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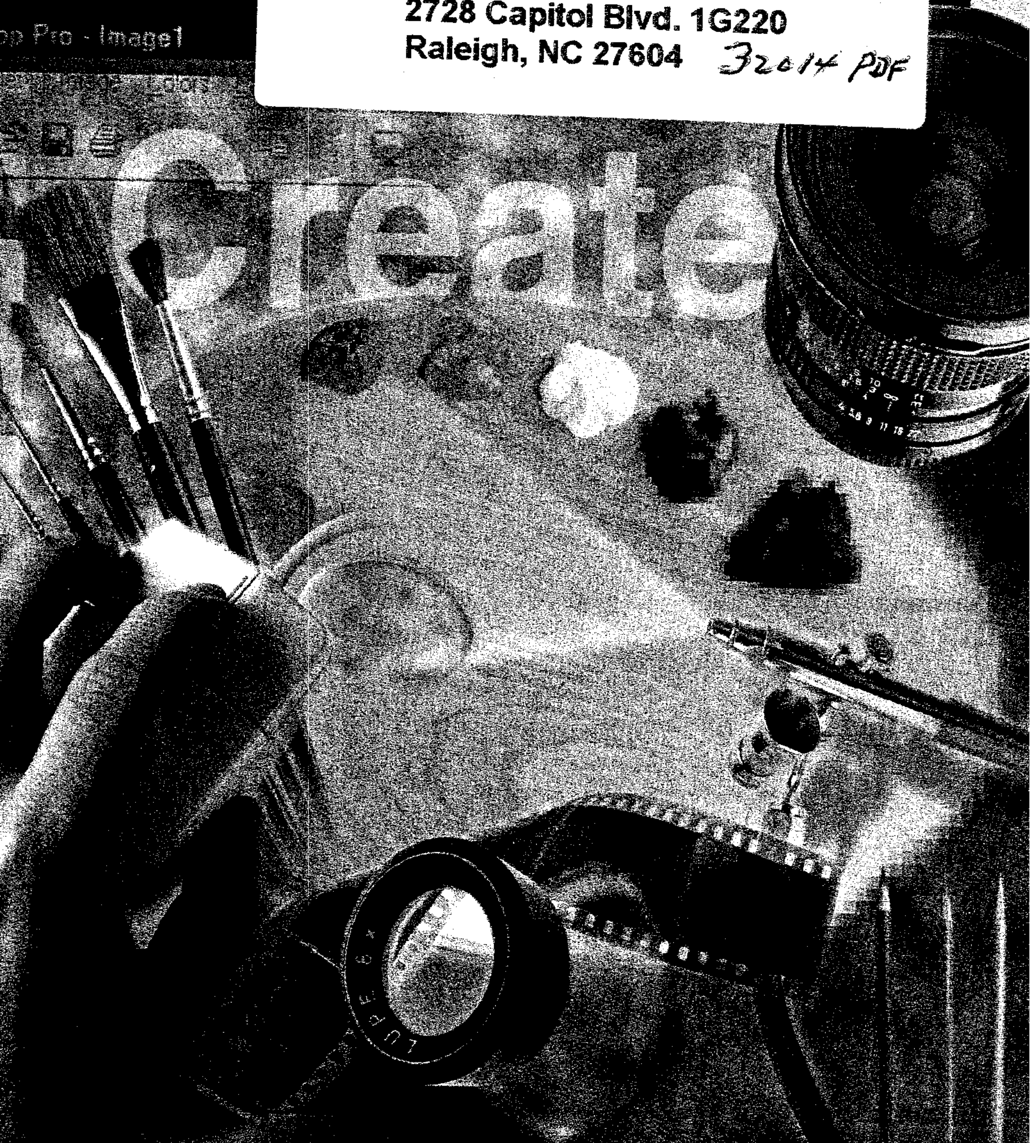
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Easy image and photo editing for

Ref 0065

Paint Shop Pro 5

User's Guide

Jasc Software

the power to create®

Jasc Software, Inc. • 11011 Smetana Road • Minnetonka, MN 55343

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Introduction

WELCOME TO PAINT SHOP PRO 5

Welcome to Paint Shop Pro 5, the newest version of the award-winning program from Jasc Software, Inc. Paint Shop Pro 5 contains the tools you will need to paint, edit, and retouch your images, and a browser to help manage your files. It is powerful enough for the professional and friendly enough for the beginner. Whether you work with graphics daily or occasionally and create Web or printed pages, Paint Shop Pro 5 is the program for you.

WHAT'S NEW IN VERSION 5?

New Features

Paint Shop Pro version 5 now supports: layers; digital cameras; CMYK separations; multi-level undos; Adobe-compatible plug-ins; import/export and file format plug-ins; pressure-sensitive drawing tablets; anti-aliasing for lines, objects, and selections; Jasc Software's own PSP file format; user-definable grids; and rulers.

New Tools

Paint Shop Pro 5 has several new tools, including: an adjustable cropping tool; a free-form interactive deformation tool; several new selection tools; an expanded selection of retouching brushes; a PictureTube tool; a Microsoft Explorer style image browser, and much more.

ABOUT THIS GUIDE

This User's Guide assumes that you understand and are comfortable using the Windows 95 or Windows NT operating system. Please take time to become familiar with your computer's operating system before using Paint Shop Pro 5. I you are new to Windows, you may find the Windows Help files useful. To open the Windows Help files, click the Start button, and then click Help. Double-click the "Tour: 10 minutes to using Windows" icon for an overview of the Windows features.

This guide uses the following conventions:

Mouse

Click	Press and release the primary mouse button. The primary mouse button is the button you use most often. For most people, this is the left mouse button.
Right-click	Press and release the secondary mouse button. The secondary button is the button you use least often. For most people, this is the right button.
Double-click	Press and release the primary mouse button twice.
Drag	Move the mouse while you hold down the primary mouse button.
Release	Remove your finger from a mouse button.
Scroll	Scroll bars along the right and bottom sides of an image can be used to move the image up and down and left and right within the window. To use a scrollbar, either click and hold one of the arrow buttons at either end of the bar, or drag the scroll bar slider.

Keyboard

<Tab>	Press the <Tab> key to move from one text box to the next or to make the floating palettes disappear and reappear.
<X>	Indicates a letter or word (the letter X or word X) on the keyboard.

Using the keyboard to carry out commands often involves pressing keys togethe or in succession.

<Ctrl>+<A>	(Or any two keys joined by a plus sign) Press and hold down th <Ctrl> key while pressing <A>.
<Shift>+Click	Press and hold down the <Shift> key while clicking a button or object.

Terminology

Cancel Button	Click this button in a dialog box to close the box without applying the settings.
Check Box	Click it to turn an option on and off. When the option is selectec the box contains a check mark; when the option is not selected, the box is blank.
Choose	Used to indicate you should select a command or feature, usually by clicking it. At times this involves opening list boxes, scrolling, and clicking a choice.
Slider	Drag the slider or press the keyboard arrows to move along a range of settings. With most sliders, moving to the left or down reduces an effect or value, and moving to the right or up increases it.
Spin Control	The buttons with upward and downward pointing arrows at th right-hand side of number boxes. Click a button to increase or decrease the numbers by one. Press and hold a button to increa: or decrease the numbers rapidly.

HE TUTORIAL

The tutorial included in Paint Shop Pro 5 consists of several step-by-step lessons that show you how to use the program. It begins by explaining commonly used tools and adds to them with each lesson. The later lessons employ many of the sophisticated tools and features of interest to experienced users and professionals.

The Tutorial section of the manual contains the lessons and pictures to assist yo If you are familiar with Paint Shop Pro, work through the lessons using new features to get comfortable with them. If you are new to graphics, you might prefer to work through the lessons sequentially.

The images you will use in the lessons are located in the Tutorial folder on the CD-ROM. You can open them directly from the CD-ROM or copy them to your hard drive.

ETTING TECHNICAL SUPPORT

The "Troubleshooting" section of this guide answers the questions asked most frequently about Paint Shop Pro. You will also find extensive information in the online Help.

If none of these resources addresses your problem, you can get additional help i one of the following ways:

- Outside the United States and Canada, contact the local distributor. They are listed in the online Help.
- Within the United States or Canada, contact Jasc Software, Inc. at:

Email	techsup@jasc.com
Web site	http://www.jasc.com
Telephone	(612) 930-9171
Mail	Jasc Software, Inc. 11011 Smetana Road Minnetonka, MN 55343 USA

CHAPTER

Getting Startec

OUR SYSTEM SETUP

inimum System Requirements

Computer	486 Processor
Operating System	Windows 95 or Windows NT 4
Hard Drive	10 MB free for minimum installation
Other Drives	CD-ROM drive or floppy disk drive
Monitor	256 color display
RAM	12 MB. Editing an image requires free memory of 2 to 3 times the image's uncompressed file size.
Miscellaneous	Mouse or other pointing device

ecommended System Requirements

As with any other graphics program, the highest resolution 24 or 32 bit video display, most RAM memory, fastest processor, and largest hard disk that you ca afford will increase your enjoyment of the program. While you can run Paint Shop Pro 5 on a computer with only 12 MB RAM, we recommend that you run i on a computer with at least 16 MB.

If you have a pressure-sensitive tablet, you can use it with Paint Shop Pro to var the opacity and color of your brushes.

NSTALLING PAINT SHOP PRO

Paint Shop Pro, which now includes Animation Shop, the new animation creator is available on a CD-ROM. The program installs like most other Windows 95 or Windows NT 4.0 applications.

To install Paint Shop Pro and/or Animation Shop from the CD-ROM, do the following:

1. If Windows 95 / Windows NT 4.0 isn't running, start it now.
2. Insert the Paint Shop Pro CD into your CD-ROM drive.
   Windows should detect the CD and automatically run the installation program. If the computer's automatic detection feature is turned off, right-click the CD-ROM icon, and choose Install.
3. Click Setup Paint Shop Pro to proceed with the setup.
   You can install both the Paint Shop Pro and Animation Shop programs, only Paint Shop Pro, or only Animation Shop by selecting or clearing the appropriate check boxes.
4. Follow the on-screen prompts to complete the installation.

EGISTERING PAINT SHOP PRO 5

If you ordered Paint Shop Pro 5 by phone or mail directly from Jasc Software, Inc., you are already a registered user. If you purchased the program at a store, please complete and mail the registration card. Registered users receive upgrade notifications, special product offers, and technical support.

TARTING PAINT SHOP PRO

You can start Paint Shop Pro:

- From the Start menu
- From My Computer or the Windows Explorer

rom the Start Menu

To start Paint Shop Pro from the Start menu:

1. Click the Start button on the Taskbar. The Start menu opens.
2. Choose Programs. The Programs folder opens.
3. Choose Paint Shop Pro. The Paint Shop Pro folder opens.
4. Click Paint Shop Pro 5.

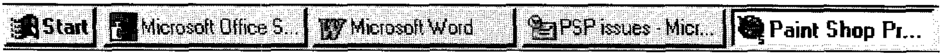
From My Computer or the Windows Explorer

To start Paint Shop Pro from My Computer or the Windows Explorer, navigate the Paint Shop Pro folder and double-click PSP.EXE. You'll find PSP.EXE in the drive and folder that you entered during installation. If you used the default setup, PSP.EXE is in C:\PROGRAM FILES\PAINT SHOP PRO.

ACTIVATING PAINT SHOP PRO

If you're using another program and want to return to Paint Shop Pro, click its icon on the Windows Taskbar.

Taskbar with Paint Shop Pro Icon

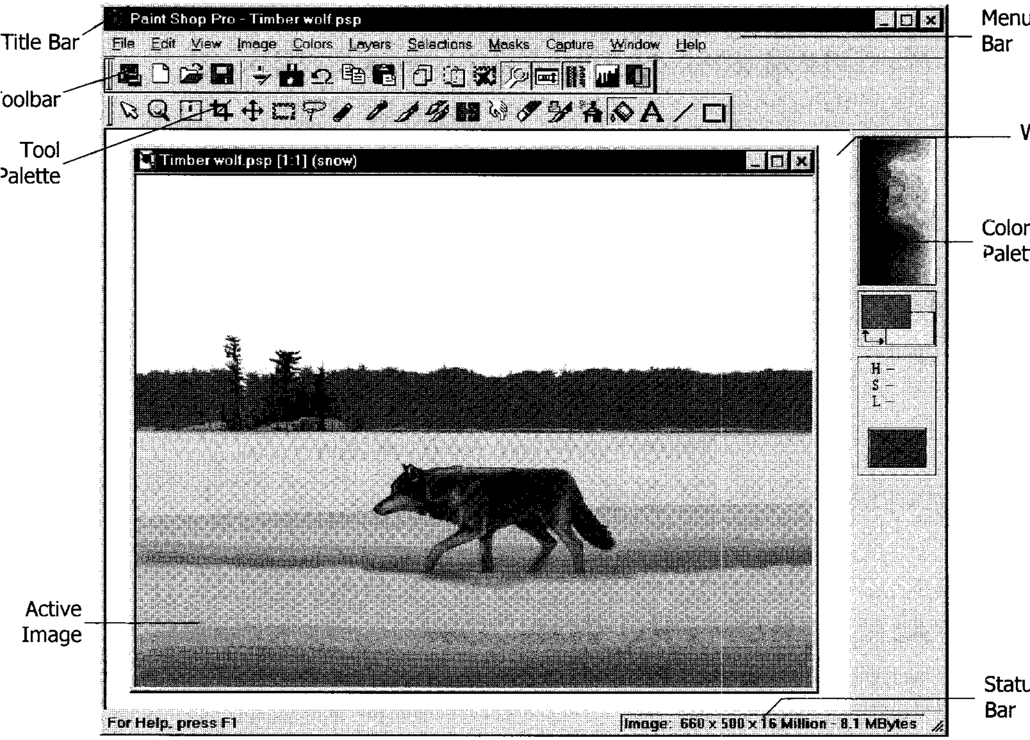


THE PAINT SHOP PRO WINDOW

The first time you start Paint Shop Pro, the Tip of the Day and File Associations dialog box appear. The Tip of the Day contains hints to help you use the program more efficiently. The File Associations dialog box lets you assign file formats to Paint Shop Pro in the Windows registry so the computer will launch Paint Shop Pro whenever you seek to view or edit these types of files. To edit the file associations, access this dialog box from the Preferences command in the File menu.

The main window appears. This window is your workspace, and it contains the tools you will use to create, edit, and print images. When you first open Paint Shop Pro, your window will look similar to the one on the following page. Some of the palettes may not be visible or may be in different locations. This is normal The toolbars and palettes can be moved around the screen, hidden, and displayed as needed.

Paint Shop Pro Main Window

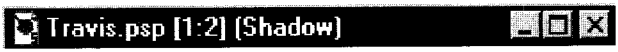

Title Bar
oolbar
Tool
alette
Active
Image
Menu
Bar
W
Color
Palet
Statu
Bar
Paint Shop Pro - Timber wolf.psp
File Edit View Image Colors Layers Selections Masks Capture Window Help
Timber wolf.psp [1:1] (snow)
H
S
L
For Help, press F1
Image: 660 x 500 x 16 Million - 8.1 MBytes

hat's in the Main Window?

Title Bar

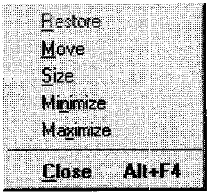
The Title bar displays the program control icon, the application or active image title, and the minimize, maximize, and close buttons.

Title Bar


Travis.psp [1:2] (Shadow)

Control Icon

Control Menu


Restore
Move
Size
Minimize
Maximize
Close Alt+F4

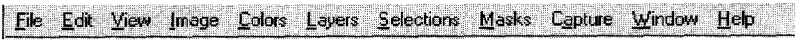
Standard Window Buttons

Minimize	_	Reduces window to an icon
Maximize	□	Enlarges window to fill the screen
Restore	🗗	Returns window to its last non-minimized, non-maximized position
Close	×	Closes the window

Menu Bar

The Menu bar displays the menu headings. The menus available depend on wh type of window is open in the workspace. There are a total of three menus – the no document open, the image is open, and the Browser is open menu – which a: grouped by type of command. The commands you will use most frequently are also displayed on the toolbar and palettes.

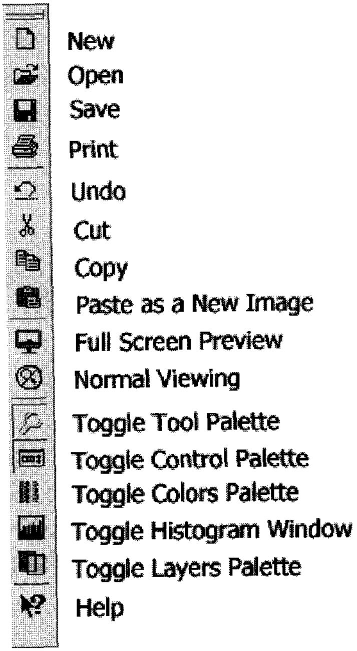
Menu Bar


File
Edit
View
Image
Colors
Layers
Selections
Masks
Capture
Window
Help

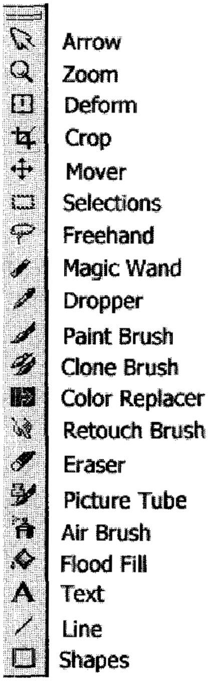
Toolbar

The toolbar provides buttons that access some of the frequently-used commands in the menus. If a command is unavailable, its button appears greyed-out. To add and remove the toolbar buttons, see Chapter 12, "Configuring Paint Shop Pro."

