images and 24 bits-per-pixel images.

How To Apply A Special Filter

1. Select "Image" - "Special Filters". This opens a pull down sub menu. The sub menu will display the various special filters that may be applied to the image.

2. Click the filter you want applied.

Add Noise
This filter adds specks (or "noise") patterns to an image. It opens the "Add Noise" dialog box to allow you to select from the type and amount of noise to be added.

Despeckle
This filter removes unwanted specks (or "noise") patterns, from an image.

Dilate
This filter brings out the brighter colors of an image.

Emboss
This filter creates a three-dimensional shading to an image.

Erode
This filter brings out the darker colors of an image.

Median
This filter averages the colors, brightness, and contrast of an image.

Mosaic
This filter creates a pixelated mosaic of an image. It opens the "Mosaic" dialog box to allow you to select the size of the pixeled rectangles to be used to make the mosaic. If the "Square" check box is checked, then changes to the height or width will be echoed to the other control.

Posterize
This filter decreases the bits-per-pixel used by a given color. It opens the "Posterize" dialog box to allow you to select the bits-per-pixel that should be used for each color channel.

The "Add Noise" Dialog Box

"Random Noise" Option Button
Select this option if the noise distribution is to be random (non-uniform).

"Uniform Noise" Option Button
Select this option if the noise distribution is to be uniform across the image.

"Percent to Add" Edit Box and Scroll Bar
The percentage of noise to be added may be typed in the edit box or scrolled in using the scroll bar.

The "Mosaic" Dialog Box

"Square" Check Box

The blocks of the mosaic may be either square or rectangular. If this box is checked, the block size value entered for either dimension will be duplicated in the other. If un-checked, different values may be entered for the width and height.

"Block Width" Edit Box and Scroll Bar

The width of the mosaic block, in pixels, may be typed in the edit box or scrolled in using the scroll bar. If the "Square" check box is selected, the "Block Height" value will be changed to match the width value entered.

"Block Height" Edit Box and Scroll Bar

The height of the mosaic block, in pixels, may be typed in the edit box or scrolled in using the scroll bar. If the "Square" check box is selected, the "Block Width" value will be changed to match the height value entered.

The "Posterize" Dialog Box

"Levels per Channel" Edit Box and Scroll Bar

A decreased bits-per-pixel value for each color channel may be typed in the edit box or scrolled in using the scroll bar. Acceptable values are 1 through 7.

Image - User Defined Filters

This option is available to be applied only to 8 bits-per-pixel greyscale images and 24 bits-per-pixel images. It allows you to apply, create, edit, and delete your own convolution filters. With experimentation, you can create special effects with user-defined filters that may not be available using the standard filters.

How To Work with User Defined Filters

1. Select "Image" - "User Defined Filters". This opens the "Apply User Defined Filter" dialog box.

   The "Apply User Defined Filter" dialog box provides all the options necessary to manage your own filters. The dialog box contains numerous buttons that give you this control. The action that a button will take is on the currently highlighted filter in "Filter Type" list box. These available buttons are:

   OK - This will apply the highlighted filter to the image.

   Edit - This will open the "Edit User Defined Filter" dialog box. The currently highlighted filter can be edited from within this dialog box.

   Delete - This will delete the highlighted filter.

   New - This will open the "Define New Filter" dialog box. Within this dialog box you can create new filters.

The "Apply User Defined Filter" Dialog Box

"Filter Type" List Box

This box will display a list of your user-defined filters. You can highlight the filter name of your choice to edit, delete, or apply it to the current image.

"Apply To" Section

When a filter is applied to an image the filter may be applied to either the image's "Grey Values" or to the image's true colors ("Color Components"). You can select what the filter should be applied to in the "Apply To" section.

If you select "Color Component(s)" option, all three of the color components check boxes (Red, Green, Blue) automatically become selected. You can deselect color components you do not want the filter applied to by clicking the selection's check box. At least one of the color components must be selected.

"OK" Command Button

This will apply the highlighted filter to the image.

"Edit" Command Button

This will open the "Edit User Defined Filter" dialog box. The currently highlighted filter can be edited from within this dialog box.

"Delete" Command Button

This will delete the highlighted filter.

"New" Command Button

This will open the "Define New Filter" dialog box. Within this dialog box you can create new filters.

The "Edit User Defined Filter" Dialog Box

This dialog box will allow you to change or add values to your existing filters. Paint Shop Pro has included one of the standard filters "Enhance Detail" here for your use as an example of the way a filter is structured.

"Filter Name" Edit Box

This is the name of the user-defined filter. It will appear in the "Filter Type" list box of the "Apply User Defined Filter" dialog box.

"Filter Matrix" Edit Boxes

This is the area that defines the values to be applied. These values are multiplied by the value of the pixels under the matrix.

"Division Factor" Edit Box

This is the number that will be divided into the sum of the matrix's pixels.

"Bias" Edit Box

This is the number that will be added to the resulting value, after the matrix and division factors have been applied.

The "Define New Filter" Dialog Box

"Filter Name" Edit Box

This is where you enter the name for your new user-defined filter. It will appear in the "Filter Type" list box of the "Apply User Defined Filter" dialog box.

"Filter Matrix" Edit Boxes

This is the area that defines the values to be applied. These values are multiplied by the value of the pixels under the matrix.

"Division Factor" Edit Box

This is the number that will be divided into the sum of the matrix's pixels.

"Bias" Edit Box

This is the number that will be added to the resulting value, after the matrix and division factors have been applied.

Colors Menu

Use the scroll bar to see entries not currently visible in the Help window.

Menu Options

Brightness/Contrast
Gamma Correct
Grey Scale
Highlight/Shadow
Negative Image
Red/Green/Blue
Solarize
Edit Palette
Load Palette
Save Palette
Count Colors Used
Decrease Color Depth
Increase Color Depth

Associated Dialog Boxes

The "Brightness/Contrast" Dialog Box
The "Gamma Correction" Dialog Box
The "Highlight/Shadow" Dialog Box
The "Adjust RGB" Dialog Box
The "Solarize" Dialog Box
The 16 Colors "Edit Palette File" Dialog Box
The 256 Colors "Edit Palette File" Dialog Box
The "Color" Dialog Box
The "Load Palette File" Dialog Box
The "Save Palette As" Dialog Box
The "Decrease Color Depth - 2 Colors" Dialog Box
The "Decrease Color Depth - 16 Colors" Dialog Box
The "Decrease Color Depth - 256 Colors" Dialog Box
The "Decrease Color Depth - 32K Colors" Dialog Box
The "Decrease Color Depth - 64K Colors" Dialog Box
The "Decrease Color Depth - X Colors" Dialog Box

Colors - Brightness/Contrast

This selection allows you to adjust the brightness and/or contrast of an image.

How To Adjust The Brightness/Contrast

1. Select "Colors" - "Brightness/Contrast". This opens the "Brightness/Contrast" dialog box. This allows you to enter the way you want the operation to be applied.

2. Adjust the Brightness and/or the Contrast components to your choice.

3. Click "Preview" to preview your choice before applying it.

4. Click "OK" (or press "Enter") to apply your adjustments.

The "Brightness/Contrast" Dialog Box

To change the brightness and/or contrast values, use the corresponding scroll bar to change the value or enter the value in the corresponding edit box. Acceptable values are from -100 to 100. The scroll arrows change values in increments of 1. The scroll bar changes values in increments of 10.

A negative value will decrease the brightness and/or contrast.
A positive value will increase the brightness and/or contrast.

When adjusting the Brightness of an image, you are increasing or decreasing the value of all color components. For example, if the red value=0, the green value=0 and the blue value=128 (this would be a light blue), and you were to select an adjusted brightness value of 100, this particular color would become; red value=0, green value =0, and the blue value=255 (resulting in bright blue).

When adjusting the Contrast of an image, you can move the color farther away from the color's mid-point by selecting positive adjust values. To move the colors closer to the color's mid-point select negative adjust values.

"Brightness" Edit Box and Scroll Bar
The change in the image's brightness may be typed in the edit box or scrolled in using the scroll bar.

"Contrast" Edit Box and Scroll Bar
The change in the image's contrast may be typed in the edit box or scrolled in using the scroll bar.

"Preview" Command Button
Click on the preview button to see the effect of the selections you made before actually applying them to the image.

Colors - Gamma Correct

This selection allows you to apply a gamma correction value to the colors of an image to correct for the difference in gamma levels between the computer's monitor and the equipment that originally produced the image.