Toolbar


New
Open
Save
Print
Undo
Cut
Copy
Paste as a New Image
Full Screen Preview
Normal Viewing
Toggle Tool Palette
Toggle Control Palette
Toggle Colors Palette
Toggle Histogram Window
Toggle Layers Palette
Help

Tool Palette


Arrow
Zoom
Deform
Crop
Mover
Selections
Freehand
Magic Wand
Dropper
Paint Brush
Clone Brush
Color Replacer
Retouch Brush
Eraser
Picture Tube
Air Brush
Flood Fill
Text
Line
Shapes

Tool Palette

The Tool palette contains the image-editing tools. When you click a tool button, the Control palette displays its options.

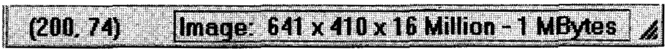
Workspace

The workspace is the area of the main window where you work with images and the Browser.

Status Bar

The status bar, which appears along the bottom of the window, contains information about Paint Shop Pro tools and active images. When you point the cursor at an item or control, it displays a brief description. With an active image, it displays the size in pixels and memory (RAM) needed by the image, and the coordinates of the cursor.

Status Bar

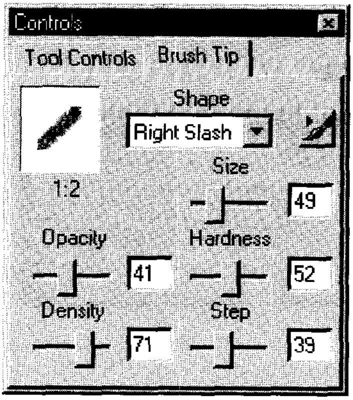


(200, 74) Image: 641 x 410 x 16 Million - 1 MBytes

Color Palette

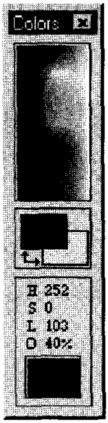
The Color palette contains the selection of available colors and displays the activ foreground and background colors. It appears on the right side of the window when you first start Paint Shop Pro.

Control Palette



Shape: Right Slash
1:2
Size: 49
Opacity: 41
Hardness: 52
Density: 71
Step: 39

Color Palette



H 252
S 0
L 103
O 40%

The following items will also appear when you first start Paint Shop Pro: the Control and Layer palette and the Histogram window. They are not attached to the main window and can be moved to any position on the screen.

Control Palette

Tool Control Tab

The Tool Control tab contains the options for modifying the image-editing tools

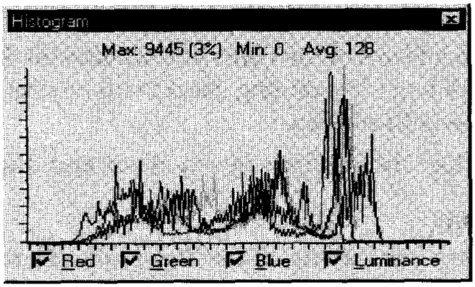
Brush Tip Tab

The Brush Tip tab contains the controls for configuring brushes and the access t the custom brushes. It becomes available whenever you select a brush. At other times, it is greyed-out.

Histogram Window

The histogram window contains a graph of the distribution of RGB color and light in an image.

Histogram Window



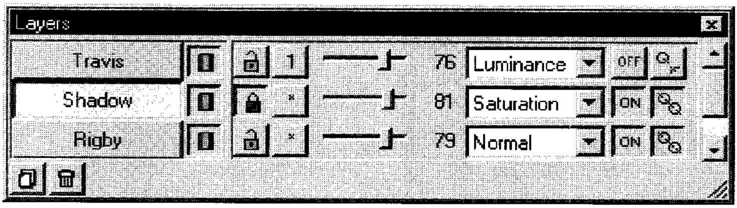
Max: 9445 (3%) Min: 0 Avg: 128

☑ Red ☑ Green ☑ Blue ☑ Luminance

Layer Palette

The Layer palette contains the controls used when working with Layers.

Layer Palette



Image

When you open or create an image file, Paint Shop Pro displays the image window in the workspace.

Browser

Although you will not see the Browser when you first open Paint Shop Pro, it is an integral feature of the program. The Browser opens in its own window, and it can remain open in the workspace while you edit images. When the Browser is open, the Menu bar displays the ImageFile menu, and Browser commands appear in the appropriate menus.

sing the Bars, Palettes, and Histogram Window

Paint Shop Pro makes it easy for you to use its bars, palettes, and histogram window.

Viewing and Hiding

From the View Menu

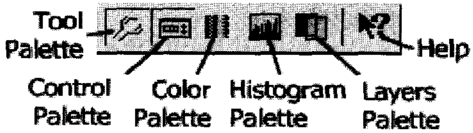
To display or hide a bar, palette, or window, do the following:

1. Choose Toolbars from the View menu. The Toolbars selection box opens.
2. Select the check boxes of the items you want Paint Shop Pro to display. The items with boxes containing checks will be displayed. The items with empty boxes will be hidden.
3. Click OK to close the Toolbars selection box and display the selected items.

From the Toolbar

To display or hide a bar, palette, or the histogram window, click its button on th toolbar.

Bar, Palette, and Histogram Buttons



From the Keyboard

To hide the visible floating palettes at any time, press <Tab>. Press <Tab> again to display them.

Docking and Undocking

The toolbar and the Color and Tool palettes can also be docked at the edges of the window. A docked bar or palette becomes part of the border around the image. An undocked bar or palette "floats." You can move it anywhere on the screen. When you open Paint Shop Pro for the first time, the bars and palettes ar docked at their default positions.

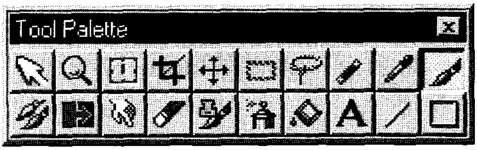
To dock a palette or the toolbar, do one of the following:

- Drag the palette or toolbar to any edge of the workspace. If it is over a valid docking location, the thick outline border will change to a thin outline border.
- Double-click the title bar of the floating palette or toolbar. If it is dockable, it will either dock at the last place it was docked or elect a default location.

To undock a palette or the toolbar, do one of the following:

- Drag it away from the edge by any area not occupied by a button.
- Double-click any area not occupied by a button.

Tool Palette Undocked (Floating)



To prevent a toolbar from docking when it is positioned near the edge of a window, hold down <Ctrl> while you move it.

Moving Bars, Palettes, and Windows

You can position the bars, palettes, and histogram window anywhere on the screen. To move one, drag its title bar.

You can move an image window within the workspace by dragging its title bar.

he Workspace

As the name implies, the workspace is the area of the main window where you create and edit image windows. When you open a file, an image window opens in the workspace.

To change the size of the main window, drag one of the borders inward or outward.

Minimizing the Workspace

If you alternate between Paint Shop Pro and another program, such as Animatio Shop, you can minimize Paint Shop Pro so that Animation Shop covers the entire screen. To minimize Paint Shop Pro, click the Minimize button on the title bar. A Paint Shop Pro button appears on the taskbar. To open the Paint Shop Pro main window, click this button.

Maximizing the Workspace

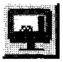
If you want to enlarge the workspace, click the Maximize button. The window expands to fit the screen area. To return it to its previous size, click the same button again.

Full Screen Edit

Full Screen Edit enlarges the window even more so that the workspace fills the screen. To alternate between the normal workspace and Full Screen Edit, do one of the following:

- Choose Full Screen Edit from the View menu.
- Click the Edit Full Screen button on the toolbar.
- Press <Shift> + <A>.

Full Screen Edit Button



Although the Title bar, Menu bar, and status bar are outside the visible screen area, you can access the menus by clicking the upper edge of the screen. You ca also use the last two methods to return to the normal workspace.

GETTING HELP

Help Button

Help Tool

To get help with a specific Paint Shop Pro feature, click the Help button on the toolbar, and then click the item.

ToolTip and Status Bar

To see the name of a button on the toolbar or a feature in a palette, place the cursor over it. A short description of it also appears in the status bar.

Help Buttons in Dialog Boxes

If you have questions about a dialog box, click its Help button.

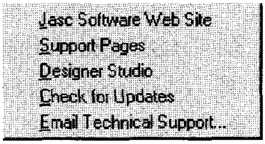
<F1> Button

You can also get help with a specific feature by placing the cursor over the feature and pressing <F1>. For example, to get help with a toolbar button, place the cursor over the button, then press <F1>.

Online Help

Choose Help Topics from the Help menu to access the contents, index, and keyword search of the online Help.

Jasc Online Options



Jasc Software Web Site

If you have Internet access, you can reach the Jasc Software Web site by choosing Jasc Online from the Help menu. Here you will find tips and tricks, program updates, and other interesting information.

OPENING ANIMATION SHOP

If you have installed Animation Shop, you can start it by choosing the Start Animation Shop command from the File menu. To make this command appear on the menu, you must first run Animation Shop independently.

To do this:

1. Click the Start button at the bottom of the monitor screen.
2. From the Programs menu, choose Paint Shop Pro 5.
3. Click Animation Shop.

ITING PSP 5

Paint Shop Pro closes in the same way as most Windows programs.

To exit Paint Shop Pro, do one of the following:

1 Choose Exit from the File menu.

2 Click the main window's Close button.

3 Press <Alt> + <F4>.

INSTALLING PSP 5

To remove Paint Shop Pro from your computer:

1 Click the Start menu button to open the Start menu.

2 Point to Settings, and then click Control Panel. The Control Panel opens.

3 Double-click the Add/Remove Programs icon. The Add/Remove Programs Properties dialog box opens.

4 If necessary, click the Install/Uninstall tab to bring it to the front.

5 Scroll through the list box to find Paint Shop Pro 5.

6 Highlight Paint Shop Pro 5.

7 Click the Add/Remove button. The Uninstall setup program starts.

8 Follow the on-screen prompts.

CHAPTER

Working with Image File

CREATING A PAINT SHOP PRO IMAGE

Computer graphics can be divided into two basic types: raster, also referred to a bitmap, and vector. Paint Shop Pro creates and edits bitmap images.

A bitmap image is composed of individual elements, called pixels, arranged in a imaginary grid. If you increase the magnification level of a bitmap image, you can see how the pixels become square areas of color. Each pixel has a bit depth (also called color depth) that determines how many colors it can display. A 1-bit image can display 2 colors; a 24-bit image can display 16.7 million. Because the image contains the color information for each pixel, color depth is expressed as image bit depth rather than pixel bit depth.

Bitmap and vector images differ in the way they define shapes. In bitmap image a shape is defined by the pixels; for example, a line is represented by every poin along it. Vector format images are not made of pixels. Instead, they contain commands to draw particular shapes, and they include information about wher to draw the shape and what its characteristics are. In a vector image, a line is usually represented by a starting point, an ending point, and information about thickness, pattern and color. Paint Shop Pro can open many images created in a vector format by first converting them to bitmap images.

In bitmap images, the size of the pixels determines the resolution of the image. Resolution is the number of pixels per inch or centimeter. A bitmap image is created at a specific resolution. You select the resolution based on how you will use the image. Set the resolution of an image for a web page at 72 ppi (pixels pe inch). If you will be printing to a high-quality printer, set the image resolution t between one-half and one-quarter of the actual printer resolution. Keep in mind that too low a resolution will cause pixelation, or large pixels that produce coars output, while too high a resolution add to image's memory requirements witho producing an increase in its quality.

sing the New Image Dialog Box

When creating a Paint Shop Pro image, you select its dimensions, resolution, and other characteristics in the New Image dialog box.

Image Dimension and Characteristics

Image Size

Determines the image size in pixels, inches, or centimeters.

Resolution

Determines the number of pixels per inch or pixels per centimeter.

Background Color

Determines the color of the "canvas" on which you create an image.

Image Type

Controls the bits per pixel, which determines the maximum number of colors an image can display. For more information on color and bit depth, see Chapter 6, "Working with Color."

Creating an Image File

To create a new Paint Shop Pro image file:

New Image Button

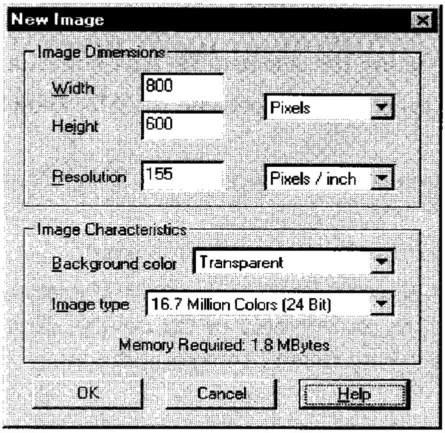
1 Choose New from the File menu, or click the New button on the toolbar. The New Image dialog box opens.

2 Type a width and height for the image. You can configure the size in inches, centimeters, or pixels. As you change the units of measurement, the width and height automatically update.

3 Select a resolution for the image. The Resolution box automatically displays the resolution you have previously selected in the Rulers and Units tab of the Paint Shop Pro Preferences dialog box. To change the resolution for the image, type another value. You can configure the resolution in pixels/inch or pixels/centimeters. For information on the Rulers and Units tab, see Chapter 12, "Configuring Paint Shop Pro."

4 Select a background color. The background color can be the current foreground or background color (displayed on the Color palette), white, black, red, green, blue, or transparent. (Transparent is available only for grey scale and 24-bit images.)

New Image Dialog Box



Width 800
Height 600
Pixels
Resolution 155
Pixels / inch
Background color Transparent
Image type 16.7 Million Colors (24 Bit)
Memory Required: 1.8 MBytes

5 Select the bits per pixel from the Image type box. A 24-bit image can displa over 16 million colors, while a 1-bit image can display only 2 colors. In Pain Shop Pro, many of the editing commands are available only for grey scale o 24-bit images.

6 Look at the minimum memory requirement of the image, which appears below the Image type box. For optimum performance, your system should have at least 2-3 times this amount in RAM. Decreasing either the bits per pixel or the dimensions of the image will reduce the minimum memory requirement.

7 Click OK to close dialog box. The new image file appears in the Paint Shop Pro workspace.

Using a TWAIN-Compliant Device

Paint Shop Pro supports TWAIN-compliant image devices, such as scanners an digital cameras. When Paint Shop Pro starts, it scans your computer to see if th software for a TWAIN device is installed. If it is installed, the TWAIN menu commands in the File menu are made available. If it is not installed, the menu commands and toolbar button are greyed out.

Selecting a TWAIN Compliant Device

To select a TWAIN-compliant device for acquiring images:

1 In the File menu, choose Import, then TWAIN, and then Select Source. The Select Source dialog box opens.

2 Highlight the device.

3 Click Select to close the dialog box.

Acquiring an Image

To acquire an image using the selected TWAIN-compliant device:

Acquire Button

1 Do either of the following to open the TWAIN Data Source dialog box:
  - In the File menu, choose Import, then TWAIN, and then Acquire.
  - Click the Acquire button on the toolbar.

2 Use the interface to set the image acquisition options. For help using the interface, consult its on-line help or the device software's manual. When the device and its software finish processing the image, the image is sent to Paint Shop Pro.

3 The TWAIN Data Source dialog box remains open even after the image is loaded into Paint Shop Pro. You can continue to scan images and close it after you have finished.

ading a Kodak Digital Camera Image

If you have a Kodak DC40, DC50, or DC120 camera, you can use Paint Shop Pro to access and manage the files while they are still in the camera.

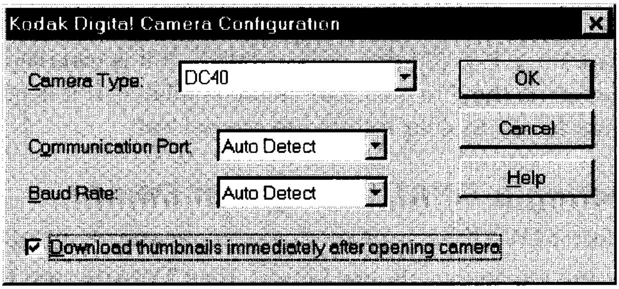
Configuring the Settings

NOTE: Connect the camera to the computer before configuring your settings.

To configure the settings:

1 In the File menu, choose Import, then Kodak Digital Camera, and then Configure. The Kodak Digital Camera Configuration dialog box opens.

Kodak Digital Camera Configuration Dialog Box



Kodak Digital Camera Configuration

Camera Type: DC40

Communication Port: Auto Detect

Baud Rate: Auto Detect

☑ Download thumbnails immediately after opening camera

2. In the Camera Type list box, select the camera.
3. If you know which port on your computer is connected to your camera, sele it from the Communication Port list. If you do not know the port, leave the selection at Auto Detect.
4. If you know the appropriate baud rate setting, select it from the Baud Rate list. If you do not know the setting, leave the selection at auto-detect. Paint Shop Pro will check the computer and camera and set the fastest possible connection.
5. To download thumbnails of the images as soon as the camera connects to th computer, select the "Download thumbnails immediately after opening" check box. This allows you to preview the files while they are in the camera

Acquiring an Image

The Kodak Digital Camera dialog box, which opens when you choose the Acquire command from the Kodak Digital Camera submenu, lets you work wit the image files individually or together.

In the File menu, choose Import, then Kodak Digital Camera, and then Acquire. When the Kodak Digital Camera dialog box opens, the camera style and resolution (in pixels) appear at the top.

The dialog box contains three panels:

- Current Image Source
- Multiple Exposure Operations
- Single Exposure Operations

Current Image Source Panel

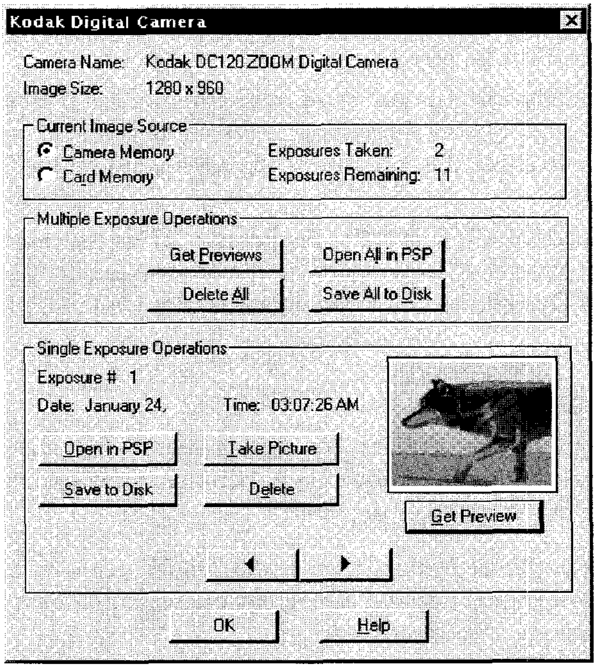
This panel displays the number of exposures taken and the number remaining. Select the Camera Memory or Card Memory (if your camera has one) option to alternate between these two images sources.