Your images may come from many different sources. Some of these sources do not use the same gamma values as your computer's monitor. As a result, your image's colors may not be correct.

An example of an image that may need a gamma correction would be an image that was scanned by a scanner. Scanners use different gamma values than computer monitors.

An example of an image that should not need gamma correction would be an image that was produced with a painting program. Since the colors of the image were selected on a computer monitor, your monitor should be able to represent the original colors.

How To Make A Gamma Correction

1. Select "Colors" - "Gamma Correct". This opens the "Gamma Correction" dialog box.
2. Enter the gamma correction value of your choice in the edit box. The value must be greater than zero and less than five.
3. Click "Preview" to preview your choice before applying it.
4. Click "OK" (or press "Enter") to apply your adjustments.

The "Gamma Correction" Dialog Box

"Gamma Correction Value" Edit Box and Scroll Bar

The gamma correction value may be typed in the edit box or scrolled in using the scroll bar. The value must be greater than zero and less than five.

"Preview" Command Button

Click on the preview button to see the effect of the gamma correction you made before actually applying it to the image.

Colors - Grey Scale

This selection will change the image's colors to the grey scale values of the original colors.

How To Change A Color Image To Grey Scale

1. Select "Colors" - "Grey Scale". The image is changed to its grey scale values.

Colors - Highlight/Shadow

This selection allows you to separately adjust the highlight and shadow color ranges in an image.

How To Adjust the Highlight/Shadow of an Image

1. Select "Colors" - "Highlight/Shadow". This opens the "Highlight/Shadow" dialog box.
2. Adjust the Highlight and/or the Shadow components to your choice.
3. Click "Preview" to preview your choice before applying it.
4. Click "OK" (or press "Enter") to apply your adjustments.

The "Highlight/Shadow" Dialog Box

When you adjust the highlight of an image, you are increasing the brightness for a range of colors. When the highlight is at 100 percent, each color keeps its original value. As you decrease the highlight value, the colors at or above the selected value become brighter. This results in the highlights of the image becoming more pronounced.

When you adjust the shadowing of an image, you are decreasing the brightness for a range of colors. When the shadow is at 0 percent, each color keeps its original value. As you increase the shadow value, the colors at or below the selected value become darker. This results in the shadows of the image becoming more pronounced.

"Highlight" Edit Box and Scroll Bar

The adjustment value for the image's highlight may be typed in the edit box or scrolled in using the scroll bar.

"Shadow" Edit Box and Scroll Bar

The adjustment value for the image's shadow may be typed in the edit box or scrolled in using the scroll bar.

"Preview" Command Button

Click on the preview button to see the effect of the selections you made before actually applying them to the image.

Colors - Negative Image

This selection creates a photographic negative of the original image.

How To Make A Negative Image

1. Select "Colors" - "Negative Image". The image is changed to its negative colors.

Colors - Red/Green/Blue

This selection allows you to alter the values of your image's red, green, and blue color components. The changes you select will be applied to all colors within the image.

How To Adjust Red/Green/Blue

1. Select "Colors" - "Red/Green/Blue". This opens the "Adjust RGB" dialog box.

2. Adjust the Red, Green, and/or Blue components to your choice.

3. Click "Preview" to preview your choice before applying it.

4. Click "OK" (or press "Enter") to apply your adjustments.

The "Adjust RGB" Dialog Box

To change the color values, use the corresponding scroll bar to change the value or enter the value in the corresponding edit box. Acceptable values are from -100 to 100. The scroll arrows change values in increments of 1. The scroll bar changes values in increments of 10.

Entering a value that is positive will increase the color component's value. Entering a value that is negative will decrease the color component's value. For example, if the value of the red component of a pixel is 75, and you select an adjustment value of +100%, then the new value for that pixel will be 150 (doubling the original value). If you were to select a value of -100%, then the pixel would become 0 (removing that color component).

"Red" Edit Box and Scroll Bar

The change in the image's red color level may be typed in the edit box or scrolled in using the scroll bar.

"Green" Edit Box and Scroll Bar

The change in the image's green color level may be typed in the edit box or scrolled in using the scroll bar.

"Blue" Edit Box and Scroll Bar

The change in the image's blue color level may be typed in the edit box or scrolled in using the scroll bar.

"Preview" Command Button

Click on the preview button to see the effect of the selections you made before actually applying them to the image.

Colors - Solarize

This selection allows you to invert the colors above the specified level, creating a solarized effect.

How To Apply Solarize to an Image

1. Select "Colors" - "Solarize". This opens the "Solarize" dialog box.
2. Adjust the degree of solarization you want.
3. Click "Preview" to preview your choice before applying it.
4. Click "OK" (or press "Enter") to apply your adjustments.

The "Solarize" Dialog Box

To adjust the solarization value, use the corresponding scroll bar to change the value or enter the value in the corresponding edit box. Acceptable values are from 1 to 254. The scroll arrows change values in increments of 1. The scroll bar changes values in increments of 10.

"Solarize Threshold" Edit Box and Scroll Bar

The degree of solarization desired may be typed in the edit box or scrolled in using the scroll bar.

"Preview" Command Button

Click on the preview button to see the effect of the degree of solarization you made before actually applying it to the image.

Colors - Edit Palette

This selection allows you to change the colors of the image's palette. This option is available only when the active image is 16 or 256 colors.

How To Edit an Image's Palette

1. Select "Colors" - "Edit Palette". This opens the 16 colors "Edit Palette File" dialog box or the 256 colors "Edit Palette File" dialog box, depending on the color capacity of the current image.

2. To edit a color, double click on a color in the palette. This opens the "Color" dialog box.

3. Use the "Color" dialog box to obtain the new values for the selected color.

4. Repeat steps 2 and 3 until you have edited all the colors of the palette you desire.

5. Click "OK" (or press "Enter") to update the image with the new palette.

The 16 Colors "Edit Palette File" Dialog Box

Palette Display

The palette of the image will be displayed. Double click on the color you want to edit. This will open the "Color" dialog box, allowing you choose a new color for the palette component selected.

"Reset" Command Button

This will reset the palette to its original colors.

The 256 Colors "Edit Palette File" Dialog Box

Palette Display

The palette of the image will be displayed. Double click on the color you want to edit. This will open the "Color" dialog box, allowing you choose a new color for the palette component selected.

"Reset" Command Button

This will reset the palette to its original colors.

The "Color" Dialog Box

Palette Display Area

All the different shades of color that are available are displayed. Click the left mouse button in this area to select a new color.

Luminance Display Area

The range of luminance for the shade of color you selected is displayed here. Slide the pointer to the desired luminance for the new color.

"Color|Solid" Display

The results of the color and luminance selections will be displayed.

Color Value Edit Boxes

"Hue"

The numerical value for the hue of the color selected is displayed. A specific hue value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Sat"

The numerical value for the saturation of the color selected is displayed. A specific saturation value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Lum"

The numerical value for the luminance of the color selected is displayed. A specific luminance value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Red"

The numerical value for the red channel of the color selected is displayed. A specific red value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Green"

The numerical value for the green channel of the color selected is displayed. A specific green value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

"Blue"

The numerical value for the blue channel of the color selected is displayed. A specific blue value may be typed in here. The changed color due to the new value will be displayed in the various display areas.

Colors - Load Palette

This selection will allow you to load a 16 or 256 color palette into an image. This option will be available anytime the active image is not a black and white image.

Under some circumstances you may want an image to contain a specific palette. As an example, if you are creating a slide presentation you may not want significant color changes from one slide to the next. This can be accomplished by loading the same palette into all the images making up the slide presentation.

Loading a palette into an image accomplishes different tasks depending on the color depth of the original image and the number of colors in the palette be loaded. These tasks include decreasing an image's color depth, remapping the palette of an image, or increasing an image's color depth.

Loading a palette into a 24 bits-per-pixel image decreases the image's color depth to the number of colors of the palette. Loading a 16 color palette into a 256 color image decreases the image's color depth to 16 colors. This gives you the ability to do color reduction on images with palettes other than the two palettes that Paint Shop Pro allows in the "Decrease Color Depth" menu option.

Loading a 256 color palette into a 256 color image or loading a 16 color palette into a 16 color image would cause the image's colors to be remapped to the new palette. The color depth of the original image does not change, just the palette that it uses.

Loading a 256 color palette into a 16 color image results in the image having its color depth increased. In addition, the palette that the image uses will be from the 256 color palette that was loaded into the image.

You can create palette files to load into images by saving palettes from other images using the "Colors"-"Save Palette" menu option.