Multiple Exposure Operations Panel

Use this panel to apply the commands to all the images.

- If you chose not to download thumbnails when you configured the settings click the Get Previews button to download them now. When no previews have been downloaded, an "X" appears in the preview window.
- To delete all the images in the current image source, click Delete All.
- Click Open All in PSP to open all the images in the Paint Shop Pro workspace.
- Click Save All to Disk to save all the images on your hard disk without opening them.

Kodak Digital Camera Dialog Box


Kodak Digital Camera
Current Image Source
Multiple Exposure Operations
Get Previews
Open All in PSP
Delete All
Save All to Disk
Single Exposure Operations
Open in PSP
Take Picture
Save to Disk
Delete
Get Preview
OK
Help

Camera Name: Kodak DC120 ZOOM Digital Camera
Image Size: 1280 x 960

● Camera Memory
○ Card Memory
Exposures Taken: 2
Exposures Remaining: 11

Exposure # 1
Date: January 24, Time: 03:07:26 AM

Single Exposure Operations Panel

Use this panel to view and work with individual images.

- As you click the left and right arrows to scroll through the images, each picture's time, date, and preview appear. (The preview appears only if you downloaded the thumbnails.)
- If you chose not to download the thumbnails and want to see a preview of the selected image, click Get Preview.
- Click Open in PSP to open the image in the Paint Shop Pro workspace.
- Click Save to Disk to save the image on your hard disk without opening it.
- Click Delete to delete the image from the camera.
- If you want to take a picture and see it immediately, position the camera, click Take Picture, and then click Get Preview.

aking a Screen Capture

Paint Shop Pro can take a picture of the screen and place it in the workspace. These pictures, called screen captures, can be of an area you draw, of the entire screen, of an active window, of the contents of an active window, or of the controls of a program, such as a toolbar. All the images in this book were produced from screen captures.

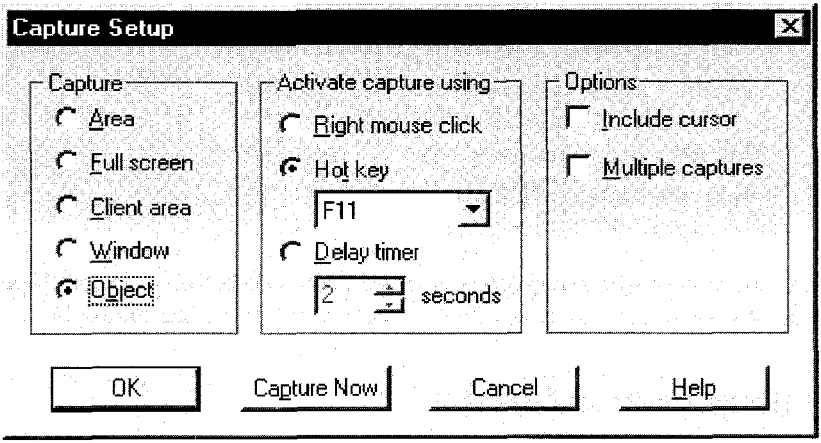
Before using the Screen Capture function, you select the type and method of capture. You can then make a capture immediately or use it as needed.

Configuring the Screen Capture Function

To select the Screen Capture function's options:

1. Choose Setup from the Capture menu. The Capture Setup dialog box opens.
2. In the Capture panel, select one of the capture methods by clicking its button. You have the following options:
    - Area allows you to determine the size and contents while making the capture.
    - Full screen captures the entire monitor screen.
    - Window captures the current active window.
    - Client area captures the contents of the active window.
    - Object captures a feature or group of features.

Capture Setup Dialog Box



Capture Setup

Capture
○ Area
○ Full screen
○ Client area
○ Window
● Object

Activate capture using
○ Right mouse click
● Hot key
F11
○ Delay timer
2 seconds

Options
☐ Include cursor
☐ Multiple captures

3. In the next panel, select one of the methods for activating the screen capture function. If you will not be making a screen capture immediately, select the right mouse button or a Hot key to use in with the Start command. If you are making a capture now, select a delay period. (You have up to a minute.)

4. Select the "Include cursor" check box in the Options panel if you want the cursor to appear in screen captures when it is within the capture area. Leav it blank to hide the cursor. (This option is not available for area captures.)
5. If you will be making more than one screen capture at a time, select the "Multiple captures" check box. When you activate the screen capture function, Paint Shop Pro minimizes. Selecting this option prevents Paint Sh Pro from being restored until you click its button on the taskbar. If you leav the check box blank, the program automatically restores after the first scree capture.
6. You can now activate the screen capture function from this dialog box or close the dialog box without activating the function.
   - To apply the options you have selected without activating the screen capture function, choose OK.
   - To make a screen capture immediately, click Capture Now. Paint Shop Pro will start the capture function after the period of delay you selected in the Delay timer box.

Activating the Screen Capture Function

After you have selected the options, start the Screen Capture function at any time. The initial steps are the same for all the capture methods.

To activate the Screen Capture function:

1. If Paint Shop Pro is not running, start it now.
2. From the Capture menu, choose Start, or click the Start Capture button on the toolbar. Paint Shop Pro minimizes.
3. Display the image, window, or feature to be captured on the screen.

Start Capture Button

You are now ready to capture the image. The procedure you use depends on th type of screen capture you selected in the Capture Setup dialog box.

Making an Area Capture

To make an Area capture:

1. If you have chosen the Area method, right-click or press the Hot key you chose during the setup.
2. Click the screen where you want to start the capture. (Be sure to release the mouse; you do not drag it to define the area.)
3. Move the cursor to create a rectangular outline of the selected area. The siz of the screen capture, in pixels, appears inside the area.

4 When the area is the size you want, click the mouse. Paint Shop Pro makes the screen capture.

5 If you did not select the Multiple Captures option during the setup, Paint Shop Pro automatically opens with the screen capture in the workspace.

6 If you selected the Multiple Captures option, continue making captures by using the right mouse button or Hot key to select the starting point and using the left mouse button to create the capture area.

7 Activate Paint Shop Pro after you have finished. The program opens with the screen captures in the workspace.

Making an Object Capture

To make an Object capture:

1 If you have chosen the Object method, right-click or press the Hot key you chose during the setup. The object beneath the cursor becomes surrounded by a black border.

2 Move the cursor over the object you want to capture. The object the cursor selects is identified by a black border.

3 When the cursor is over the object you want, click the mouse. Paint Shop Pro makes the screen capture.

4 If you did not select the Multiple Captures option during the setup, Paint Shop Pro automatically opens with the screen capture in the workspace.

5 If you selected the Multiple Captures option, continue making captures by using the right mouse button or Hot key to select objects and left-clicking to capture them.

6 Activate Paint Shop Pro after you have finished. The program opens with the screen captures in the workspace.

Making a Full Screen, Client Area, or Window Capture

To make a Full Screen, Client Area, or Window Capture:

1 If you have chosen the Full Screen, Client Area, or Window method, right-click or press the Hot key you chose during the setup. Paint Shop Pro makes the screen capture.

2 If you did not select the Multiple Screen Captures option during the setup, Paint Shop Pro automatically opens with the screen capture in the workspace.

3 If you selected the Multiple Screen Captures option, continue making captures using the right mouse button or Hot key.

4 Activate Paint Shop Pro after you have finished. The program opens with the screen captures in the workspace.

Duplicating an Image

To copy any active open image file in Paint Shop Pro, choose Duplicate from th Window menu. A new image file appears in the workspace.

Pasting from the Clipboard

Paste as New Image Button

You can create a new image from almost any data you place on the clipboard, both from Paint Shop Pro and other applications. Choose Cut, Copy, or Copy Merged from the Edit menu to place selections, layers, and images on the clipboard. Choose Paste as New Image from the same menu to create a new image from the clipboard contents.

If the data is in a metafile or vector format (such as text), Paint Shop Pro opens the Meta Picture Import dialog box. For more information on these file formats see Chapter 12, "Configuring Paint Shop Pro."

OPENING AN IMAGE FILE

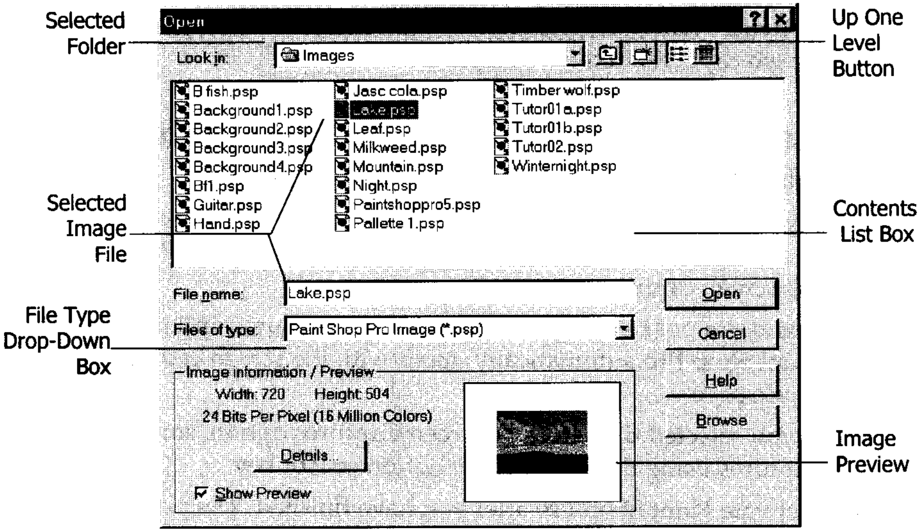
Using the Open Dialog Box

Open Button

To use the Open dialog box to open an image file:

1 Choose Open from the File menu or click the Open button on the toolbar. The Open dialog box opens.

Open Dialog Box


Selected Folder
Selected Image File
File Type Drop-Down Box
Up One Level Button
Contents List Box
Image Preview
Open
Look in:
Images
B fish.psp
Background1.psp
Background2.psp
Background3.psp
Background4.psp
Bf1.psp
Guitar.psp
Hand.psp
Jasc cola.psp
Lake.psp
Leaf.psp
Milkweed.psp
Mountain.psp
Night.psp
Paintshoppro5.psp
Pallette 1.psp
Timber wolf.psp
Tutor01a.psp
Tutor01b.psp
Tutor02.psp
Winternight.psp
Open
Cancel
Help
Browse
Details...

File name: Lake.psp

Files of type: Paint Shop Pro Image (*.psp)

Image information / Preview

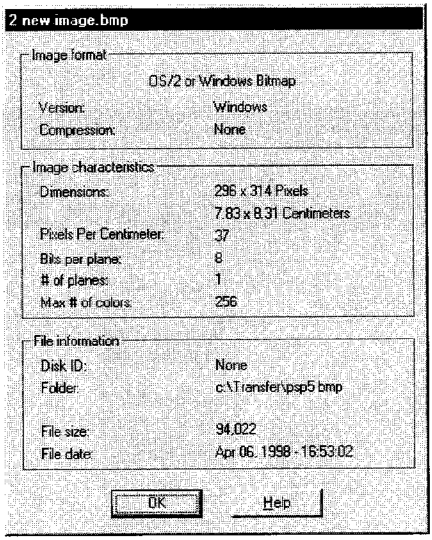
Width: 720 Height: 504

24 Bits Per Pixel (16 Million Colors)

☑ Show Preview

2. Navigate to the folder containing the image file you want to open. As you move through folders on the hard drive or network, you can choose to have Paint Shop Pro search for files in all 42 formats it reads or limit its search to single file format. Select the search method by scrolling through the File typ drop-down box and highlighting the format. By default, Paint Shop Pro searches for all file formats.
3. Click the file to select it. When you click an image file, the Image Information/Preview panel displays its dimensions in pixels and bits per pixel. If the "Show Preview" check box is selected, the Preview box display a small version of the image.
4. To get more information on the image file, click Details to open the Details list box. This box contains information on the file format, location, compression method, memory requirements, and creation date.

Image Details List Box



2 new image.bmp

Image format
OS/2 or Windows Bitmap
Version: Windows
Compression: None

Image characteristics
Dimensions: 296 x 314 Pixels
7.83 x 8.31 Centimeters
Pixels Per Centimeter: 37
Bits per plane: 8
# of planes: 1
Max # of colors: 256

File information
Disk ID: None
Folder: c:\Transfer\psp5 bmp
File size: 94,022
File date: Apr 06, 1998 - 16:53:02

5. Click OK to close Image Details and return to the Open dialog box.
6. To open the selected file, click Open. The dialog box closes and the image opens in the Paint Shop Pro workspace. If you select a meta or vector file, a Photo-CD file, or a RAW file, Paint Shop Pro may open a format-specific dialog box requesting additional information. For help with file formats, se Chapter 12, "Configuring Paint Shop Pro." If you try to open a file Paint Shop Pro doesn't support, a message appears stating that the file format is not supported.

7 To close the dialog box and open the Browser instead of opening the image file, click Browse. The Browser will open the same folder and show thumbnails of the images within it.

sing the Paint Shop Pro Browser

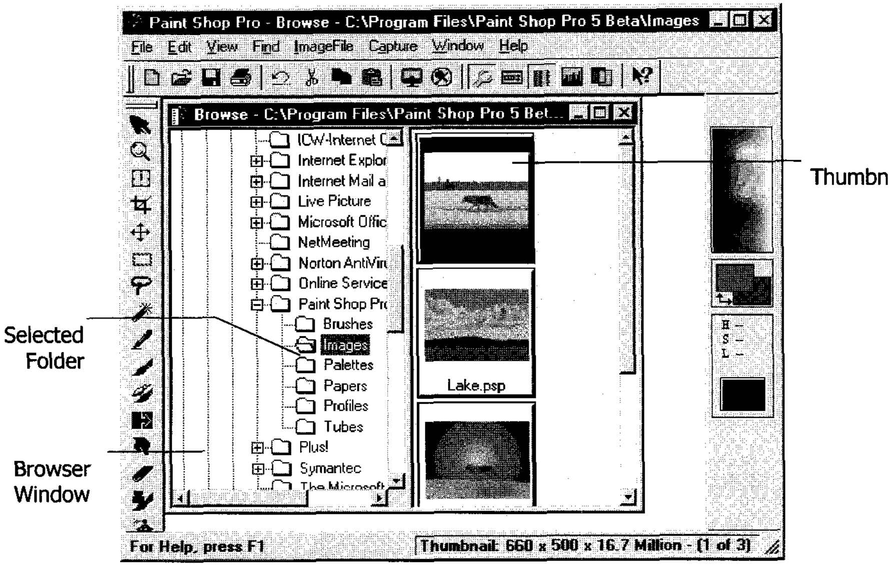
The Paint Shop Pro Browser is a tree-based Browser that lets you quickly locate files and preview the images within. See Chapter 4, "Using the Browser," for a complete description.

To use the Browser to open an image file:

Browse Button

1 Choose Browse from the File menu or click the Browse button on the toolbar. The Browser opens.
2 On the left side of the window, scroll to locate the folder containing the image file you want to open.
3 Click the folder. Thumbnails (small previews) of the images in the folder appear on the right side of the window.

Paint Shop Pro Browser


Paint Shop Pro - Browse - C:\Program Files\Paint Shop Pro 5 Beta\Images
File Edit View Find ImageFile Capture Window Help
Browse - C:\Program Files\Paint Shop Pro 5 Bet...
ICW-Internet C
Internet Explor
Internet Mail a
Live Picture
Microsoft Offic
NetMeeting
Norton AntiVir
Online Service
Paint Shop Pr
Brushes
Images
Palettes
Papers
Profiles
Tubes
Plus!
Symantec
The Microsoft
Lake.psp
H -
S -
L -
For Help, press F1
Thumbnail: 660 x 500 x 16.7 Million - (1 of 3)
Selected Folder
Browser Window
Thumbn

4 To view more information about an image file, do one of the following to open the Details list box:

- Right-click the thumbnail, and choose Information from the pop-up menu.
- Click the thumbnail, and choose Info from the ImageFile menu.

5 To open the image file, do one of the following:

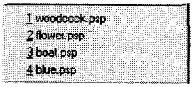
- Drag its thumbnail into the Paint Shop Pro workspace. You can open several images at one time by dragging then into the workspace. The number of images you can open is limited only by the memory in the computer.
- Right-click its thumbnail and choose Open from the pop-up menu.
- Double-click its thumbnail. To select more than one image, press <Ctrl> + Click each image, and then double-click the final image.

If you choose a meta or vector file, a Photo-CD file, or a RAW file, Paint Shop Pr may open a format-specific dialog box requesting additional information. For help with file formats, see Chapter 12, "Configuring Paint Shop Pro."

Using the Recent File List

The image files that you have recently opened appear on the File menu above the Exit command. Up to 10 file names can appear. To open one of these files, choose its name from the File menu.

Recent File List



If you choose a meta or vector file, a Photo-CD file, or a RAW file, Paint Shop Pr may open a format-specific dialog box requesting additional information. For help with file formats, see Chapter 12 "Configuring Paint Shop Pro."

Using Drag and Drop

You can open image files by dragging them from My Computer, the Windows Explorer, or any program that supports Drag and Drop, and releasing them on the Paint Shop Pro workspace, the Paint Shop Pro executable file (labeled PSP.EXE), or a shortcut to Paint Shop Pro's executable file.