How To Load a Palette into an Image

1. Select "Colors" - "Load Palette". This opens the "Load Palette File" dialog box.
2. Change to the drive and directory where your palette file resides by double clicking the drive or directory in the "Directories:" or the "Drives:" list boxes.
3. Select the palette file name you want to load.
4. Select the way the new palette should be applied to the image.
5. Click "OK" (or press "Enter") to load the palette into the image.

The "Load Palette File" Dialog Box

"File Name" Edit Box

When you open this dialog box, the "File Name:" edit box displays the .pal file name extension.

You can type in the palette file name you want to open (if you know what it is) in this box. You will have to include the complete path with the file name if the "Directories:" display is not the one containing the file.

You can select a palette file displayed in the "File Name:" list box by clicking the mouse pointer on its file name to highlight it. The highlighted file name will become displayed in the "File Name:" edit box.

"File Name" List Box

Palette files listed in the "Files:" list box are those that are located in the directory currently displayed, and have the .pal file name extension.

If you want to list palette files other than those currently listed, you can do this by selecting a different drive or directory (in their respective boxes).

You can open a palette file displayed in the "File Name:" list box by clicking the mouse pointer on its file name and then clicking the "OK" command button. (Short cut: you can rapidly double click on the file name to open it without having to click the "OK" button.)

"List Files of Type" Drop Box

The palette files that Paint Shop Pro creates use the .pal file name extension. Therefore, the .pal file name extension is the only file type listed in this drop box.

"Directories"

This displays the current directory. If you change the drive and/or the directory (either by using the "File Name:" edit box or the "Directories:" list box and/or the "Drives:" drop box), the "Directories:" display changes accordingly.

"Directories" List Box

The "Directories:" list box displays the directories available. If you want to change to a different directory, double click on the directory of your choice.

"Drives" Drop Box

The "Drives:" drop box displays the current drive you are in. Clicking on the arrow will display all the available drives on your system. Click on the drive you want to change to.

"Apply Palette to Image using:" Area

"Nearest Color" Option Button

This option will search the loaded palette for the color that most closely represents the original color.

"Error Diffusion" Option Button

This option will disperse the difference between the color that was selected and the original color to the pixels surrounding it.

Colors - Save Palette

This selection allows you to save the palette of the current image to a file. This option will be available only when the active image is a 16 or 256 color image.

How To Save an Image's Palette

1. Select "Colors" - "Save Palette". This opens the "Save Palette As" dialog box.

2. You can change to a different drive or directory by double clicking the drive or directory of your choice in the "Directories:" or the "Drives:" list boxes.

3. Change the filename if you want. You can do this by highlighting the filename in the "File Name:" edit box, then type in the new name.

4. Click "OK" (or press "Enter") to save the file.

   If the filename you select is already in use by another file, you will be prompted with a message box:

   Click "Yes" if you want to overwrite the existing palette file with the current palette.
   Click "No" to abort the "Save Palette As" process.

The "Save Palette As" Dialog Box

"File Name" Edit Box

When you first open this dialog box, the "File Name:" edit box displays the file name of the current image, but changes the file name extension to ".pal".

If you want the palette saved with a different file name, type a new file name in this box.

"File Name" List Box

Image files listed in the "File Name:" list box are those that are located in the directory currently displayed and have the file extension currently displayed in the "Files of Type:" drop box.

"List Files of Type" Drop Box

The palette files that Paint Shop Pro creates use the .pal file name extension. Therefore, the .pal file name extension is the only file type listed in this drop box.

"Directories"

This displays the current directory. If you change the drive and/or the directory (either by using the "File Name:" edit box or the "Directories:" list box and/or the "Drives:" drop box), the "Directories:" display changes accordingly.

"Directories" List Box

The "Directories:" list box displays the directories available. If you want to change to a different directory, double click on the directory of your choice.

"Drives" Drop Box

The "Drives:" drop box displays the current drive you are saving to. Clicking on the arrow will display all the available drives on your system. Click on the drive you want to change to.

Colors - Count Colors Used

This selection counts the number of unique colors that are used in the image.

How To Count Colors Used

1. Select "Colors" - "Count Colors Used".
2. A message box will display the number of unique colors used.
3. Click "OK" (or press "Enter") in the message box.

Colors - Decrease Color Depth

This selection allows you to decrease the maximum number of colors that the image is capable of containing.

How To Decrease Color Depth

1. Select "Colors" - "Decrease Color Depth". This opens another pulled-down menu of color depth selections.

2. Select the option corresponding to the number of colors you want the color depth to be. This will open a dialog box corresponding to the selected color depth.
   "Decrease Color Depth - 2 Colors" Dialog Box
   "Decrease Color Depth - 16 Colors" Dialog Box
   "Decrease Color Depth - 256 Colors" Dialog Box
   "Decrease Color Depth - 32K Colors" Dialog Box
   "Decrease Color Depth - 64K Colors" Dialog Box
   "Decrease Color Depth - X Colors" Dialog Box

3. Select the option buttons you want from the associated dialog box. Refer to the following pages for descriptions of the associated dialog boxes.

4. Click "OK" (or press "Enter") in the associated dialog box.

The "Decrease Color Depth - 2 Colors" Dialog Box

The "Decrease Color Depth - 2 Colors" dialog box will allow you to determine the way that the image's colors should be reduced. Select your options from the three areas, Palette, Reduction Method, and Options.

"Palette" Option Buttons

Palette refers to the original palette of colors. To determine whether a pixel should be set to black or white, the original color of the pixel is examined. Normally, the pixel's Grey Value is used to make this determination. But, you may obtain better results if just one of the color components of the original palette is used. For example, an image with a lot of flesh tones comes out better if you only use the red color component. An image that is mainly green will look better if you use only the green color component. In the Palette section, select "Grey Values" or one of the "Red", "Green", or "Blue" color components to be used in the color reduction.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors converted to your new palette. Select "Nearest Color", "Ordered Dither" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color in the new palette (either black or white). Any difference between the nearest color and the original color will be ignored.

"Ordered Dither" Option Button

This option will dither the image using a matrix to create patterns. The patterns will provide the illusion of more colors than what actually exists.

"Error Diffusion" Option Button

This option will find the nearest color in the new palette (either black or white). A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). Within error diffusion there are three algorithms that are most popular. They are: Floyd-Steinberg, Burkes, and Stucki. They each give different results. After selecting "Error Diffusion", select either "Floyd-Steinberg", "Burkes", or "Stucki".

"Options" Option Buttons

"Weighted Palette" Option Button

This option will alter the original palette by setting the original colors closer to black or white. This will result in more of the colors being set to black or white with no error. As a result, there will be less dithering. Thus, it will appear that there are fewer levels of grey. In addition, the edges should appear sharper. You may select a weighted palette by clicking the option button.

"Non-weighted Palette" Option Button

This option will leave the original palette alone. This will result in normal dithering patterns. Edges may not be as sharp, but it will appear that there are more levels of grey. You may select a "Nonweighted Palette" by clicking the option button.

The "Decrease Color Depth - 16 Colors" Dialog Box

The "Decrease Color Depth - 16 Colors" dialog box will allow you to determine the way that the image's colors should be reduced. Select your options from the three areas, Palette, Reduction Method, and Options.

"Palette" Option Buttons

Palette is the new set of colors that the image will use. Select either Optimized or Windows.

"Optimized" Option Button

This option will create and use an optimized palette of the 16 closest and most popular colors. This will always produce the best results, since the new colors will be selected from the original colors.

"Windows" Option Button

The 16 colors that result will be the 16 default colors that Windows uses. You should choose this option if the image will be displayed on an EGA system or a VGA system in 16 color mode. This option will allow you to create many images that all use the same palette.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors converted to your new palette. Select "Nearest Color", "Ordered Dither" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color in the new palette. Any difference between the nearest color and the original color will be ignored.

"Ordered Dither" Option Button

This option will dither the image using a matrix to create patterns. The patterns will provide the illusion of more colors than what actually exists.

"Error Diffusion" Option Button

This option will find the nearest color in the new palette. A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). The error diffusion method that is used is Floyd-Steinberg.

"Options" Check Boxes

"Boost Marked Colors by" Check and Edit Boxes

This option is only available if you select "Palette" "Optimized", and an area of the image has been defined.

Use the Area Selection Tool to define the area.