To use Drag and Drop:

1 Position My Computer or Windows Explorer and Paint Shop Pro where bot are visible.

2 In My Computer or Windows Explorer, find the file that you want to open.

3 Drag the file into the Paint Shop Pro main window or over one of the Paint Shop Pro icons.

4 Release the mouse button. The image file opens.

If you choose a meta or vector file, a Photo-CD file, or a RAW file, Paint Shop Pro may open a format-specific dialog box requesting additional information. For help with file formats, see Chapter 12, "Configuring Paint Shop Pro."

AVING AN IMAGE FILE

aving a New Image File

Paint Shop Pro has a native ".psp" format that supports layers, alpha channels, and other features you can use to create images. You will find it convenient to save image files in this format and then, when necessary, convert them after you have finished.

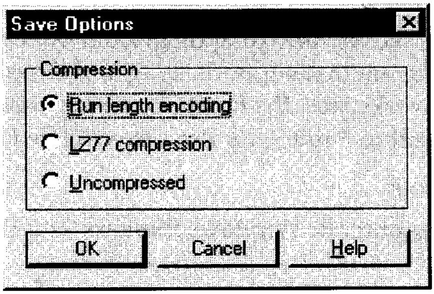
An image file saved in the ".psp" format can be saved without compression or compressed to save space. Saving a file without compressing it is the quickest method, but requires the most hard disk space.

Both compression methods Paint Shop Pro uses are lossless; that is, they reduce the file size without losing any image information.

There are two compression methods:

- Run length encoding (RLE) is fast and will save about 25% (compress an image to about 75% of its original size) for most multi-layered images. It works well with flat color images.
- LZ77 compression is slower than RLE, but can compress an image more than RLE. It works well with photo-realistic images.

Save Options Dialog Box



Save Options

Compression

● Run length encoding

○ LZ77 compression

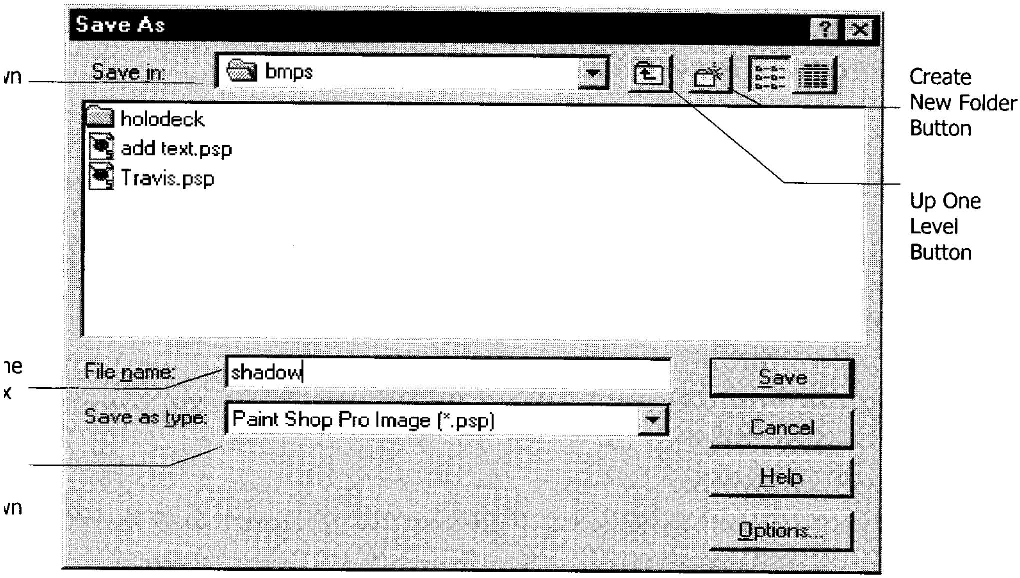
○ Uncompressed

To save a new Paint Shop Pro image:

1. Choose Save from the File menu, or click the Save button on the toolbar. The Save As dialog box opens.
2. Navigate to and open the folder in which you want to save the image file.
3. Type a name for the file in the File Name box.

Save Button

Save Dialog Box



Save As

Save in: bmps

holodeck
add text.psp
Travis.psp

File name: shadow

Save as type: Paint Shop Pro Image (*.psp)

4. To save the image file in the ".psp" format, leave the default settings in the Save as Type box.
5. To save the image file in a format other than ".Paint Shop Pro," scroll through the Save as Type box and select the new format.
6. If the new format has Save Options, the Options button is accessible. If there are no options, it is greyed out. To select the options, click the Options butto to open the Save Options dialog box.
7. Select the options, and click OK to close the selection box.
8. Click Save to save the image file and close the dialog box.

aving an Image File in its Original Format

When you save an image and then edit it, the Title bar displays a Modified tag (an asterisk) after the file's name to indicate the file has been modified. This tag disappears each time you save the file; it reappears when you again edit the image.

The first time you save an image, select a format for it. After you have selected a format, Paint Shop Pro Shop Pro continues to save the image in this format until you select another.

To save an image in its original format, do one of the following:

- Click the Save button on the toolbar.
- Choose Save from the File menu.

aving a Copy of an Image

Save Copy As Button

When you save an image using the Save Copy As command, you are copying the original file, not saving it. Use this command to save a version of a file without affecting it. Paint Shop Pro saves the copy to the same directory and in the same format that was last used with the Save Copy As command (not the Save As command).

Choose the Save Copy As command from the File menu or click the Save Copy As button on the toolbar.

Using the Save Copy As:

- Does not affect the modifier tag. It does not disappear from the Title bar.
- Does not change the file name. The copy is titled "Copy of *Image*."

aving an Image in a New File Format

Using the Save As Command

Save As Button

If you want to save a file in another format, use the Save As command.

To save an open image file in a new file format:

1. Choose Save As from the File menu or click the Save As button. The Save As dialog box opens.
2. Navigate to and open the folder in which you want to save the image file.
3. To rename the image file, type a new name in the File name box.
4. Open the Save as type box, and scroll to select a new format.

5 If the new format has Save options, the Options button is accessible. If there are no options, it is greyed out. To select the options, click the Options butto to open the Save Options dialog box.

6 Select the options, and click OK to close the selection box.

7 Click Save to save the image file and close the dialog box.

## reviewing a File

Print Preview Button

Use the Print Preview to display the image as it will look when printed. To activate this view, choose Print Preview from the File menu or click the Print Preview button on the toolbar.

The window contains five buttons:

Print Button

Click to close the Print Preview window and open the Print dialog box.

Setup Button

Click to close the Print Preview window and open the Page Setup dialog box. Fc help configuring the Page Setup dialog box, see Chapter 12, "Configuring Paint Shop Pro."

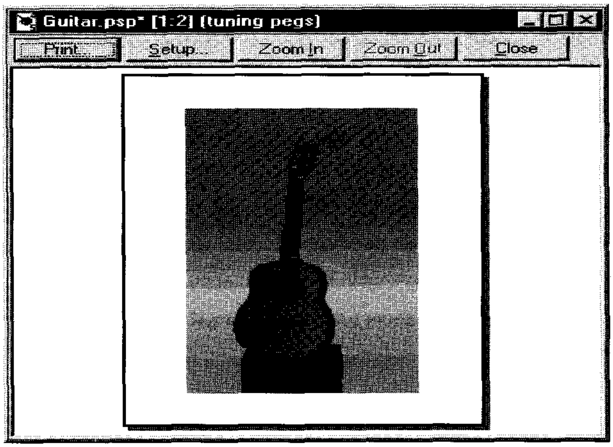
Zoom In and Zoom Out Buttons

Click to change the magnification level. You can also zoom in and out by clickin the image.

Close Button

Click to close the Print Preview window and return to the image window.

Image Print Preview Window



RINTING AN IMAGE

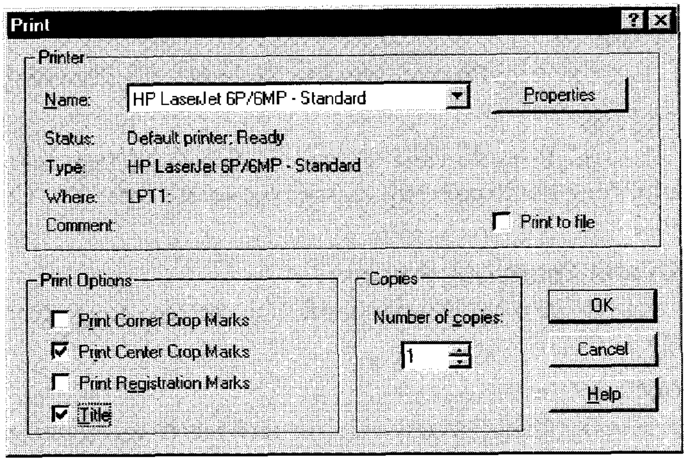
rinting a File

To print an image file:

Print But

1. Open the Print dialog box by doing one of the following:
   - Choosing Print from the File menu.
   - Clicking the Print button on the toolbar.
   - Clicking the Print button in the Print Preview window.
2. Select a printer in the Printer name box.

Print Dialog Box



Print

Printer

Name: HP LaserJet 6P/6MP - Standard

Status: Default printer; Ready

Type: HP LaserJet 6P/6MP - Standard

Where: LPT1:

Comment:

☐ Print to file

Print Options

☐ Print Corner Crop Marks

☑ Print Center Crop Marks

☐ Print Registration Marks

☑ Title

Copies

Number of copies: 1

3. If you want to print registration or crop marks, select their check boxes in the Print Options panel. If you typed a title in the Creator Information tab of the Image Information dialog box, you can select to print it. If there is no Creator Information, the file name of the image will be used. See "Creator Information Tab" in the next section for information on image titles.
4. To print the image to a file instead on the printer, select the "Print to file" check box. Clicking the Print button will open the Print to File dialog box, where you can choose a location and name for the new file.
5. Set the number of copies you want to print.
6. Click OK. Paint Shop Pro sends the file to the printer.

JSING THE BATCH CONVERSION UTILITY

Use Paint Shop Pro's Batch Conversion utility to convert multiple image files to single format.

Batch Conversion Button

To make batch conversions:

1 Choose Batch Conversion from the File menu or click the Batch Conversion button on the toolbar. The Batch Conversion dialog box opens.

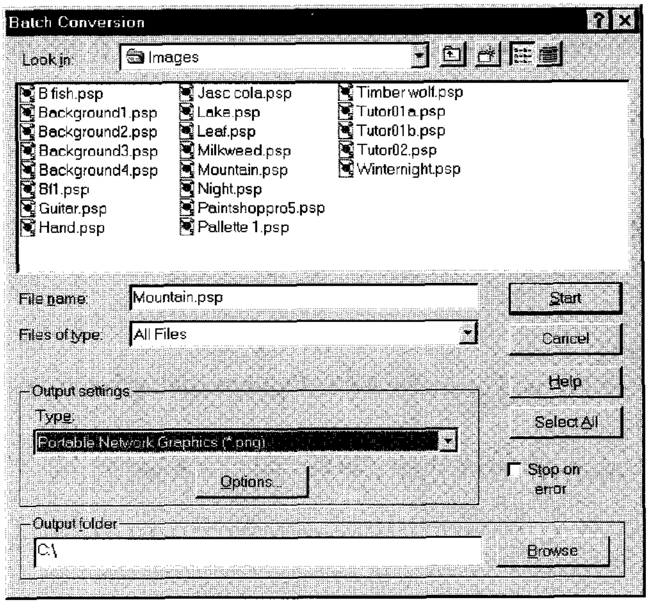
2 Select a new file format for the images from the Output Settings drop-down list. If a format has save options, the Options button will be accessible. Click Options to open the Save Option dialog box, and select the options. For a list of the formats containing options, see Appendix 1, "File Formats."

3 To select the output (destination) folder for the new files, click the Browse button. When the Browse for Folder dialog box opens, navigate to and click the folder in which you want to save the converted files. For help using the Browse for Folder dialog box, see Chapter 4, "Using the Browser."

4 Click OK to close this dialog box and return to the Batch Conversion dialog box.

5 Select the folder that contains the source files you want to convert. You sele a folder using the following standard Windows file dialog box.

Batch Conversion Dialog Box



Look in: Images

B fish.psp
Background1.psp
Background2.psp
Background3.psp
Background4.psp
Bf1.psp
Guitar.psp
Hand.psp
Jasc cola.psp
Lake.psp
Leaf.psp
Milkweed.psp
Mountain.psp
Night.psp
Paintshoppro5.psp
Pallette 1.psp
Timber wolf.psp
Tutor01a.psp
Tutor01b.psp
Tutor02.psp
Winternight.psp

File name: Mountain.psp

Files of type: All Files

Output settings

Type: Portable Network Graphics (*.png)

☐ Stop on error

Output folder

C:\

6. If you want the conversion to stop if an error occurs, select the "Stop on error" check box. Leave the check box blank to process all the images without stopping. The error messages will appear in the Batch Conversion Status dialog box.
7. Select the files to be converted using one of the following methods:
   - To convert all the files displayed, click the Select All button.
   - To select specific files, type file name wildcards in the File Name text box, select a file type from the Files of Type drop down box, or press <Shift> while selecting contiguous files and <Ctrl> while selecting non-contiguous files.
8. Start the conversion using one of the following methods:
   - To convert the specific files that you selected in the last step, click the Start button.
   - To convert the files in the Contents list box that match the file name wildcards or the selected file type, click the Select All button. Paint Shop Pro will look for filename wildcards first. If none were entered, it will select files by file type.

The Batch Conversion Status dialog box opens and the batch conversion starts. The dialog box displays messages about the batch conversion's progress. To stop the batch conversion, click the Abort button.

During the conversion, Paint Shop Pro might open other dialog boxes to request more information if you have selected any files in the following formats:

Meta and Vector Files

Paint Shop Pro might open the Meta Picture Import dialog box for each meta or vector file you selected.

Photo-CD Files

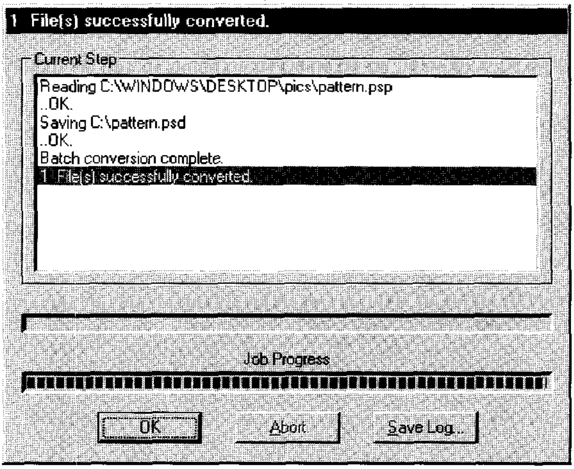
Paint Shop Pro might open the PCD Size dialog box for each Photo-CD file you selected.

RAW Files

Paint Shop Pro will open the RAW Options dialog box for each RAW file you selected.

For more information on these file formats, see Chapter 12, "Configuring Paint Shop Pro."

Batch Conversion Status Dialog Box



1 File(s) successfully converted.

Current Step

```
Reading C:\WINDOWS\DESKTOP\pics\pattern.psp
..OK.
Saving C:\pattern.psd
..OK.
Batch conversion complete.
1 File(s) successfully converted.
```

After the files have been converted:

1. Click the Save Log button to save the progress messages to a text file.
2. Click the OK button to exit the dialog box.

SENDING AN IMAGE USING EMAIL

If you have an email application on your computer, you can use the Send command in the File menu. When you choose Send, Paint Shop Pro pastes a cop of the active image in a new email message. This copy is always in the ".psp" format.

VIEWING IMAGE INFORMATION

To view information on the image file while the image is open and active, open the Current Image Information dialog box by choosing Image Information from the View menu or clicking the Image Information button on the toolbar.

Image Info Button

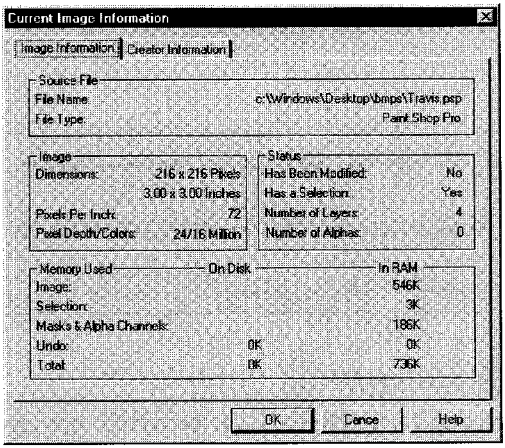
The Current Image Information dialog box contains two tabs:

- An Image Information tab listing relevant data about the file
- A Creator Information tab, where you can enter information about the file

nage Information Tab

This tab contains the file's name and type of format, its dimensions and bit depth, selection, layer, and channel information, and a breakdown of the memory used.

Image Information Tab


Current Image Information
Image Information
Creator Information
OK
Cancel
Help

Source File
File Name: c:\Windows\Desktop\bmps\Travis.psp
File Type: Paint Shop Pro

Image
Dimensions: 216 x 216 Pixels
3.00 x 3.00 Inches
Pixels Per Inch: 72
Pixel Depth/Colors: 24/16 Million

Status
Has Been Modified: No
Has a Selection: Yes
Number of Layers: 4
Number of Alphas: 0

Memory Used	On Disk	In RAM
Image:		546K
Selection:		3K
Masks & Alpha Channels:		186K
Undo:	0K	0K
Total:	0K	736K

reator Information Tab

Unlike most file formats, the ".psp" format lets you save information about the image. You can type a title, the creator's name, copyright information, and any comments in the Creator Information tab. Click OK to close the dialog box. This information is not saved until you save the image.