It will increase the chances that the colors in the defined area are included in the final palette of colors. To activate the booster, click on the check box. Then, enter the amount to boost the colors by in the edit box. The allowable range is from 1 to 10. By boosting the colors by a factor of 10, the colors should be present in the final image.

"Reduce Color Bleeding" Check Box

This option is only available if you select "Reduction Method" "Error Diffusion". It will reduce the carry-over of the error diffusion. This results in less dithering of the colors and thus reduces the bleeding of the colors. This option can be selected by clicking on the check box.

The "Decrease Color Depth - 256 Colors" Dialog Box

The "Decrease Color Depth - 256 Colors" dialog box will allow you to determine the way that the image's colors should be reduced. Select your options from the three areas, Palette, Reduction Method, and Options.

"Palette" Option Buttons

Palette is the new set of colors that the image will use. Select either Optimized or Standard.

"Optimized" Option Button

This option will create and use an optimized palette of the 256 closest and most popular colors. This option will always produce the best results, since the new colors will be selected from the original colors.

"Standard" Option Button

This option will use a mix of various colors for the new palette. This option will allow you to create many images that all use the same palette.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors converted to your new palette. Select "Nearest Color", "Ordered Dither" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color in the new palette. Any difference between the nearest color and the original color will be ignored.

"Ordered Dither" Option Button

This option will dither the image using a matrix to create patterns. The patterns will provide the illusion of more colors than what actually exists.

"Error Diffusion" Option Button

This option will find the nearest color in the new palette. A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). The error diffusion method that is used is Floyd-Steinberg.

"Options" Check Boxes

"Boost Marked Colors by" Check and Edit Boxes

This option is only available if you select "Palette" "Optimized", and an area of the image has been defined.

Use the Area Selection Tool to define the area.

It will increase the chances that the colors in the defined area are included in the final palette of colors. To activate the booster, click on the check box. Then, enter the amount to boost the colors by in the edit box. The allowable range is from 1 to 10. By boosting the colors by a factor of 10, the colors should be present in the final image.

"Include Windows' Colors" Check Box

This option is only available if you select "Palette" "Optimized". When Paint Shop Pro creates an optimized palette of colors, it may not include the 16 default colors that Windows uses. Thus, 16 of the colors that are in the palette of colors can not be represented properly and the image will appear to be improperly dithered. By selecting this option, the 16 default colors of Windows will be included in the optimized palette, thus all colors from the new palette will be displayable. This option can be selected by clicking on the check box.

"Reduce Color Bleeding" Check Box

This option is only available if you select "Reduction Method" "Error Diffusion". It will reduce the carry-over of the error diffusion. This results in less dithering of the colors and thus reduces the bleeding of the colors. This option can be selected by clicking on the check box.

The "Decrease Color Depth - 32K Colors" Dialog Box

The "Decrease Colors Depth - 32K Colors" dialog box will allow you to determine the way that the image's colors should be decreased. Select the reduction method you desire.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors decreased. Select either "Nearest Color" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color of the 32k available colors. Any difference between the nearest color and the original color will be ignored.

"Error Diffusion" Option Button

This option will find the nearest color of the 32k available colors. A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). The error diffusion method used is Floyd-Steinberg.

Since Windows does not recognize 15 bits-per-pixel images, after decreasing the color depth to 32k colors, Paint Shop Pro will still treat the image as a 24 bit image. The image will have been reduced to include not more than 32k colors.

The "Decrease Color Depth - 64K Colors" Dialog Box

The "Decrease Colors Depth - 64K Colors" dialog box will allow you to determine the way that the image's colors should be decreased. Select the reduction method you desire.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors decreased. Select either "Nearest Color" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color of the 64k available colors. Any difference between the nearest color and the original color will be ignored.

"Error Diffusion" Option Button

This option will find the nearest color of the 64k available colors. A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). The error diffusion method used is Floyd-Steinberg.

Since Windows does not recognize 16 bits-per-pixel images, after decreasing the color depth to 64k colors, Paint Shop Pro will still treat the image as a 24 bit image. The image will have been reduced to include not more than 64k colors.

The "Decrease Color Depth - X Colors" Dialog Box

The "Decrease Color Depth - X Colors" dialog box will allow you to determine the way that the image's colors should be reduced. Select your options from the three areas, Palette, Reduction Method, and Options.

"Palette" Section

Palette is the new set of colors that the image will use. Use this section to select the maximum number of colors the resulting image should have.

"Number of Colors" Edit Box

This edit box will allow you to enter the maximum number of colors the resulting image should have. The allowable range is from 17 to 256.

"Reduction Method" Option Buttons

Reduction Method is the way you would like to have the image's colors converted to your new palette. Select "Nearest Color" or "Error Diffusion".

"Nearest Color" Option Button

This option will find the nearest color in the new palette. Any difference between the nearest color and the original color will be ignored.

"Error Diffusion" Option Button

This option will find the nearest color in the new palette. A difference between the nearest color and the original color is considered an error. This error is diffused to the neighboring pixels (this is known as Error Diffusion Dithering). The error diffusion method that is used is Floyd-Steinberg.

"Options" Check Boxes

"Boost Marked Colors by" Check and Edit Boxes

This option is only available if you select "Palette" "Optimized", and an area of the image has been defined.

Use the Area Selection Tool to define the area.

It will increase the chances that the colors in the defined area are included in the final palette of colors. To activate the booster, click on the check box. Then, enter the amount to boost the colors by in the edit box. The allowable range is from 1 to 10. By boosting the colors by a factor of 10, the colors should be present in the final image.

"Include Windows' Colors" Check Box

This option is only available if you select "Palette" "Optimized". When Paint Shop Pro creates an optimized palette of colors, it may not include the 16 default colors that Windows uses. Thus, 16 of the colors that are in the palette of colors can not be represented properly and the image will appear to be improperly dithered. By selecting this option, the 16 default colors of Windows will be included in the optimized palette, thus all colors from the new palette will be displayable. This option can be selected by clicking on the check box.

"Reduce Color Bleeding" Check Box

This option is only available if you select "Reduction Method" "Error Diffusion". It will reduce the carry-over of the error diffusion. This results in less dithering of the colors and thus reduces the bleeding of the colors. This option can be selected by clicking on the check box.

Colors - Increase Color Depth

This selection allows you to increase the color depth of an image by increasing the number of bits per pixel that the image uses to hold its colors. Increasing the bits per pixel will allow the image to contain more colors.

How To Increase Color Depth

1. Select "Colors" - "Increase Color Depth". This opens another pulled-down menu of color depth selections.

2. Select the option corresponding to the number of colors you want the color depth to be.

Capture Menu

Use the scroll bar to see entries not currently visible in the Help window.

The image that will be captured will have the same number of bits per pixel as your diver's maximum capabilities. Since Windows does not support a 15 or 16 bits per pixel image, the image returned on a 15 or 16 bits per pixel system will be a 24 bits per pixel image, but the image will have 32,768 colors or less with a 15 bits per pixel driver and 65,536 colors or less with a 16 bits per pixel driver.

Menu Options

Area
Full Screen
Client Area
Window
Include Cursor

Misc.

Alternate Capturing Techniques

Capture - Area

This option allows you to capture a rectangular area of the screen.

How To Capture An Area

1. Select "Capture" - "Area". Paint Shop Pro will reduce itself to an icon.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "On Right Mouse Click", you must press the right mouse button to activate the framing procedure described in the next step.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "Immediately after Selection", Paint Shop Pro is ready to apply the framing procedure described in the next step.

2. Move the cursor to the upper left corner of the area to be captured.

3. Hold down the left mouse button.

4. Move the cursor to the lower right corner of the area to be selected.

   During the framing of the area to be captured, the size of the area in pixels will be displayed in the center of the framed area.

5. Release the left mouse button.

6. The Paint Shop Pro window will be restored to its previous size with the captured area displayed.

Capture - Full Screen

This option allows you to capture the entire screen.

How To Capture The Full Screen

1. Select "Capture" - "Full Screen". Paint Shop Pro will reduce itself to an icon.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "On Right Mouse Click", you must press the right mouse button to activate the full screen capture described in the next step.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "Immediately after Selection", Paint Shop Pro immediately captures the full screen as described in the next step.

2. The Paint Shop Pro window will be restored to its previous size with the captured full screen displayed.

Capture - Client Area

This option allows you to capture only the client area of a window. The client area is the area inside the frame of a window. It will not include the title, frame, or menu bar of the window. However, it will include anything inside the window frame.