Creator Information Tab

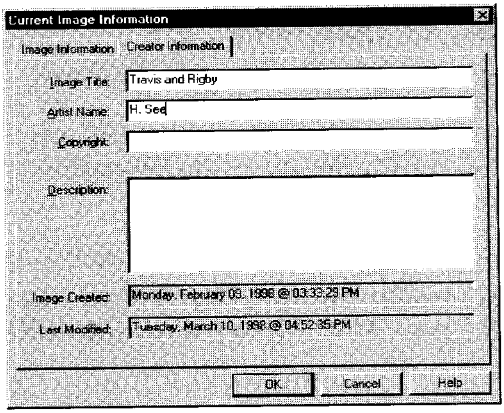

Current Image Information
Image Information
Creator Information
OK
Cancel
Help

Image Title: Travis and Rigby
Artist Name: H. See
Copyright:
Description:
Image Created: Monday, February 09, 1998 @ 03:33:29 PM
Last Modified: Tuesday, March 10, 1998 @ 04:52:35 PM

LOSING AN IMAGE

To close an image, choose Close from File menu or click the Windows Close button.

If you have made changes to the image since you last saved it, you will be prompted to save the changes.

LOSING ALL OPEN IMAGES

To close all the open image files in the Paint Shop Pro workspace, choose Close All from the Window menu.

You will be prompted to save any files with changes unless you have selected th "Do not ask to save changes on Windows Close All" check box in the Miscellaneous tab of the Paint Shop Pro Preferences dialog box.

ELETING AN IMAGE

From the Workspace

To delete an image file open in the workspace, choose Delete from the File menu

With the Browser

To delete a closed image file using the Paint Shop Pro Browser:

1. Open the Paint Shop Pro Browser.
2. Navigate to the folder containing the image.
3. Click the Image's thumbnail and do one of the following:
    - Choose Delete from the ImageFile menu.
    - Right-click the thumbnail and choose Delete from the pop-up menu.
4. You will be prompted to confirm the deletion.
5. Click Yes to delete the image file; click No to cancel the deletion.

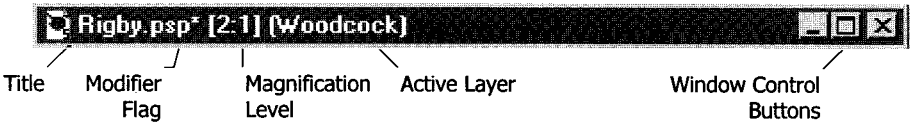
CHAPTER

Working with Image Windows

When you open an image file, Paint Shop Pro places it in an image window. You can drag a window around the workspace and minimize and open it as needed. You can have more than one window open while you work. The image window you are currently working on is called the active image window.

EATURES OF AN IMAGE WINDOW

Image Window Title Bar

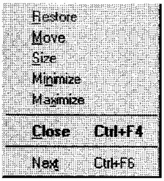

Rigby.psp* [2:1] (Woodcock)
Title
Modifier Flag
Magnification Level
Active Layer
Window Control Buttons

Title Bar

The Title bar contains the following items:

Control Icon

Control Menu


Restore
Move
Size
Minimize
Maximize
Close Ctrl+F4
Next Ctrl+F6

Control Icon

Click the control icon to access the Control menu and its commands. Use the Next command to activate the other open image windows.

Title

The name of the file appears on the title bar next to the control icon.

Modifier Flag

An "*" (asterisk) after the file name indicates that the image has been modified since it was last saved.

Magnification Level (Zoom Ratio)

The numbers in brackets indicate the image's current magnification level.

Current Active Layer

The name of the layer you are editing (the active layer) is displayed.

Window Controls

The standard Windows Minimize, Maximize (Restore), and Close buttons appea at the right side of the Title bar.

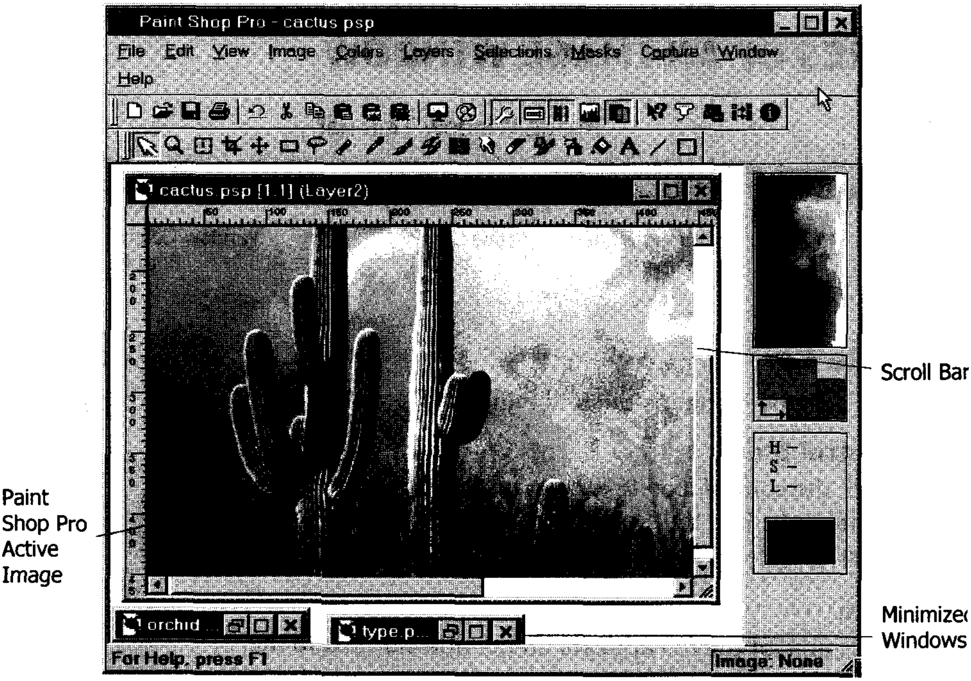
Image

The image identified on the Title bar appears in the window.

Scroll Bars

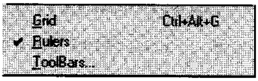
Scroll bars appear along the right and bottom edges if the image is too large to fi in the window.

Image Window in the Workspace


Paint Shop Pro - cactus psp
File Edit View Image Colors Layers Selections Masks Capture Window Help
cactus psp [1:1] (Layer2)
orchid ...
type p...
For Help, press F1
Image: None
Scroll Bar
Paint Shop Pro Active Image
Minimize
Windows

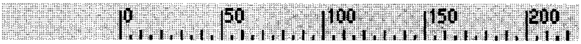
Optional Features

View Rulers and Grid Command



Paint Shop Pro includes Rulers and a Grid to help you align your artwork and arrange image elements symmetrically. The grid spacing can be set at any size, and both the grid and rulers can be configured to display inches, centimeters, and pixels.
Set the options in the Rulers and Units tab of the General Program Preferences dialog box. For help setting the rulers and units preferences, see Chapter 12, "Configuring Paint Shop Pro."

Ruler Set to Pixels



- To display the rulers or the grid, choose the Grid or Rulers command from the View menu. A check mark appears next to the command when its featur is displayed.
- To hide the rulers or grid, choose Grid or Rulers from the View menu again. The check mark disappears.

IEWING THE IMAGE

hanging the Zoom Level

The zoom level is the magnification level of the image. The standard magnification is the actual size of 1:1. At 3:1 the image is three times the standar size; at 1:5 it is one fifth the standard size. As you edit, vary the zoom level according to the work; for example, zoom in to see the individual pixels for detai work and back out to adjust the image's color balance. To check an image's current zoom level, look at the Zoom ratio on its title bar.

There are three commands that control the magnification level:

- Zoom In magnifies the image so that it appear larger than its actual size.
- Zoom Out reduces an image so that it appears smaller than its actual size.
- Normal View immediately returns the image to the standard magnification.

There are three ways to activate these commands:

- Using the Zoom tool and Normal Viewing buttons
- Using the View menu commands
- Using the Numeric keypad

Zoom Button on Tool Palette

Using the Zoom Tool

Click the Zoom tool button on the Tool palette to activate the Zoom tool. The cursor changes to a magnifying glass.

- To zoom in, left-click the image. The magnification increases by one level, and the image centers where the Zoom tool was clicked.
- To zoom out, right-click the image. The magnification decreases by one level.

Normal
Viewing Button
on Toolbar

Click the Normal Viewing button on the toolbar to return to the standard view.

Using View Menu Commands

Choose a magnification level from the Zoom In and Zoom Out submenus of the View menu.

To return to the standard view, choose Normal Viewing (1:1) from the View menu.

Using the Numeric Keypad

Press <+> on the numeric keypad to increase the magnification by one level.

Press <-> on the numeric keypad to decrease the magnification by one level.

iewing the Image Area

When you increase the magnification level of the image for detail work, you ma find that the entire image no longer fits in its window. If you are not working on the entire image, you may prefer to retain this larger magnification level but not increase the window's size. You can still move the image in the window to see different areas.

There are three ways to bring the hidden portions of an image into view:

- Using the Arrow tool
- Using the Scroll bars
- Using the Cursor Keys

Viewing by Using the Arrow Tool

To use the Arrow tool:

Arrow Tool Hand

1. Click the Arrow tool on the Tool palette.
2. Move the cursor over the image.
3. Press and hold down the left mouse button.
   The cursor changes into a hand.

4 Drag the image until the portion you want to see is visible.

5 Release the mouse button.

Viewing by Scrolling

Scroll bars appear along the right and bottom edges of the window whenever the image is too large to fit entirely within the window (such as when the image is magnified). To bring a different area of the image into view, click and hold down the arrow buttons on either end of the scroll bar or drag the slider bar.

Scroll Bar

Viewing by Using the Cursor Keys

To use the Cursor keys:

Press <Page Up>, <Page Down>, and <↑>, <↓> to scroll vertically.
Press <Home>, <End>, <←>, and <→> to scroll horizontally.

itting a Window to an Image

When Zooming

The size of the window can either increase and decrease with the image as you change zoom levels, or it can remain a constant size.

To set the window size option, do the following:

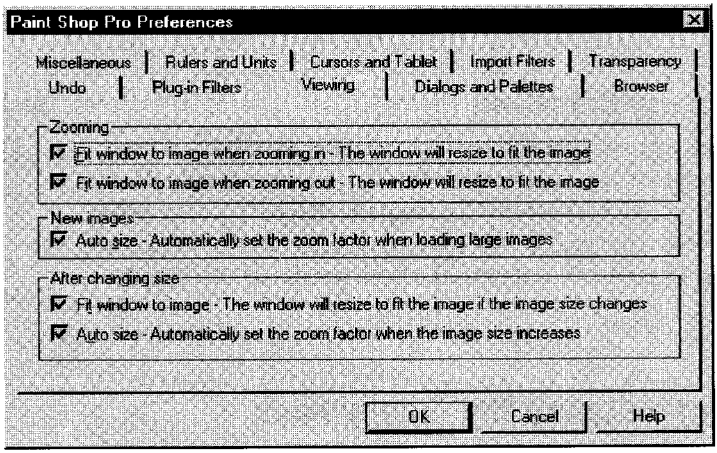
1 From the File menu, choose Preferences, and then choose General Program Preferences from sub-menu. The Paint Shop Pro Preferences dialog box opens.

2 Click the Viewing tab to bring it to the front.

3 In the Zooming panel, select the check boxes if you want the window to resize to fit the image as the zoom level changes. Leave them unchecked to keep the window size constant.

4 Click OK to close the dialog box and apply your selection.

Viewing Tab



Paint Shop Pro Preferences

Zooming

☑ Fit window to image when zooming in - The window will resize to fit the image

☑ Fit window to image when zooming out - The window will resize to fit the image

New images

☑ Auto size - Automatically set the zoom factor when loading large images

After changing size

☑ Fit window to image - The window will resize to fit the image if the image size changes

☑ Auto size - Automatically set the zoom factor when the image size increases

Resizing the Window at Other Times

You can resize the window to fit the image at any time by choosing Fit to Image from the Window menu.

Enlarging the Image Window

To enlarge the image window, drag it by any edge or corner. The cursor will change to a double arrow to indicate an area that can be dragged.

Opening a New View of an Image

When you edit an image, it can be helpful to magnify the section you are editin and at the same time see the effect on the entire image. You can do this by opening multiple windows of an image. These new windows are NOT new images—they are new views of the image and are linked. Any changes you mak to the image in one window you also make to the images in the other windows. However, because the zoom factor is independent, you can zoom in for close-u work on one window while displaying the entire image in another window.

To open a new window of an image, choose New Window from the Windows menu.

When more than one window is open, you can close any window, including th original. The image stays open as long as at least one window is open.

rranging Windows within the Workspace

The Windows menu contains three commands that determine how the open image windows are arranged within the workspace:

- Cascade, which aligns the open windows by their upper left corners in a stack.
- Tile Horizontally, which aligns the open pictures in rows by width.
- Tile Vertically, which aligns the open pictures columns by height.

HANGING THE SIZE OF AN IMAGE

ropping an Image

Cropping an image is like cropping a photograph—cut off one or more of the image's edges, eliminating the unwanted area. Paint Shop Pro lets you crop an image in two ways—using either the Crop tool or the Crop area dialog box.

Using the Crop Tool

Crop Tool

To crop an image using the Crop tool:

1. Click the Crop tool on the Tools palette.
2. If the Control palette isn't visible, display it now.
3. If necessary, click the Tool Controls tab to bring it to the front.
4. Move the cursor to any point of the area in the image that you want to keep If the cursor is set to Precise in the General Program Preferences dialog box, the cursor becomes crosshairs. If the cursor is set to Standard, it looks like it button.
5. Press the left mouse button and drag to the opposite corner of the area you want to keep. A rectangle appears as you drag. The area inside the rectangl will be saved; the area outside the rectangle will be cropped.
6. When the area you want to keep is inside the rectangle, release the mouse.
7. If you want to change the area to be saved:
   - To increase or decrease the area enclosed by the rectangle, drag any of i sides.
   - To remove the rectangle and start over, right-click the image.
   - To change the area to be cropped, click inside the rectangle and drag it a new location.

8 After you have finished, double-click within the selected area, click the Crop Image button on the Tools Control tab of the Control palette, or choose Crop from the Image menu. The unwanted area is deleted, and the image window resizes.

Crop Image Button on Control Palette

Using the Crop Area Dialog Box

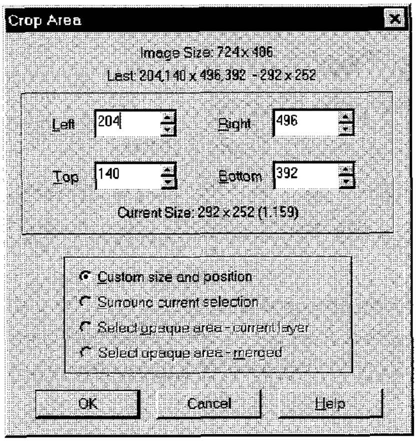
Use the Crop dialog box to have Paint Shop Pro automatically crop all transparent areas or all areas outside a selection or specific coordinates.

To use the Crop Area dialog box:

1 To crop around a selection, make the selection now.

2 Double click the Crop tool to open the Crop Area dialog box.

Crop Area Dialog Box



Crop Area

Image Size: 724 x 496

Last: 204,140 x 496,392 - 292 x 252

Left: 204

Right: 496

Top: 140

Bottom: 392

Current Size: 292 x 252 (1.159)

● Custom size and position

○ Surround current selection

○ Select opaque area - current layer

○ Select opaque area - merged

3 Select 1 of 4 cropping methods.

- To crop around a specific area, enter the coordinates of the area to be retained.
- To crop around a selection, select the Surround current selection option.
- To crop the transparent area of a layer, select the Select opaque area-current layer option.
- To crop the transparent area of the image, select the Select opaque area-merged option.

4 Click the OK button to close the dialog box and crop the image.

Using the Crop to Selection Command

The Crop to Selection command is available whenever you have a selection but have not activated the Crop tool. Use this command to delete all the image excep the selection and reduce the image size to the length and width of the selection.

To use, choose the command from the Image menu.

Resizing the Image Canvas

Resizing the image canvas changes the dimensions of the image by adding or removing pixels around the original image. When resizing the canvas, you can add or remove pixels around the entire image or around selected edges.

Resize Canvas Button

The background color of the new canvas depends on the background color of th image:

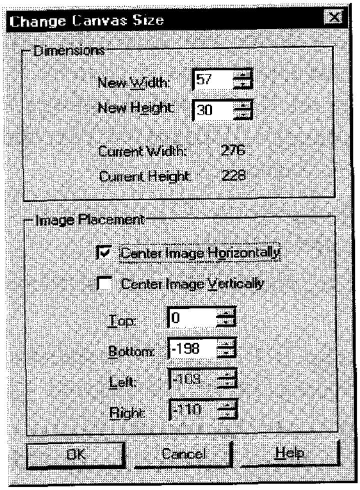
- The current background color becomes the color of the background layer's background.
- The background color on all other layers will be transparent.

To resize the image canvas:

1 Select a background color, if appropriate. For help selecting a background color, see Chapter 6, "Working with Color."

2 Choose Canvas Size from the Image menu or click the Resize Canvas button The Change Canvas Size dialog box opens.

Change Canvas Size Dialog Box



Change Canvas Size

Dimensions

New Width: 57

New Height: 30

Current Width: 276

Current Height: 228

Image Placement

☑ Center Image Horizontally

☐ Center Image Vertically

Top: 0

Bottom: -198

Left: -109

Right: -110

3 In the Dimensions panel, enter new pixel measurements in the New Width and New Height boxes using the spin controls or by typing a number. The current width and height are displayed for your reference.

4 Select the placement of the image in the new canvas.

5 To center the image in the new canvas, select both the "Center the Image Horizontally" and the "Center the Image Vertically" check boxes. The boxes below them become dimmed.

   - To center the image horizontally, select the "Center the Image Horizontally" check box. The Left and Right boxes become dimmed.
   - To center the image vertically, select the "Center the Image Vertically" check box. The Top and Bottom boxes become dimmed.
   - To position the image off-center, leave the check boxes unchecked.

6 If you have left any check boxes unchecked, use the Image Placement boxes to position the image. The Top and Bottom boxes control the vertical placement; the Left and Right control the horizontal placement. Each pair of boxes works in unison—as you increase the numbers in one box, the numbers in the other box decrease.