How To Capture The Client Area

1. Select "Capture" - "Client Area". Paint Shop Pro will reduce itself to an icon.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "On Right Mouse Click", you must press the right mouse button to activate the client area capture described in the next step.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "Immediately after Selection", Paint Shop Pro immediately captures the client area as described in the next step.

2. The Paint Shop Pro window will be restored to its previous size with the captured client area displayed.

Capture - Window

This option allows you to capture an entire window, including the title, frame, menu bar, etc.

How To Capture A Window

1. Select "Capture" - "Window". Paint Shop Pro will reduce itself to an icon.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "On Right Mouse Click", you must press the right mouse button to activate the window capture described in the next step.

   If, from the "File"-"Preferences"-"Activate Capture" options, you selected "Immediately after Selection", Paint Shop Pro immediately captures the window as described in the next step.

2. The Paint Shop Pro window will be restored to its previous size with the captured window displayed.

Capture - Include Cursor

This option allows you to make a capture that includes the cursor. The cursor will not be included if you select "Capture"-"Area" or the cursor is outside of the area captured during "Capture"-"Window" or "Capture"-"Client Area". The cursor will be included when the menu item has a check mark next to it.

How To Activate or Deactivate Include Cursor

1. Select "Capture" - "Include Cursor".

Alternate Capturing Techniques

How To Capture A Full Screen, Client Area, Window - With A Menu Pulled-Down

1. From the "File", "Preferences", "Activate Capture" options, you must select "On Right Mouse Click"

2. From the Paint Shop Pro Menu Bar, select "Capture".

3. Select "Window", "Client Area", or "Full Screen". (With this method, you cannot capture an "Area" with a menu pulled-down.) Paint Shop Pro will reduce itself to an icon.

4. Display the window, client area, or full screen that you want to capture with a menu pulled-down.

5. Hold down the "Alt" key and press the underlined letter of the menu to be pulled-down. The pulled-down menu remains down when you release the keys.

6. Press the mouse button to activate the type of capture you selected.

   If you selected "Capture" - "Include Cursor", first position the cursor where you want it to be located in the captured image.

7. The Paint Shop Pro window will be restored to its previous size with the selected capture (including the pulled-down menu) displayed.

Window Menu

Use the scroll bar to see entries not currently visible in the Help window.

All the Window Menu options may be activated by selecting "Window" then the option of your choice. There are no associated dialog boxes that go with any of these menu options.

Tile

This option allows you to arrange image windows in a tiled display so that all opened image windows are sized to fit next to each other.

Cascade

This option allows you to arrange image windows in a cascaded display so that all opened image windows overlap each other so that each title bar is visible.

Arrange Icons

This option allows you to arrange all image icons in a nice orderly fashion along the bottom of the Paint Shop Pro window.

Close All

This option allows you to close all the opened images at once.

If, from the "File" - "Preferences" - "File Saving" - "Ask about saving changes to images that have changed, during ..." category, you checked the check box for "Windows - Close All", Paint Shop Pro will pause with a message box asking if you want to save changes to the image. Respond "Yes" or "No" to continue closing the images.

If, from the "File" - "Preferences" - "File Saving" - "Ask about saving changes to images that have changed, during ..." category, you did not check the check box for "Windows - Close All", Paint Shop Pro will not pause with a message box asking if you want to save changes to the image.

Duplicate

This option allows you to make a duplicate window of the active image.

Fit To Image

This option allows you to shrink or expand the window to fit the image if the image's window does not fit the image. Paint Shop Pro will not expand the window to exceed the size of the Paint Shop Pro main window.

List of Opened Image Files

The "Window" pulled-down menu options will accumulate a list of image files that are opened (including minimized to icons) in the Paint Shop Pro window. A check mark will be next to the file name of the active image. As you open more image files, their file names are appended to the list. As you close image files, their file names are deleted from the list. Select an image from the list to make it the active image.

Help Menu

Use the scroll bar to see entries not currently visible in the Help window.

You may select one of the "Help" menu options by clicking on the associated "Help" menu option. Each option, except "About", will open the Windows' Help System. Close the Help System window when you are done obtaining help.

Index

Use this selection to display a list of topics for using Paint Shop Pro. Click the topic of your choice for helpful information.

Keyboard

Use this selection to display helpful information about the "hot-keys" available for Paint Shop Pro.

Using Help

If you are new to Windows, use this selection to display helpful information about using the help screens. This is the help information that is built in to the operation of Windows. It will show you various ways you can access the help information, as well as tips about using Windows.

About

Use this selection to display the version of Paint Shop Pro that you are using.

1. Select "Help" - "About" from the pulled-down menu. This opens the "About Paint Shop Pro" dialog box describing the copyright and the version of Paint Shop Pro that you are using.

   It also displays the video resolution that you are running Windows in (width x height x bits-per-pixel), as well as the filename of your video driver.

2. Click "OK" (or press "Enter") in the dialog box.

Image File Formats

Different image file formats are capable of holding different quantities of colors. Each file format will have a reference to the number of bits-per-pixel that the format is capable of supporting.

1 bit-per-pixel refers to an image with up to 2 colors.

4 bits-per-pixel refers to an image with up to 16 colors.

8 bits-per-pixel refers to an image with up to 256 colors.

16 bits-per-pixel refers to an image with up to 32,768 colors or 65,536, depending on the image file format.

24 bits-per-pixel refers to an image with up to 16,777,216 colors.

32 bits-per-pixel also refers to an image with up to 16,777,216 colors.

BMP
CLP
CUT
DIB
EPS
GIF
IFF
IMG
JAS
JIF
JPG
LBM
MAC
MSP
PCD
PCX
PIC
RAS
RLE
TGA
TIF
WMF
WPG

BMP / DIB File Formats

The BMP and DIB files are known as "Device Independent Bitmap" files, or "DIB's". These files exist in two different formats:

OS/2 Format

The OS/2 formats were the first of the two different formats designed. Images saved using this format may be used with OS/2's Presentation Manager. OS/2 BMP and DIB files are not compressed (RGB encoded).

Windows Format

An enhanced "DIB" file format was released with Microsoft Windows. Windows BMP and DIB files may be saved using no compression (RGB encoded) or using run length encoded compression (RLE encoded). Compression may only be used on 4 and 8 bits-per-pixel images.

These files commonly use different extensions for their file names: BMP or DIB according to where they are used. Although their file name extensions are different, the files themselves are the same (within either OS/2 or Windows).
BMP files can be created with Windows' Paintbrush and used as "wallpaper" for the background when running Windows. See your Windows manual about using BMP files as wallpaper.
DIB files can be used as image files in the Windows environment. They can also be applied to computer multimedia systems that are emerging in the marketplace.

Format Characteristics

BMP-OS/2-RGB - Bits-per-pixel:	1, 4, 8, 24.
BMP-Windows-RGB - Bits-per-pixel:	1, 4, 8, 24.
BMP-Windows-RLE - Bits-per-pixel:	4, 8.
DIB-OS/2-RGB - Bits-per-pixel:	1, 4, 8, 24.
DIB-Windows-RGB - Bits-per-pixel:	1, 4, 8, 24.
DIB-Windows-RLE - Bits-per-pixel:	4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

BMP-OS/2-RGB - Bits-per-pixel:	1, 4, 8, 24.
BMP-Windows-RGB - Bits-per-pixel:	1, 4, 8, 24.
BMP-Windows-RLE - Bits-per-pixel:	4, 8.
DIB-OS/2-RGB - Bits-per-pixel:	1, 4, 8, 24.
DIB-Windows-RGB - Bits-per-pixel:	1, 4, 8, 24.
DIB-Windows-RLE - Bits-per-pixel:	4, 8.

CLP File Format

The CLP file format is used by the Windows Clipboard viewer. These files may be saved or loaded into the clipboard. The clipboard supports many different internal formats. The only formats supported by Paint Shop Pro are Bitmap and DIB.

Format Characteristics

CLP - Bitmap and DIB - Bits-per-pixel:	1, 4, 8, 24.

Paint Shop Pro Capability

Paint Shop Pro reads:

CLP - Bitmap and DIB - Bits-per-pixel:	1, 4, 8, 24.

Paint Shop Pro saves:

CLP - DIB - Bits-per-pixel:	1, 4, 8, 24.

CUT File Format

The CUT format comes from the Dr. Halo program. The CUT format does not contain palette information. The palette information for a CUT file is contained in a PAL file that has the same name (but with the PAL file extension). If no PAL file with the same name is contained in the same directory, the file is assumed to be a greyscale image.

Format Characteristics

CUT - Bits-per-pixel:	8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

CUT - Bits-per-pixel:	8.

EPS File Format

EPS is short for Encapsulated PostScript. EPS is a device-independent page description language for both text and graphics. The result of the device-independence allows the files to cross platforms and produce identical output on any PostScript printer. Due to the complexity of the language and its ability to include more than just graphics, Paint Shop Pro will only save to this format.

Format Characteristics

EPS - Bits-per-pixel: 1, 4, 8, 24.

Paint Shop Pro Capability

Paint Shop Pro saves:

EPS - Bits-per-pixel: 1, 4, 8, 24.

GIF File Format

GIF files were designed to create the smallest possible image files for uploading and downloading from electronic Bulletin Board Systems (BBS).

There are two GIF file versions; 87a and 89a. Version 87a was the first of the two versions to appear. Version 89a added new features to the 87a format.

Both versions may use an encoding method referred to as interlacing. When an image is saved by using four passes instead of just one, it is called interlacing. On each pass, certain lines of the image are saved to the file. If the program decoding a GIF file displays the image as it is decoded, the user will be able to see the four passes of the decoding cycle. This will allow the user to get a good idea of what the image will look like before even half of the image is decoded.

Some communication programs allow the user to download GIF files and view them as they are downloaded. If the image is interlaced, the user will be able to decide if the image is one they like before half of the download is complete. If the user does not like the image, the download can be aborted. This results in the saving of time and money for the person downloading the image.

Format Characteristics

All the GIF formats support bits-per-pixel: 1, 4, 8.
Both versions 87a and 89a may be interlaced.
GIF files may contain more than one image.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

GIF Version 87a-Non interlaced - Bits-per-pixel:	1, 4, 8.
GIF Version 87a-Interlaced - Bits-per-pixel:	1, 4, 8.
GIF Version 89a-Non interlaced - Bits-per-pixel:	1, 4, 8.
GIF Version 89a-Interlaced - Bits-per-pixel:	1, 4, 8.

If the GIF file contains multiple images, Paint Shop Pro will only process the first image in the file.

If a version 89a contains some of the enhanced file information, Paint Shop Pro will ignore the information and just retrieve the image.

IFF File Format

The IFF file format was developed by Electronic Arts for the Amiga computer. The file may contain more information than just the image. This extra information is generally for multimedia purposes. Paint Shop Pro will ignore all data except the actual image.

Format Characteristics

IFF - Bits-per-pixel:	1, 4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

IFF - Bits-per-pixel:	1, 4, 8.

IMG File Format

IMG files were designed to work with the GEM environment. The files were originally the result of the GEM Paint program. Since the application Ventura Publisher worked in the GEM environment, it also supported the IMG file format. In order to maintain compatibility, various other desktop publishing applications have added support for importing this format.

Format Characteristics

The IMG-Old Style - Bits-per-pixel: 1, 4, 8.
The IMG-New Style - Bits-per-pixel: 1, 4, 8.
Images that are more than 1 bit-per-pixel are greyscaled images.

Paint Shop Pro Capability

Paint Shop Pro reads:
IMG-Old Style - Bits-per-pixel: 1, 4, 8.
IMG-New Style - Bits-per-pixel: 1, 4, 8.

Paint Shop Pro saves:
IMG-Old Style - Bits-per-pixel: 1, 8.
(This will allow applications that have not added support for the "New-style" to use images saved by Paint Shop Pro.)

JAS File Format

The JAS file format was used with Paint Shop Pro version 1.xx. At that time the JPEG file format had not been sufficiently standardized so the JAS file format was created as an interim solution. Since the JPEG file format has now become standardized the JAS file format has become obsolete. To support those users that still have JAS files, this version of Paint Shop Pro will read but no longer save to the JAS file format. If you want to take advantage of a lossy format for higher compressions, use the JIF/JPG file format.

Format Characteristics

JAS - Bits-per-pixel:	8, 24

Paint Shop Pro Capability

Paint Shop Pro reads:

JAS - Bits-per-pixel:	8, 24

JIF/JPG File Formats

The Joint Photographic Expert Group created a new format known as JPEG. For sometime the JPEG format existed as only a series of required steps to compress an image. No standard was given as to how the resulting compressed image should be saved to a file. As a result many JPEG files were being created but could not be read by any other application. Finally, a group of computer industry leaders developed a standard that is known as JPEG File Interchange Format (JFIF). Originally these new JFIF files used the extension of JPG. The latest standard by the JFIF group calls for the use of JIF as the file name extension. Unless you have an application that requires the use of JPG you should use the JIF file name extension. The JPEG file format only supports 24 bits per pixel and 8 bits per pixel greyscaled images.

Format Characteristics

JIF/JPG - Bits-per-pixel:	8, 24

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

JIF/JPG - Bits-per-pixel:	8, 24

Since the JPEG file format is a lossy format, you should load your image after saving it to ensure that the amount of loss is acceptable.

LBM File Format

The LBM file format comes from Deluxe Paint. The file format uses a run length encoding compression to help reduce the size of the files.

Format Characteristics

LBM - Bits-per-pixel:	1, 4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

LBM - Bits-per-pixel:	1, 4, 8.

MAC File Format

MAC files come from the Macintosh program MacPaint. Large libraries of clip art exist in the MAC format. When the MAC files started migrating from the Macintosh to the PC world, a header was added to the file format.

Format Characteristics

MAC- No header - Bits-per-pixel:	1.
MAC- Header - Bits-per-pixel:	1.

The MAC format requires an image width of 576 pixels and a height of 720 lines.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

MAC- No header - Bits-per-pixel:	1.
MAC- Header - Bits-per-pixel:	1.

MSP File Format

MSP files come from the Microsoft Paint program (that came with Windows versions prior to version 3.0). There are two versions of the MSP file format.
Old Version
New Version

Format Characteristics

MSP-Old Version - Bits-per-pixel:	1.
MSP-New Version - Bits-per-pixel:	1.

Paint Shop Pro Capability

Paint Shop Pro reads:

MSP-Old Version - Bits-per-pixel:	1.
MSP-New Version - Bits-per-pixel:	1.

Paint Shop Pro saves:

MSP-New Version - Bits-per-pixel:	1.

PCD File Format

The PCD file is the Kodak Photo CD file format. This allows photographs to be placed on CDs for use with compact disks players that are connected to computers and televisions. The images are placed on the CDs by photofinishers that use the Kodak Photo CD imaging workstation. Thus software applications, like Paint Shop Pro can read but not write the PCD format. Five different sizes of each image are placed on the CD. When you open a PCD file you will be prompted for which of the five sizes you would like to open. The largest size, 2048x3072 at 24 bits per pixel requires 18.9 megs of memory to load. Since Paint Shop Pro does not split images and Windows 3.1 limits a block of memory to 16 megs, you will not be able to load the largest 24 bits per pixel images into Paint Shop Pro under Windows 3.1.

Format Characteristics

PCD - Bits-per-pixel:	8, 24.

Paint Shop Pro Capability

Paint Shop Pro reads:

PCD - Bits-per-pixel:	8, 24.

PCX File Format

PCX files were originally created for use with the Zsoft Paintbrush program. With no standard to the industry, this format became the standard by default. This format is supported by more applications than any other format.

Format Characteristics

PCX Version 0 - Bits-per-pixel:	1.
PCX Version 2 - Bits-per-pixel:	1, 4.
PCX Version 3 - Bits-per-pixel:	1, 4.
PCX Version 5 - Bits-per-pixel:	1, 4, 8, 24.

Paint Shop Pro Capability

Paint Shop Pro reads:

PCX Version 0 - Bits-per-pixel:	1.
PCX Version 2 - Bits-per-pixel:	1, 4.
PCX Version 3 - Bits-per-pixel:	1, 4.
PCX Version 5 - Bits-per-pixel:	1, 4, 8, 24.

Paint Shop Pro saves:

PCX Version 0 - Bits-per-pixel:	1.
PCX Version 2 - Bits-per-pixel:	1, 4.
PCX Version 5 - Bits-per-pixel:	1, 4, 8, 24.

Version 3 files do not contain palette information. If the file is a version 3, Paint Shop Pro will use the default VGA colors used by Windows as the palette. This may result in a different looking image than you would see when using some other image viewer.

PIC File Format

The PIC files that are supported come from Pictor/PC Paint. This PIC file format is not compatible with the Lotus PIC files.

Format Characteristics

PIC - Bits-per-pixel: 1, 4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

PIC - Bits-per-pixel: 1, 4, 8.