7 After positioning the image, click the OK Button. The dialog box closes and the new canvas appears in the image window.

esizing an Image

To resize an image:

Resize Image Button

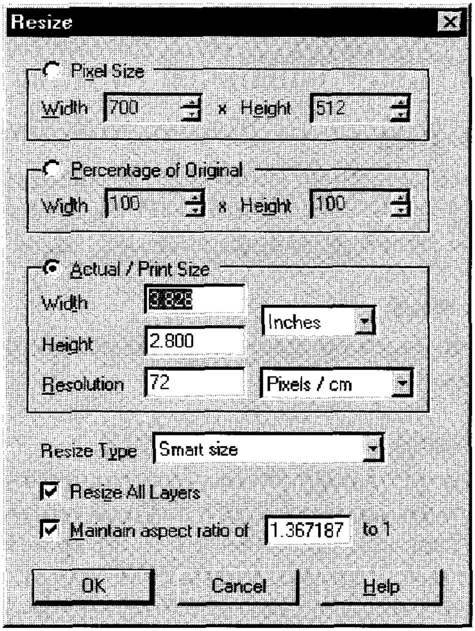
1 Choose Resize from the Image menu or click the Resize button. The Resize dialog box opens.

2 Go to the line in the dialog box above the buttons that reads Maintain aspect ratio of *[a number]* to 1.
Aspect ratio is the relationship of the image's width to height; width is the variable you can change. If you want to retain the original proportions whe resizing, select this check box.

3 Return to the upper portion of the dialog box and select a measurement option. There are three options:

   - With Pixel Size, you select a new size by choosing a new measurement i pixels.
   - With Percentage of Original, you select a new size based on a percentag increase or decrease from the original.
   - With Actual/Print Size, you select a new size by changing the resolutio or dimensions. Note that the two are linked.

Resize Dialog Box



Resize

○ Pixel Size
Width 700 x Height 512

○ Percentage of Original
Width 100 x Height 100

● Actual / Print Size
Width 3.828
Height 2.800
Inches
Resolution 72 Pixels / cm

Resize Type Smart size

☑ Resize All Layers

☑ Maintain aspect ratio of 1.367187 to 1

4 Enter new measurements in the Width and Height boxes of the selected panel by using the spin controls or typing a number. If you selected the maintain aspect ratio option, changing the width changes the height, and vi versa. In the Actual/Print Size panel, you can also change the resolution.

5 In the Resize type box, scroll to select the method you want Paint Shop Pro use when resizing. (See below for information on the methods.)

6 In an image more than one layer, select the Resize all Layers check box to change the canvas size, thereby resizing the entire image. Leave the box unchecked to resize only the active layer.

7 Changing the aspect ratio recalculates the image's dimensions. To create a custom size using the aspect ratio, enter the width. Paint Shop Pro calculate the necessary height.

8 After you have finished, click the OK Button. The Resize dialog box closes and the image or layer size changes.

Resizing Methods

Paint Shop Pro includes four methods for changing an image's width and heigh

- Pixel Resize Method

- Smart Size Method
- Bilinear Resample Method
- Bicubic Resample Method

Pixel Resize Method

With the Pixel Resize method, Paint Shop Pro duplicates or removes pixels as necessary to achieve the desired width and height of an image. It produces better results than the resampling methods with hard-edged images.

Smart Size Method

With the Smart Size method, Paint Shop Pro chooses the best algorithm based on the current image characteristics.

Bilinear and Bicubic Resampling Method

The Bicubic Resampling method of resizing minimizes the raggedness normally associated with expanding an image by using a process called interpolation. As applied here, interpolation smoothes out rough spots by estimating how the "missing" pixels should appear, and then filling them with the appropriate color. It produces better results than the Pixel Resize method with photo-realistic images and with images that are irregular or complex. Use the Bilinear Resampling method for shrinking these images and Bicubic for enlarging them.

Bilinear and Bicubic resampling are available for grey scale images and 24-bit images.

If the image does not fit these categories, and you would like to use one of these methods, do the following:

1. Increase the image's color depth.
2. Resize the image.
3. Return it to the original color depth.

For help increasing and decreasing color depth see Chapter 7, "Making Color Adjustments."

DDING BORDERS TO AN IMAGE

Add Borders Button

NOTE: Before adding borders, the image must be flattened. If the image contains more than one layer, Paint Shop Pro will display a message asking to flatten the image.

To add borders to the active image:

1 Select the borders color. The color applied is the background color. For help selecting a background color, see Chapter 6, "Working with Color."

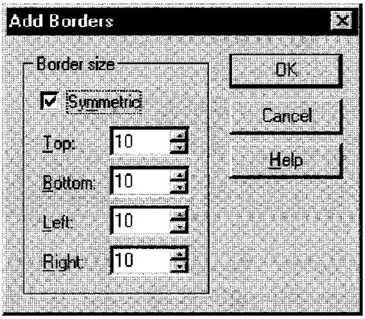
2 Choose Add Borders From the Image menu or click the Add Borders button The Add Borders dialog box opens.

3 To add borders equally on all sides, select the Symmetric check box. To add borders of unequal width, leave the check box unchecked.

4 Enter the Border Width(s) by typing the number in the boxes or using the spin controls. If you have selected the Symmetric option, the boxes are linked—changing the width in one box automatically changes the width in the others.

5 Click the OK Button. The Add Borders dialog box closes and borders appea around the image.

Add Borders Dialog Box



Add Borders

Border size

☑ Symmetric

Top: 10

Bottom: 10

Left: 10

Right: 10

ASIC IMAGE EDITING

ndoing the Previous Action

The Undo command reverses the last edit or command made to the active imag It can remove painting or drawing commands, color alterations, filter effects, etc You can even set the number of edits you want to undo. The number is limited only by the disk space in your computer. For help setting Undo preferences, see Chapter 12, "Configuring Paint Shop Pro."

Undo Button

To use the command, do one of the following immediately after making the edit or choosing the command you want to undo:

- Choose Undo from the Edit menu.
- Click the Undo button on the toolbar.

ndoing Earlier Actions

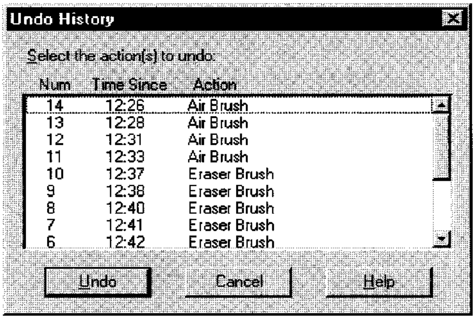
The Undo History command lets you view your previous actions and select which of them to undo. You can allocate storage space for saving the Undo History, compress the information to save space, select the number of steps to save, and update the Undo History with each brush stroke. For help with setting the Undo options, see Chapter 12, "Configuring Paint Shop Pro."

To use the Undo History:

1. Choose Undo History from the Edit menu or click the Undo History button. The Undo History dialog box opens. The dialog box displays the type of action and time lapsed since the action occurred.

Undo History Button

Undo History Dialog Box



Undo History

Select the action(s) to undo:

Num	Time Since	Action
14	12:26	Air Brush
13	12:28	Air Brush
12	12:31	Air Brush
11	12:33	Air Brush
10	12:37	Eraser Brush
9	12:38	Eraser Brush
8	12:40	Eraser Brush
7	12:41	Eraser Brush
6	12:42	Eraser Brush

2. In the list, select the actions to undo, starting with the previous action. The most recent action has the highest number and is at the top of the list.
3. Click the Undo button. The Undo History dialog box closes, and the results of the actions are removed from the image.

everting to Saved

Revert to Saved Button

To undo the changes made since an image was last saved, choose Revert from the File menu or click the Revert button.

learing a Selection

The effect of the Clear command depends on whether the selection is floating.

- If the image contains a floating selection, the Clear command deletes the selection without affecting the image.
- If the image contains a standard selection, the Clear command deletes the contents of the selection. On a layer, the cleared selection area becomes

transparent; on a background layer or an 8-bit or lower image, the cleared selection area becomes the background color.

To clear a selection, do one of the following:

- Choose Clear from the Edit menu.
- Press <Del>.

Cutting, Copying, and Pasting

The cut, copy, and paste commands use the Windows clipboard to transfer imag data.

The Cut Command

The Cut command removes the selection from the image and places it on the Windows clipboard. If the selection was removed from a layer, that area of the layer becomes transparent. If the selection was removed from a background lay or an 8-bit or lower image , the area becomes the background color.

To use the Cut command, do one of the following:

- Choose Cut from the Edit menu.
- Click the Cut button on the toolbar.

Cut Button

The Copy Commands

The Copy commands places a duplicate of the selected data on the clipboard without affecting the original image. The commands differ in their treatment of layers.

Copy

The Copy command copies visible data from the active layer only.

To use the Copy command, do one of the following:

- Choose Copy from the Edit menu.
- Click the Copy button on the toolbar.

Copy Button

Copy Merged

The Copy Merged command copies all visible data, regardless of the layer.

To use the Copy Merged command, choose Copy Merged from the Edit menu.

The Paste Commands

The Paste command places a copy of the Windows clipboard contents into the same or a different image, depending on the Paste command chosen.

You can paste the clipboard contents in five ways:

- As a New Image
- As a New Layer
- As a New Selection
- As a Transparent Selection
- Into a Selection

As a New Image

When you paste as a new image, Paint Shop Pro creates a new image file containing the contents of the Windows clipboard. If the contents are in a metafile format, Paint Shop Pro opens the Meta Picture Import dialog box. For information on file formats, see Chapter 12, "Configuring Paint Shop Pro."

To paste as a new image, do one of the following:

- Choose Paste from the Edit menu, and then choose As New Image from the submenu.
- Click the Paste as New Image toolbar button.

Paste as New Image

As a New Layer

When you paste data as a new layer, Paint Shop Pro makes the clipboard contents into a new layer above the active layer.

Paste as New Layer

To paste the clipboard contents as a new layer, do one of the following:

- Choose Paste from the Edit menu, and then choose As New Layer from the submenu.
- Click the Paste as New Layer toolbar button.

As a New Selection

When you paste the clipboard contents as a new selection, Paint Shop Pro adds it to the image and defines it as a selection.

To paste the clipboard contents as a new selection:

1. Open or select the image into which you want to paste the clipboard contents.
2. Do one of the following:
   - Choose As New Selection from the Paste sub-menu of the Edit menu.
   - Click the Paste as New Selection button on the toolbar.

   Paste As New Selection

3. If the data is in a metafile format, Paint Shop Pro opens the Meta Picture Import dialog box. For information on file formats, see Chapter 12, "Configuring Paint Shop Pro."
4. Use the mouse to position the selection.
5. After you have positioned the selection, click once to release it.

As a Transparent Selection

When you paste the clipboard contents as a transparent selection, Paint Shop Pro adds it to the current image as a selection after deselecting pixels that match the color and tolerance settings in the Transparent Color Select dialog box. Any deselected pixels are transparent. For help with transparent selections, see Chapter 5, "Working with Selections."

To paste the clipboard contents as a transparent selection:

1. Open or select the image into which you want to paste the clipboard contents.
2. Choose As Transparent Selection from the Paste sub-menu of the Edit menu or click the Paste As Transparent Selection button on the toolbar. The selection appears in the image.

   Paste As Transparent Selection

3. If the data is in a metafile format, Paint Shop Pro opens the Meta Picture Import dialog box. For information on file formats, see Chapter 12, "Configuring Paint Shop Pro."
4. Use the mouse to position the selection.
5. After you have positioned the selection, click once to release it.

Into a Selection

When you paste data into a selection, Paint Shop Pro replaces the contents of the selection with the contents on the clipboard. For help with selections, see Chapte 5, "Working with Selections."

To paste the clipboard contents into a selection:

1 Open or select an image.
2 Make the selection into which you will paste the clipboard contents.
3 Choose Into Selection from the Paste sub-menu of the Edit menu. The pasted contents appear in the image. If the selection into which the contents are pasted is smaller than the item being pasted, only as much of the content as fits will appear.
4 If the data is in a metafile or vector format, Paint Shop Pro will open the Met Picture Import Dialog Box. For information on file formats, see Chapter 12, "Configuring Paint Shop Pro."

mptying the Clipboard

Emptying the clipboard removes the clipboard contents, thereby freeing memory

To empty the clipboard, in the Edit menu, choose Empty, and then choose Clipboard.

mptying the Undo Buffers

Use this command to empty the contents of the Undo History list, thereby freein disk space. You can allocate storage space for saving the Undo History and compress the information to save space in the Undo tab of the General Program Preferences. For help on setting the Undo options, see Chapter 12, "Configuring Paint Shop Pro."

To empty the buffers, in the Edit menu, choose Empty, and then choose Undo Buffers.

CHAPTER

Using the Browse

The Paint Shop Pro Browser is a tree-based Browser similar to the Windows Explorer. It is a visual file system that makes image file management easier and more intuitive.

When you select a folder using the Browser, Paint Shop Pro displays small preview buttons, called thumbnails, of the images within this folder. You can open, move, rename, and delete files using these thumbnails. You can even add layers to an image. Drag a thumbnail over an active image; when you release th mouse button, Paint Shop Pro adds the layers from the thumbnail's image to the open image.

ROWSER BASICS

pening the Browser

Browse Button

To open the Browser, do one of the following:

- Choose Browse from the File menu.
- Click the Browse button on the toolbar.
- From the Open dialog box, click Browse.

Browser Menu

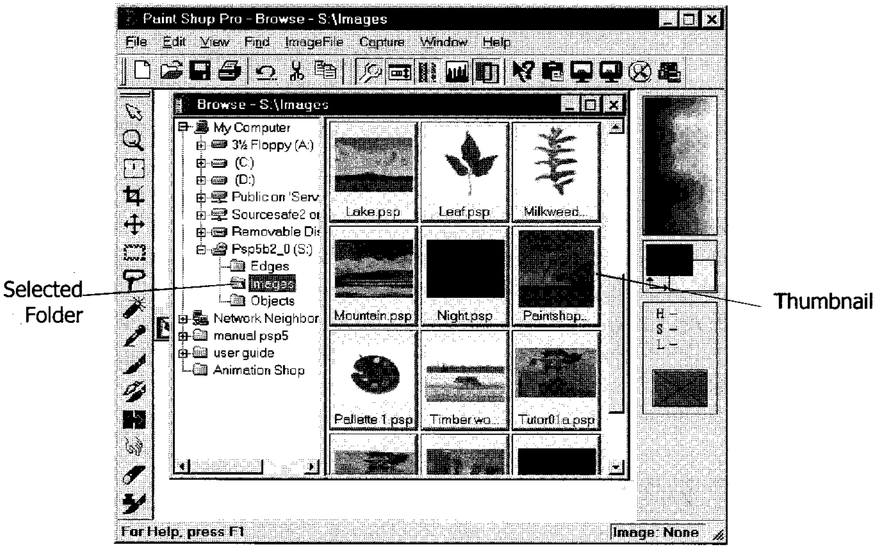
File
Edit
View
Find
ImageFile
Capture
Window
Help

When the Browser window opens, its menus and commands appear on the Me bar of the Main window. The ImageFile menu contains file management commands, which you can access from the menu or by right-clicking a thumbnail. Use the Find menu commands to locate specific files and the File menu commands to preview and print thumbnails.

avigating with the Browser

Navigate through the folders using the left side of the Browser. When you click a folder, thumbnails of the images Paint Shop Pro supports appear in the right side of the window.

Paint Shop Pro Browser

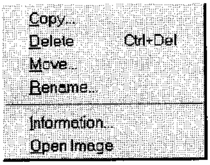

Paint Shop Pro - Browse - S:\Images
File Edit View Find ImageFile Capture Window Help
Browse - S:\Images
My Computer
3½ Floppy (A:)
(C:)
(D:)
Public on 'Serv
Sourcesafe2 o
Removable Di
Psp5b2_0 (S:)
Edges
Images
Objects
Network Neighbor
manual psp5
user guide
Animation Shop
Lake.psp
Leaf.psp
Milkweed...
Mountain.psp
Night.psp
Paintshop...
Pallette 1.psp
Timberwo...
Tutor01a.psp
H -
S -
L -
For Help, press F1
Image: None
Selected Folder
Thumbnail

iewing Image File Information

To view more information about a thumbnail, do one of the following:

- Right-click the thumbnail, and choose Information from the pop-up menu.
- Click the thumbnail, and choose Info from the ImageFile menu.

Thumbnail Pop-Up Menu


Copy...
Delete Ctrl+Del
Move...
Rename...
Information...
Open Image

The File Information box opens. It lists the file's format, compression method, size, bit depth, and other information.

)pening an Image File

To open an image, do one of the following:

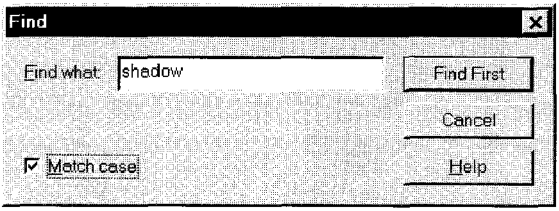
- Drag its thumbnail into the Paint Shop Pro workspace. You can open severa images at one time by dragging them into the workspace. The number of images you can open is limited only by the memory of the computer.
- Right-click its thumbnail and choose Open from the pop-up menu.
- Double-click its thumbnail. To select more than one image, press <Ctrl> + Click each image, and then <Ctrl> + double-click the final image.

NOTE: If you select a meta or vector file, a Photo-CD file, or a RAW file, Paint Shop Pro may open a format-specific dialog box requesting additional information. For information on file format preferences, see Chapter 12, "Configuring Paint Shop Pro."

.ocating Files Within a Folder

If you have a folder containing several image files, use the Browser's Find function to search the folder.