RAS File Format

RAS files are Sun Microsystems raster file format files. There are three types of RAS files:
Type 0 - Old style.
Type 1 - Modern style.
Type 2 - Experimental.

Only the "Type 1 - Modern Style" is explained here.

Format Characteristics

RAS-Type 1-Modern Style - Bits-per-pixel: 1, 8, 24, 32.

Paint Shop Pro Capability

Paint Shop Pro reads:
RAS-Type 1-Modern Style - Bits-per-pixel: 1, 8, 24, 32.

Paint Shop Pro saves:
RAS-Type 1-Modern Style - Bits-per-pixel: 1, 8, 24.

RLE File Formats

The RLE format comes in two types; Windows and CompuServe.

CompuServe Format
The CompuServe format is very limited in what it can hold. Images must always be 1 bit-per-pixel and the size of the image must be either 256 by 192 or 128 by 96.

Windows Format
Windows RLE files are Windows "DIB" files that use one of the RLE compression routines. Thus, saving an image as a DIB or BMP, using one of the RLE compressions would produce an identical file as saving the image as an RLE file. The only difference would be the file name extension. An RLE image file may be used as a replacement opening screen for Windows.

Format Characteristics

RLE - CompuServe - Bits-per-pixel:	1.
RLE - Windows - Bits-per-pixel:	4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

RLE - CompuServe - Bits-per-pixel:	1.
RLE - Windows - Bits-per-pixel:	4, 8.

TGA File Format

The Targa TGA format was developed by Truevision for their Targa and Vista products. It is an industry standard although not as widely supported as PCX or TIFF formats. TGA files may be saved as non-compressed or compressed (run-length encoded).

Format Characteristics

TGA - No Compression - Bits-per-pixel:	8, 16, 24, 32.
TGA - Compressed - Bits-per-pixel:	8, 16, 24, 32.

Paint Shop Pro Capability

Paint Shop Pro reads:

TGA - No Compression - Bits-per-pixel:	8, 16, 24, 32.
TGA - Compressed - Bits-per-pixel:	8, 16, 24, 32.

Paint Shop Pro saves:

TGA - No Compression - Bits-per-pixel:	8, 16, 24.
TGA - Compressed - Bits-per-pixel:	8, 16, 24.

Since Windows does not recognize 16 and 32 bits-per-pixel, Paint Shop Pro will treat them as 24 bits-per-pixel. A 16 bits-per-pixel image will be promoted to 24 bits-per-pixel. A 32 bits-per-pixel image will be demoted to a 24 bits-per-pixel image. This should not make any difference to your image since the 8 extra bits of a TGA 32 bits-per-pixel file are used to store Alpha or transparency information.

TIFF File Format

The Tagged Image File Format (TIFF) was designed to become the standard format. In order to become the standard, the format was designed to handle just about any possibility. The result of this design provided the flexibility of an infinite number of possibilities of how a TIFF image is saved. Therefore, no application, including Paint Shop Pro, can claim to support all TIFF variations. The best that an application can do is to support as many TIFF variations as possible, but there will always be an obscure variation that will cause a problem for some application, including Paint Shop Pro.

The TIFF format differentiates between types of images. These categories are: black and white, greyscaled and colored. Paint Shop Pro supports all of these categories.

Format Characteristics

The TIFF format can use one of six encoding routines. These encoding routines are: No-compression, Huffman, Pack Bits, LZW, Fax Group 3, and Fax Group 4.

TIFF-No Compression - Bits-per-pixel:	1, 4, 8, 24.
TIFF-Huffman - Bits-per-pixel:	1.
TIFF-Pack Bits - Bits-per-pixel:	1, 4, 8, 24.
TIFF-LZW - Bits-per-pixel:	1, 4, 8, 24.
TIFF-Fax Group 3 - Bits-per-pixel:	1.
TIFF-Fax Group 4 - Bits-per-pixel:	1.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

TIFF-No compression - Bits-per-pixel:	1, 4, 8, 24.
TIFF-Huffman - Bits-per-pixel:	1.
TIFF-Pack Bits - Bits-per-pixel:	1, 4, 8, 24.
TIFF-LZW - Bits-per-pixel:	1, 4, 8, 24.

If an application is having a problem reading compressed TIFF files created by Paint Shop Pro, try re-saving the file without compression.

WMF File Format

The WMF format is the Windows Meta File. A meta file is not a bitmapped image like most of the other formats. Rather it is a series of graphical commands. When you open a WMF file, the image may be rescaled to a new size. If the original size of the image is know it will be displayed in the dialog box for your reference. You may then enter the width and height that you would like the meta file imported as. When Paint Shop Pro imports the image it converts the graphical commands to a bitmapped image.

Format Characteristics

WMF - Bits-per-pixel:	1, 4, 8, 24.

Paint Shop Pro Capability

Paint Shop Pro reads:

WMF - Bits-per-pixel:	1, 4, 8, 24.

WPG File Format

The WPG format is the format used by WordPerfect. It first appeared with the release of WordPerfect 5.0. With the release of version 5.1, the format was changed.

A WPG file may contain an image made up of vector data or raster data (a bitmapped image). Paint Shop Pro will only process the raster data of the file. If there is no raster data to a WPG file, then Paint Shop Pro will indicate this with a message box. Since there is no raster data, Paint Shop Pro will not have an image to display, and therefore will not process the file.

Format Characteristics

WPG Version 5.0 - Bits-per-pixel:	1, 4, 8.
WPG Version 5.1 - Bits-per-pixel:	1, 4, 8.

Paint Shop Pro Capability

Paint Shop Pro reads and saves:

WPG Version 5.0 - Bits-per-pixel:	1, 4, 8.
WPG Version 5.1 - Bits-per-pixel:	1, 4, 8.

Use the format option that is the same as the version of WordPerfect in which you will use the image.

Questions & Answers

The following are the most commonly asked questions. Click on the question of your choice to see the answer.

Color Problems

Q. Why are the colors wrong when I display an image with Paint Shop Pro?
Q. Why is my image grainy when viewed in Paint Shop Pro?
Q. I have a video card in my computer that is capable of displaying more colors than mentioned in the last two questions, but I am having the same results. Why?
Q. Why do the colors of the wallpaper change as different images are displayed?

File Formats

Q. Why does Paint Shop Pro refuse to load a WPG image?
Q. Why can't Paint Shop Pro open an image file created in vector graphics, such as Corel DRAW or AutoCad?
Q. How do I get my MAC image file from a PC to a Macintosh?

Memory Error Messages

Q. Why am I getting memory error messages when working with images, and what do they mean?

Operations

Q. Is there any difference between using "Image"-"Crop" versus "Capture"-"Area"? Don't they actually do the same thing?
Q. Why must an image be either 24 bits per pixel, or 8 bits per pixel and greyscaled to use some of the menu options?

Windows Opening Screens

Q. How can I use Paint Shop Pro to make a different opening screen for Windows?
Q. I used Paint Shop Pro to create an RLE file for a new opening screen. But when I use this file as the new opening screen, the colors are all wrong. Why?

Q. Why are the colors wrong when I display an image with Paint Shop Pro?

A. Windows requires a 16 color driver to use a set palette. If you display a 16 color image but all of the colors of the image are outside of the Windows set palette then none of the colors can be displayed properly. Windows will map the colors of the image to the closest colors from the set palette. This will result in the image being displayed with the wrong colors.

Windows requires a 256 color driver to reserve 20 colors for Windows' use. Thus you do not truly have 256 colors, but rather 236 plus 20 set colors. If you try to display a 256 color image that does not use any of the 20 set colors, then only 236 colors can be used. Windows will map the extra 20 colors, of the image, to the closest of the other 236 colors or the 20 set colors.

Q. Why is my image grainy when viewed in Paint Shop Pro?

A. The grainy look you see is a dithering pattern. Paint Shop Pro will automatically dither an image that has more colors than the video system is capable of displaying. This gives you the best color approximation possible in this environment. A short discussion of video systems will help to explain:

If you are using a video card that is capable of 256 colors but you are using a video driver that will only display 16 colors then your images with more than 16 colors will be displayed using only 16 colors. It is not uncommon to have a card capable of 256 colors and be using a driver that will only display 16 colors. The standard VGA card is capable of 256 colors in only one of its video modes. This 256 color mode is not used by Windows. The mode that is used by Windows uses only 16 colors. Thus a standard VGA card under Windows will use Windows' standard VGA driver and only be displaying 16 colors.