Find Dialog Box



Find

Find what: shadow

☑ Match case

To locate files using the Browser:

1. Choose File Name from the Find menu. The Find dialog box opens.
2. Type all or part of the file's name into the text box. The Browser will highlight the first file it finds that has the search string anywhere in its name For example, if you enter "shadow," the Browser would highlight the first thumbnail with a file name that contains "shadow."
3. If you want the search to be case-sensitive, select the "Match case" check bo: In a case-sensitive search, Paint Shop Pro highlights only those files with the same case as the search text. For example, in a case-sensitive search for "shadow," Paint Shop Pro will not highlight files that contain "Shadow," or "SHADOW," or any other combination of cases.

4 Click the Find First button. The Browser searches for the text that you entered.

5 If the Browser finds a thumbnail with matching text, it will highlight the thumbnail. To keep searching, choose Repeat Find from the Find menu.

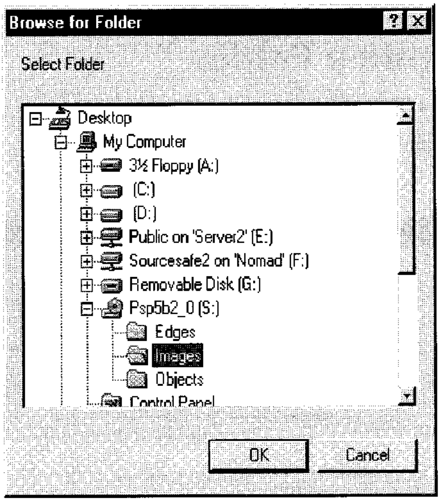
6 If the Browser doesn't find any matching text, a message will appear stating that there was no match. Click OK to close the prompt message.

hanging Folders

To select a new folder to browse, do one of the following:

- Click the folder in the left side of the Browser window.
- Choose New Folder from the File menu to open the Browse for Folder navigation box. Use the navigation box to find and select the new folder.

Browse for Folder Navigation Box


Browse for Folder
Select Folder
Desktop
My Computer
3½ Floppy (A:)
(C:)
(D:)
Public on 'Server2' (E:)
Sourcesafe2 on 'Nomad' (F:)
Removable Disk (G:)
Psp5b2_0 (S:)
Edges
Images
Objects
Control Panel
OK
Cancel

opying Layers to a File

Use thumbnails to copy layers from any file to any open file.

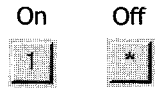
To copy layers:

1 Open a file in the workspace. The image must be a 24-bit color or a grey scal image.

2 Activate the layer where you want to copy the new layer. (New layers that are added appear above the active layer of the image.)

3. Use the Browser to locate the thumbnail of the image containing the layers you want to copy.
4. Drag the thumbnail over the open file.
5. Release the mouse button.

Layer Group Button



The layers appear in the image. When first added, the layers are grouped and move together. To ungroup them, click the Group Layer button on the Layer palette.

SING THUMBNAILS TO SELECT FILES

electing Specific Thumbnails

You can select a single thumbnail, a sequential group of thumbnails, or a non-sequential group of thumbnails.

Selecting a Single Thumbnail

Select a single thumbnail in a folder by clicking it. The border around the thumbnail changes color to indicate that it has been selected.

Selecting Sequential Thumbnails

To select sequential thumbnails:

1. Click the first thumbnail in the sequence that you want to select.
2. Press and hold the <Shift> key.
3. Click the last thumbnail in the sequence.

Selecting and Deselect Non-Sequential Thumbnails

To select and deselect non-sequential thumbnails:

1. Press and hold the <Ctrl> key.
2. Click the thumbnails you want to select. Clicking once selects a thumbnail; clicking again deselects it.

electing All Thumbnails

To select all thumbnails:

1. Press <Shift> + <Home>.
2. Press <Shift> + <End>. The Browser highlights every thumbnail.

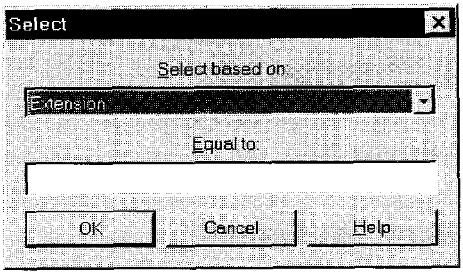
electing Thumbnails by File Characteristics

You can select thumbnails that have a specific file name, file extension, width, height, or bits per pixel.

To select thumbnails by file characteristics:

1. Choose Select from the File menu. The Select dialog box opens.
2. Select a file characteristic from the Select Based On list. You can choose file, extension, width, height, or bits per pixel.

Select Dialog Box



Select based on: Extension

3. In the Equal to box, type the information corresponding to the characteristic you selected:

Select Based On	Equal To Information
• Filename	Enter the file's name, including the extension, or an portion thereof.
• Extension	Enter the file's extension, without the period (".").
• Width	Enter an image's width in pixels.
• Height	Enter an image's height in pixels.
• Bits Per Pixel	Enter the number of bits recorded per pixel in an image.

4. Click the OK button. The Browser highlights the thumbnails that match the file characteristic.

ANAGING THUMBNAILS

pdating the Thumbnails

To update the thumbnail images for the current folder, choose Update from the File menu.

Updating does two things:

- Revises the thumbnail images to reflect any changes to the files.
- Adds and removes thumbnails to match the current contents of the selected folder.

orting Thumbnails

You can arrange the thumbnails so that they appear in ascending or descending order according to file and image characteristics.

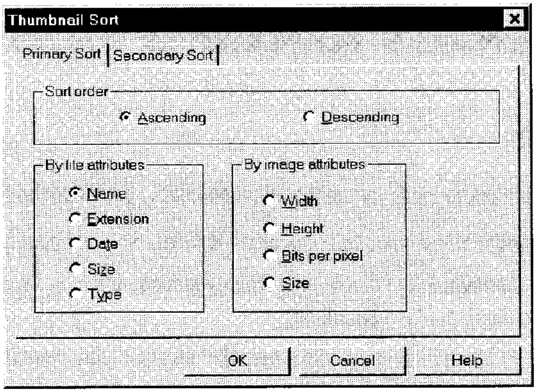
NOTES: Sorting thumbnails is a one-time operation. The thumbnails will not remain sorted if you add new images or change the properties of the existing files.

New images are always added to the end of the list.

To sort the thumbnails in a folder:

1 Choose Sort from the File menu. The Thumbnail Sort dialog box opens. There are two criteria groups, the Primary Sort and the Secondary Sort.

Primary Thumbnail Sort



Thumbnail Sort

Primary Sort | Secondary Sort

Sort order

● Ascending ○ Descending

By file attributes

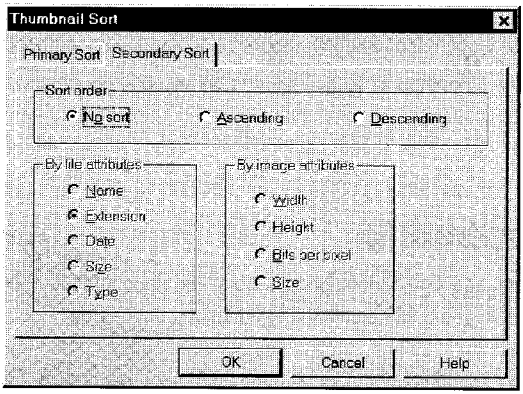
● Name
○ Extension
○ Date
○ Size
○ Type

By image attributes

○ Width
○ Height
○ Bits per pixel
○ Size

2. In the Sort order panel of the Primary Sort tab, select to sort the images by ascending or descending order.
3. In one of the other two panels, select either a file attribute or an image attribute.
4. Click the Secondary Sort tab to bring the secondary sort criteria to the front.

Thumbnail Secondary Sort


Thumbnail Sort
Primary Sort
Secondary Sort
Sort order
● No sort
○ Ascending
○ Descending
By file attributes
○ Name
● Extension
○ Date
○ Size
○ Type
By image attributes
○ Width
○ Height
○ Bits per pixel
○ Size
OK
Cancel
Help

5. Do one of the following:
   - Repeat the process you used to select the primary criteria.
   - Click the No sort option. When this option is selected, no secondary sort criteria is used. The file and image attributes options are not available.

Click the OK button. The Browser sorts the thumbnails according to the order and criteria you selected.

USING THUMBNAILS TO MANAGE FILES

Copying a File

NOTE: You can copy one or several files using the following method.

To copy an image file from the current folder to another folder:

1. Open the Browser by choosing Browse from the File menu or by clicking the Browse button on the toolbar.
2. Navigate to the folder containing the image you want to copy.
3. Highlight the file's thumbnail.

4. Do either of the following:
    - Choose Copy from the ImageFile menu.
    - Right-click the thumbnail and choose Copy from the pop-up menu.

    The Browse for Folder navigation box opens.
5. Scroll to the folder in which you want to place the copy.
6. Click OK. The navigation box closes, and the image file is copied to the selected folder.

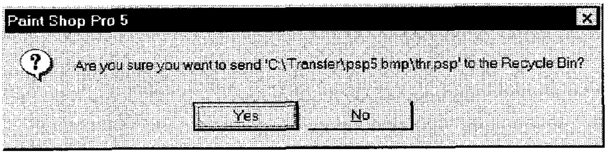
eleting a File

NOTE: You can delete one or several files using the following method.

To delete an image file using the thumbnail:

1. Open the Browser by choosing Browse from the File menu or by clicking the Browse button on the toolbar.
2. Navigate to the folder containing the image you want to delete.
3. Highlight the file's thumbnail.
4. Do either of the following:
    - Choose Delete from the ImageFile menu.
    - Right-click the thumbnail and choose Delete from the pop-up menu.
5. A message asking you to confirm your action will appear.

Delete Confirmation Prompt



Are you sure you want to send 'C:\Transfer\psp5 bmp\thr.psp' to the Recycle Bin?

6. Click Yes to delete the selected file.

loving a File

NOTE: You can move one or several files using the following method.

To move an image file from the current folder to another folder:

1. Open the Browser by choosing Browse from the File menu or by clicking the Browse button on the toolbar.
2. Navigate to the folder containing the image you want to move.

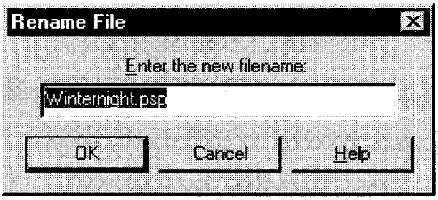
3. Highlight the file's thumbnail.
4. Do either of the following:
   - Choose Move from the ImageFile menu.
   - Right-click the thumbnail and choose Move from the pop-up menu.
5. The Browse for Folder navigation box opens.
6. Navigate to and highlight the new folder.
7. Click OK. The navigation box closes and the file moves to the selected folde

Renaming a File

To rename a file:

1. Open the Browser by choosing Browse from the File menu or clicking the Browse button on the toolbar.
2. Navigate to the folder containing the image you want to rename.
3. Highlight the file's thumbnail.
4. Do either of the following:
   - Choose Rename from the ImageFile menu.
   - Right-click the thumbnail and choose Rename from the pop-up menu.
5. The Rename File dialog box opens.

Rename File Dialog Box



Rename File

Enter the new filename: Winternight.psp

6. Type the new name. The file name can be up to 255 characters long, including the file extension. The Browser does not automatically add the extension. If you want the file name to include an extension, add it to the name.
7. Click the OK button. The file displays the new name.

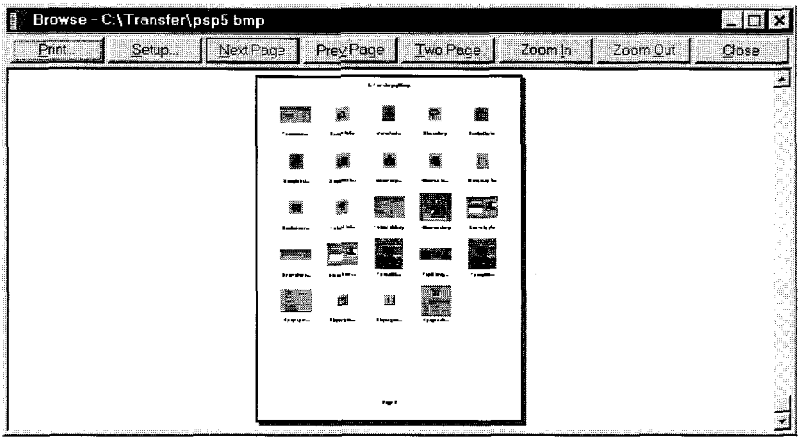
RINTING THUMBNAILS

reviewing Printed Thumbnails

Use the Print Preview to see how the thumbnails will look when printed.

Choose Print Preview from the File menu to open the Browser Print Preview window.

Browser Print Preview Window



The window contains several buttons:

Print button

Click to close the Browser Print Preview window and open the Print dialog box.

Next Page and Prev Page Buttons

These buttons will be accessible if the thumbnails cover more than one page. Click to move forward and back by one page respectively.

Two Page / One Page Button

Click to switch the display between two pages and one.

Zoom In and Zoom Out buttons

Click to change the magnification level. You can also zoom in and out by clicking the image.

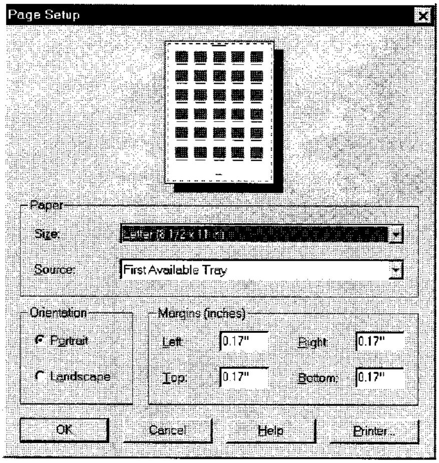
Setup button

Click to close the Print Preview window and open the Page Setup dialog box.

- Select the paper size and source in the Paper panel.
- Select either a landscape or portrait orientation in the Orientation panel.
- Set the margins in the Margins boxes.

When you close the Page Setup dialog box, Paint Shop Pro returns to the Browse
Print Preview window.

Page Setup Dialog Box



Paper

Size: Letter (8 1/2 x 11 in)

Source: First Available Tray

Orientation

● Portrait

○ Landscape

Margins (inches)

Left: 0.17"

Right: 0.17"

Top: 0.17"

Bottom: 0.17"

Close Button

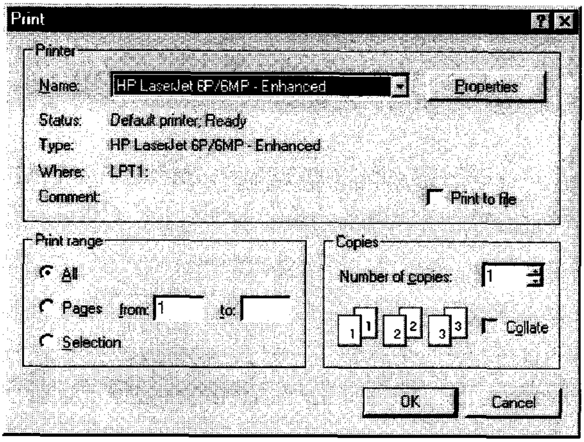
Click to close the Browser Print Preview window.

rinting Thumbnails

To print the thumbnails:

1. Open the Print dialog box by doing one of the following:
   - Choosing Print from the File menu.
   - Clicking the Print button on the toolbar.
   - Clicking the Print button in the Print Preview window.
2. Select a printer in the Printer Name box.
3. To change the selected printer's properties, click the Properties button. Pain Shop Pro opens the appropriate Properties dialog box. For help using the dialog box, try pressing <F1>.
4. To print the image to a file rather than to paper, select the "Print to File" check box. When you then click the Print button, the Print to File dialog box will open. Enter a location and name for the new file in this dialog box.
5. Select the Print Range. You can print all the thumbnails, a range of pages, o just the selected thumbnails. If you select "Pages," enter the first and last pages to print in the "from:" and "to:" boxes.

Print Dialog Box



Name: HP LaserJet 6P/6MP - Enhanced
Status: Default printer; Ready
Type: HP LaserJet 6P/6MP - Enhanced
Where: LPT1:
Comment:
☐ Print to file
● All
○ Pages from: 1 to:
○ Selection
Number of copies: 1
☐ Collate

6 Set the number of copies you want to print. If your printer does not support multiple copies, the Number of copies box will be grayed out.

7 Click OK. Paint Shop Pro sends the file to the printer or file.

losing the Browser

To close the Browser, either:

- Click the Browser window's Close button.
- Click the Browser window to activate it, then choose Close from the File menu.

ETTING THE BROWSER PREFERENCES

The Browser preferences control how Paint Shop Pro displays the image thumbnails and whether it saves the image data to the hard disk. Set the preferences on the Browser tab in the Preferences dialog box.

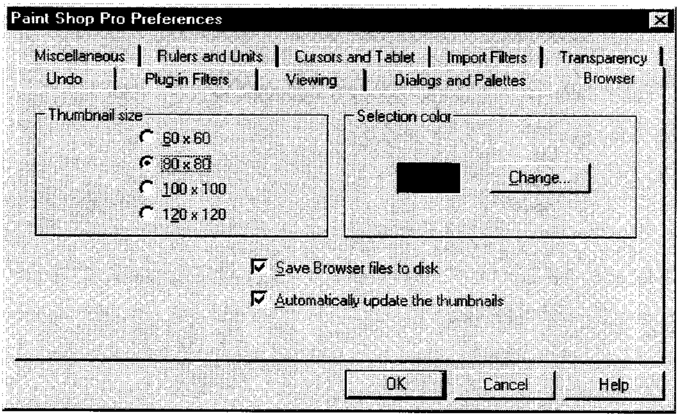
To set the Browser preferences:

1 In the File menu, choose Preferences, and then choose General Program Preferences from the Preferences submenu. The Preferences dialog box opens.

2 Click the Browser tab to bring it to the front.

3 Select a thumbnail size. Each option is defined as width and height in pixel

Browser Preferences Tab


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Change...
OK
Cancel
Help

Thumbnail size
○ 60 x 60
● 80 x 80
○ 100 x 100
○ 120 x 120

Selection color

☑ Save Browser files to disk

☑ Automatically update the thumbnails

4 To change the color that the Browser uses to highlight selected thumbnails, click the Change button. Paint Shop Pro will open the Color dialog box.