These 16 colors are set to specific colors for the standard Windows palette. Any color displayed in Windows in this condition will be displayed as the closest of these 16 colors. For example, a typical portrait in 256 colors would have all the flesh tone variations displayed to the nearest of the 16 Windows colors. The results, without dithering, usually appear lobster red or a cold grey.

Paint Shop Pro watches for the condition where the image has more colors than your video driver is capable of displaying. If this condition exists Paint Shop Pro will dither the image down to the number of colors that your video driver is capable of displaying. The resulting dithered image will be a close approximation of what the image looks like. Paint Shop Pro still maintains the original image in memory. If you decide to change the image in any way, that change will be applied to the original image and a new dithered image will be created to display your changes. In this way, you can work with images that are beyond the limits of your video driver.

Q. I have a video card in my computer that is capable of displaying more colors than mentioned in the last two questions, but I am having the same results. Why?

A. In order for Windows to run on your computer, Windows must communicate with your computer hardware by way of drivers. The driver that is used for your video system is called a video driver. This driver has the responsibility of being the middle man between Windows and your video system. This results in some limitations being placed on your video system. Windows places some limitations on the video driver in order that it may work properly with numerous applications all running at the same time. The video driver places limitations on your video system if you are using a video driver that is capable of fewer colors than your video system is capable of. To display the most colors possible, be sure the driver that will match your card's maximum number of colors is installed in Windows.

Q. Why do the colors of the wallpaper change as different images are displayed?

A. Windows can only handle so many colors at one time. When Paint Shop Pro displays an image, Windows lets Paint Shop Pro change the palette of colors to match that of the image Paint Shop Pro is displaying. By allowing Paint Shop Pro to have control of the palette of colors that are used, Windows cannot maintain the colors of the wallpaper. Once Paint Shop Pro is closed, the wallpaper's colors should return to normal.

Q. Why does Paint Shop Pro refuse to load a WPG image?

A. WPG images are saved using either vector data or bitmap data. Paint Shop Pro will only handle bitmap data. If the WPG file that you tried to use only contains vector data, then Paint Shop Pro will display a message indicating that the file did not contain a bitmap. A common source of vector only data are images created by DrawPerfect. More on this subject is discussed in the next question.

Q. Why can't Paint Shop Pro open an image file created in vector graphics, such as Corel DRAW or AutoCad?

A. Because Paint Shop Pro mainly works with bit-mapped images. Bit-mapped images are made up of pixels. Vector images are made up of geometric shapes, such as circles, squares, etc. You can, however, get a vector graphics image into the bit-mapped format used by Paint Shop Pro. Here's how you can do it.

1. Use any Windows application that will read and display the vector graphics image in a window. Leave the image displayed.

2. Use the Paint Shop Pro "Capture" option to capture all (or any part) of the displayed vector graphics image.

3. Use the Paint Shop Pro "Save As" option to save the captured image. The image will be saved as a bit-mapped image in the format of your choice.

Q. How do I get my MAC image file from a PC to a Macintosh?

A. You can transfer your MAC image from the PC to the Macintosh with this procedure:

1. Use Paint Shop Pro with your PC computer to save your image file to the "MAC - No Header" format.

2. Save (or copy) the MAC image file onto a 3.5 inch double density floppy diskette, so it will fit the Macintosh floppy drive.

3. Place the 3.5 inch diskette into a Macintosh computer.

4. Use the Macintosh Apple File Exchange program to copy the MAC file from the floppy diskette to the Macintosh disk.

5. Use "Resedit" (or use "Fedit") to change the file type to "PNTG".

6. Now you should be able to use the "MacPaint" program to read the image file on the Macintosh.

Q. Why am I getting memory error messages when working with images, and what do they mean?

A. Paint Shop Pro keeps the current image in memory. This makes Paint Shop Pro run faster than if it stored your current image on the disk and then accessed the disk each time some part of the image data was needed. Keeping the image in memory may require substantial amounts of memory, depending on the size and resolution of the image.

Windows 3.1, in Enhanced Mode, can simulate additional computer memory by use of a "swap file". Refer to your Windows manual for the procedure to make a swap file. This allows systems with large amounts of memory to operate Paint Shop Pro very quickly, while systems with less memory cause Paint Shop Pro to become a disk based application.

To help you understand how much memory is required, here are some memory requirement examples:

An image with a height of 800, a width of 600, and a bits per pixel of 1 would require 58K of memory. (800 x 600 /8 /1024)

An image with a height of 800, a width of 600, and a bits per pixel of 8 would require 468K of memory. (800 x 600 /1024)

An image with a height of 800, a width of 600, and a bits per pixel of 24 would require 1.4Meg of memory. (800 x 600 x3 /1024)

As you can see from these examples, the amount of required memory increases dramatically as the number of colors are increased.

If you do not have enough memory to handle an operation, Paint Shop Pro will display a message to inform you of that. There are two different types of error message that Paint Shop Pro may display.

The first type is a "Not enough contiguous memory available" and the other is "Not enough system memory available". When either of these errors occurs, the original image will be restored and you will be able to save the image at that point. Below are the procedures to follow if you get one of these error messages.

Not enough CONTIGUOUS memory available:

This message indicates that Windows has enough computer system memory available to complete the operation, but there are memory blocks allocated which are dividing this area into smaller pieces. This is usually due to an application running in the background. Make sure that all other applications have been closed down. Even if an application only takes a tiny amount of memory, it can divide 8 megabytes down to four 2 megabyte blocks. If all other applications have been closed, save your image and restart Windows.

Not enough SYSTEM memory available:

This message indicates that there is not enough computer system memory to complete the operation. Again, you should make sure that all other applications have been shut down. Also, any Windows wallpaper backgrounds should be removed. A 24 bit BMP wallpaper at 800x600 uses over 1.4 megabytes of memory. If all else fails, you should exit Windows and increase the size of its swap file. See your Windows manual for information on increasing the size of a swap file.

Q. Is there any difference between using "Image"-"Crop" versus "Capture"-"Area"? Don't they actually do the same thing?

A. These two functions have completely different purposes. "Image"-"Crop" will work on an image that has been opened in Paint Shop Pro and "Capture"-"Area" is used to capture part of any Windows screen outside of Paint Shop Pro.

Q. Why must an image be either 24 bits per pixel, or 8 bits per pixel and greyscaled to use some of the menu options?

A. Some menu options, like the filters and resampling, create new pixel values that may not have been contained in the original image. Only 24 bits per pixel images and 8 bits per pixel greyscaled images have the required internal structure to hold any and all of these new pixel values that are created during these operations.

Q. How can I use Paint Shop Pro to make a different opening screen for Windows?

A. You can use an RLE image format file. (It must be a 16 color, 4 bits-per-pixel RLE file not exceeding 64K.) Here's how you can do it.

1. Go to DOS and rename your RLE image file to be XXXLOGO.RLE ("XXX" represents "VGA" or "EGA", corresponding to the video monitor type you are using). This is done by changing to the directory where your image resides and typing REN PICTURE.RLE XXXLOGO.RLE ("PICTURE" represents your filename).

2. Copy this file to the Windows directory by typing COPY XXXLOGO.RLE C:\WINDOWS and pressing "ENTER".

3. Return to Windows and select Windows "Setup", select "Options", then "Change System Settings", then select "Display".

4. Change to a different monitor display that is compatible with your system. (If you are using a VGA color system, you could select "VGA with monochrome display".) When Windows is changed to use another video display, it will rebuild the WIN.COM file. The WIN.COM file uses the XXXLOGO.RLE file for screen display when Windows is started.

5. Now repeat step 4 changing back to your original display type.

Q. I used Paint Shop Pro to create an RLE file for a new opening screen. But when I use this file as the new opening screen, the colors are all wrong. Why?

A. The Windows 3.x start up program does not pay attention to the palette of an RLE file. Since Paint Shop Pro will not alter the palette during the saving of an RLE file, your palette is not matching the palette that the Windows 3.x start up program is using.

One way around this problem is to use Windows Paintbrush to alter the palette for you. To do this:

1. Use Paint Shop Pro and save your original image as a BMP file (RGB encoding).

2. Use Paintbrush to open the BMP file you just created. Now have Paintbrush save the image as a PCX file.
   Note: When Paintbrush saves a 16 color image as a PCX file, it alters the original palette to the same palette used by the Windows 3.x startup program.

3. Use Paint Shop Pro to read in the PCX file you just created. Now have Paint Shop Pro to save this image as an RLE file.