5 Use the dialog box to select the new color. For help using the Color dialog box, see Chapter 6, "Working with Color."

6 To have the Browser automatically save the thumbnails to an album, select the "Save Browser files to disk" check box. The file containing the image information will be named "PSPBRWSE.JBF," and it will be saved in the scanned folder. When you scan the folder again, the Browser will read the information from the file. This is faster than re-scanning the folder's images each time you select the folder.

7 To have the Browser automatically update the image information, select the "Automatically update the thumbnails" check box. When this option is selected, Paint Shop Pro will check to see if any image files have been added, deleted, or modified since the last time the folder was scanned, and it will update the thumbnails accordingly.

CHAPTER

Working with Selection

WHAT IS A SELECTION?

When you edit an image or apply a command, you usually alter the entire imag By making a selection, however, you can limit the area affected. A selection is a temporarily isolated area of an image that you can edit without altering the non selected area.

A selection is identified by a border of black and white dashes called a marquee The marquee defines the area of a selection, but is not restricted to it. The marquee can move with or without the selection it defines. When you move onl the marquee, the new area within it becomes the new selection.

MAKING A SELECTION

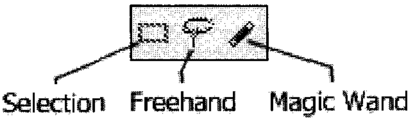
You can make a selection by selecting an area with a selection tool, by selecting specific colors, or by pasting the contents of the clipboard as a selection.

Access the Selection tools on the Tool palette and configure them on the Contro palette.

The tool palette contains the three selection tools:

- The Selection tool, which makes a selection of a precise shape
- The Freehand tool, which makes a selection of an irregular shape
- The Magic Wand tool, which makes a selection of a range of color, hue, or brightness

Selection Tools



sing the Selection Tool

The Selection tool makes selections in four shapes:

Selection Tool

- Rectangle
- Square
- Ellipse
- Circle

Setting the Selection Tool Options

Selection Type

Makes a selection in one of the four shapes listed above.

Feather

Feathering controls the sharpness of a selection's edges. By fading a set width (in pixels) along the edges, it produces a smooth transition between a selection and the surrounding area. You can feather a selection when or after you create it. Feather a selection when you create it by entering a feather value on the Tool Controls tab; feather it after by choosing the Feather command from the Modify submenu of the Selections menu. You must feather a selection before editing the data it contains. The feathering value is the width of the transition area in pixels. A higher feathering value creates softer edges by feathering more pixels. Feathering is useful when pasting a selection. The fading helps the selection blend into the background and appear more natural.

NOTE: Be sure to feather a selection before you apply any editing changes.

Antialias

Antialiasing is similar to feathering, but more precise. It produces a smooth-edged selection by partially filling in pixels along the edge, making them semi-transparent. If antialiasing is not applied, the edges of a selection can appear jagged. Antialiasing is useful when combining images and working with text.

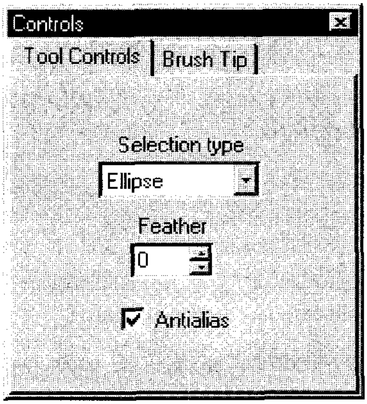
NOTE: You must select this option before making a selection; after making a selection, you cannot add it.

Setting the Options

Before making a selection, set the shape and other tool options:

1. If the Tools and Control palettes are not visible, display them by clicking their buttons on the toolbar or pressing <O> (for the Control palette) and <P> (for the Tool palette).
2. Click the Selection tool on the Tools palette.
3. On the Tool Controls tab of the Control palette, choose a shape from the Selection type drop-down box.
4. To feather the selection, type or use the spin controls to set a width in the Feather box. The width can be from 0 to 20 pixels. Set the width to 0 to creat a selection with no feathering.
5. To antialias the selection, select its check box.

Selection Tool Options

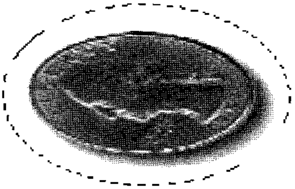


Selection type: Ellipse

Feather: 0

☑ Antialias

Elliptical Selection



Making a Selection

To make a selection:

1. Place the mouse at the corner or in the center of the area you want to select:
   - To create a rectangular or square selection, move the cursor to a corner the area you want to select.
   - To create a circular or elliptical selection, move the cursor to the center the area you want to select.

   The center of the crosshairs is the point.

2 Click and drag the mouse until the selection is the size you want. As the mouse moves, a line appears to indicate the border of the selection.

3 Release the mouse button. The selection border becomes a marquee.

sing the Freehand Tool

The Freehand tool makes selections with three types of borders:

- Irregularly shaped borders
- Point to point straight borders
- Borders from edges between contrasting color or light

Freehand
Selection Tool

Freehand Tool Options

Selection Type

Makes a selection in one of the three Freehand tools styles listed above.

Feather

Feathering controls the sharpness of a selection's edges. See "Setting the Selectio Tool Options," above, for a complete description.

NOTE: Be sure to feather a selection before you apply any editing changes.

Antialias

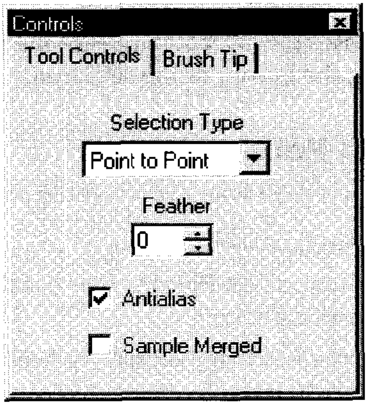
Antialiasing produces a smooth-edged selection by partially filling in pixels along the edge, making them semi-transparent.

NOTE: You must select this option before making a selection; after making a selection, you cannot add it.

Sample Merged

When selected, the Freehand tool makes the selection from all layers of the imag within the selected area. When the option is not selected, the Freehand tool limit the selection to the active layer.

Freehand Selection Tool Options



Selection Type: Point to Point

Feather: 0

☑ Antialias

☐ Sample Merged

Setting the Freehand Tool Options

Before making a selection, set the Freehand type and other tool options:

1. If the Tool and Control palettes are not visible, display them.
2. Click the Freehand tool on the Tools palette.
3. On the Tool Controls tab of the Control palette, choose one of the three tool types from the Selection type drop-down box.
4. To feather the selection, type or use the spin controls to set a width in the Feather box. The width can be from 0 to 20 pixels. Set the width to 0 to creat a selection with no feathering.
5. To antialias the selection, select its check box.
6. To create a selection using the entire image and not limit the action to the current layer, select the "Sample Merged" check box.

Making a Freehand Selection

To make a selection using the Freehand tool:

1. Click the Freehand tool, select Freehand as the Selection Type, and set the options as described above.
2. Move the cursor over the image. The center of the crosshairs is the point.
3. Click the image at any point you want to make part of the border of the selection.
4. Drag the cursor to create an outline of the area you want to select. IMPORTANT: Do not release the mouse while creating your selection.

5 If you release the mouse, start again or add to the selection using the method described below in "Adding to a Selection."

6 When the line encloses the selection, release the mouse. The line becomes a marquee indicating the border of the selection.

Making a Point to Point Selection

Use the Point to Point selection when you want to connect straight lines.

After clicking the Point to Point selection:

1 Click the Freehand tool, select Point to Point as the Selection Type, and set the options as described above.

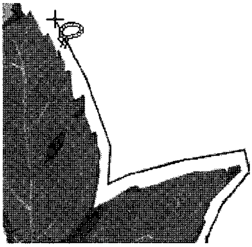
2 Click the cursor on the point in the image where you want your line to start. The center of the crosshairs is the point. As the mouse moves, a straight line connects it to the starting point.

3 Click the image wherever you want to anchor the line and change its direction.

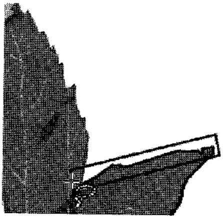
4 To delete an anchor point from the line, press <Delete> as you move to the next point.

5 When the line encloses the selected area and has connected to the starting point, either double-click or right-click the point. The line becomes a marque to indicate that the selection is complete.

Point to Point Selection



Smart Edge Selection



Making a Smart Edge Selection

Use the Smart Edge tool to select the border between two areas of contrasting color or light.

To make a Smart Edge selection:

1 Click the Freehand tool, select Smart Edge as the Selection Type, and set the options as described above.

2. Move the cursor over the image. The center of the crosshairs is the point.
3. Click where you want to start the selection, and then move the mouse. As you move it, a selection box encloses the edge.
4. Click the image as needed to keep the edge inside the selection box. Each time you click, the box shrinks into a line that follows the edge.
5. To remove the previous click point, press the <Delete> key as you move to the next click point.
6. When you have completed the selection, double-click or right-click the mouse. The line becomes a marquee indicating the border of the selection.

NOTE: If the border crosses over itself, everything within the border is selected.

Using the Magic Wand Tool

Unlike the other two selection tools, the Magic Wand tool works by selecting content instead of defining edges.

Magic Wand Tool

It uses four types of values for making selections:

- RGB Value
- Hue
- Brightness
- All Pixels

Magic Wand Options

Match Mode

Makes a selection based on one of the four values listed above. With RGB Value it selects pixels based on the amount of Red, Green, and Blue they contain. With Hue, it selects pixels based on the position in the color wheel of the hues. With Brightness, it selects pixels based on the amount of white they contain. With All Pixels, it selects only areas containing pixels. No transparent areas are selected.

Tolerance

Controls how similar to the selected mode the value of a pixel must be before it selected. At low settings, the values must be close. At higher settings the tolerance is greater, so the Magic Wand chooses more pixels.

Feathering

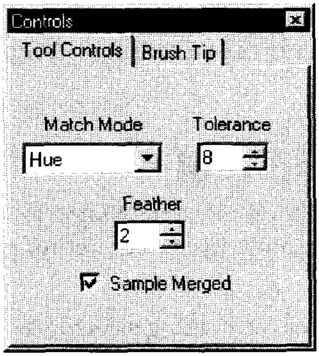
Feathering controls the sharpness of a selection's edges. See "Setting the Selectio Tool Options," above, for a complete description.

NOTE: Be sure to feather a selection before you apply any editing changes.

Sample Merged

When selected, the Magic Wand tool makes the selection from all layers of the image within the selected area. When the option is not selected, the Magic Wand tool limits the selection to the active layer.

Magic Wand Tool Control Tab



Match Mode: Hue

Tolerance: 8

Feather: 2

☑ Sample Merged

Setting the Options

Before making a selection, set the Magic Wand tool options:

1 Click the Magic Wand tool on the Tools palette.

2 Choose a selection mode from the Match Mode box of the Control palette's Tool Controls tab. The choices are RGB, Hue, Brightness, and All Pixels.

3 Choose a Tolerance factor by clicking the spin controls or typing a value.

4 To feather the selection, type or use the spin controls to set a width in the Feather box. The width can be from 0 to 20 pixels. Set the width to 0 to create a selection with no feathering.

5 To create a selection using the entire image and not limit the action to the current layer, select the "Sample Merged" check box.

Making a Magic Wand Selection

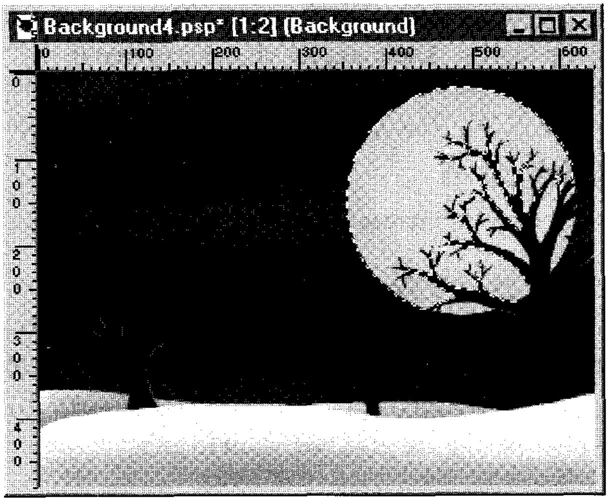
To make a Magic Wand selection:

1 Move the cursor over the image. The center of the crosshairs is the point.

2 Click the color you want to select.

3 Release the mouse button. A marquee surrounds the selection.

Magic Wand Selection



Making a Selection from a Mask

To make a selection from a mask:

1 Create a mask using any of the methods described in Chapter 10, "Using Masks."

2 From the Selections menu, choose From Mask.

Selecting All

To select an entire layer:

1 Click the Layer button of a layer to make it active.

2 Choose Select All from the Selections menu or click the Select All button on the toolbar. A marquee appears around the layer.

Select All Button

ODIFYING THE SELECTION AREA

nverting a Selection

At times, the easiest way to make a selection is to select the part of the image you don't want, and then reverse the selection. For example, if the background is one color, select it and then invert the selection.

To invert a selection:

Invert Selection Button

1. Make your selection using one of the methods listed above.
2. Choose Invert from the Selections menu or click the Invert button on the toolbar. The marquee changes so that it encloses the opposite area of the image.

dding to a Selection

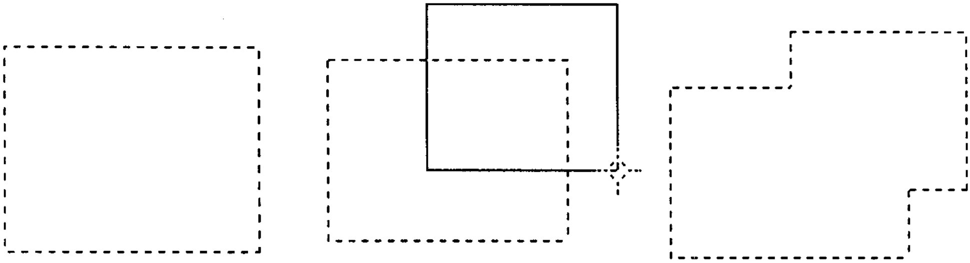
There are several ways to increase the area within a selection:

Using the Selection Tools

To add to a selection using the Selection and Freehand tools, press and hold down the <Shift> key while outlining the area you want to add.

To add to a selection using the Magic Wand tool, press and hold down the <Shift> key while clicking the area you want to add.

Adding to a Selection



Using the Expand Command

The Expand command enlarges the selection by a specific number of pixels while retaining its original shape.

To expand a selection:

1. Choose Expand from the Modify command of the Selections menu. The Expand Selection dialog box opens.
2. Select the number of pixels by which you want to expand the selection. You can select up to 100 pixels.
3. Click OK to close the dialog box and expand the selection.

Using the Grow Selection Command

NOTE: The Grow command can only be applied to a 24-bit color or a grey scale image.

The Grow Selection command expands the selection to include adjacent areas oi similar color using the Magic Wand tolerance settings.

To use the command, choose Grow Selection from the Modify command of the Selections menu.

Using the Select Similar Command

NOTE: The Select Similar command can only be applied to a 24-bit color or a grey scale image.

The Select Similar command selects all areas in the image with the same colors ε are present in the current selection using the Magic Wand tolerance settings. Th areas do not have to be adjacent to the current selection.

To use the command, choose Select Similar from the Modify command of the Selections menu.

;ubtracting from a Selection

Using the Selection Tools

To subtract from a selection using the Selection and Freehand tools, press and hold down the <Ctrl> key while outlining the area you want to remove.

To subtract an area from a selection using the Magic Wand tool, press and hold down the <Ctrl key> while clicking the area you want to remove.

Using the Contract Command

The Contract command shrinks the selection by a specific number of pixels whi retaining its original shape.

To contract a selection:

1. Choose Contract from the Modify command of the Selections menu. The Contract Selection dialog box opens.
2. Select the number of pixels by which you want the selection to contract. Use the spin controls or type a number. You can select up to 100 pixels.
3. Click OK to close the dialog box and contract the selection.

oving the Marquee

If you make a selection and then want to change the area the border encloses, move the marquee. This is useful when you want to fine-tune the area inside an oval or other selection shape.

NOTES: Before moving the marquee, you must click the Mover tool.

> *If you right-click the image with a selection tool, you remove the selection; if you click and drag within the selection, you float it and move the floating selection.*

To move the marquee:

1. Click the Mover tool on the Tools palette.
2. Right-click anywhere inside or on the marquee.
3. Drag the marquee to a new location.
4. Release the mouse button.

ELECTION MODES

There are two selection modes:

Standard

A standard selection is part of an image or layer. When you move or edit a standard selection, you modify the image itself.

Floating

A floating selection temporarily rests above the image or layer. You can move or modify it without changing the original image. The Layer palette displays a button labeled *Floating Selection* to indicate a selection is floating.

Floating a Selection

Float Button

To float a selection, choose Float from the Selections menu
or click the Float button on the toolbar.

The following actions also create or convert a selection to floating mode:

- Selecting the Floating option when creating text
- Pasting a selection by choosing Paste as New Selection from the Edit menu
- Dragging a selection using a selection tool and <Alt>+Click
- Dragging a selection using a selection tool

Defloating a Selection

Defloat Button

To change a selection from the floating to standard mode, choose Defloat from the Selections menu or click the Defloat button on the toolbar. Paint Shop Pro pastes the selection's contents into the layer underneath. The selection is still active; it has been defloated, not deselected.

The following actions also create or put a selection in standard mode:

- Creating a new selection (except when the Floating option is selected)
- Adding an area to or removing an area from a floating selection

MODIFYING THE EDGES OF A SELECTION

Matting a Selection

When you move a selection, some of the pixels surrounding the border are included, especially when the selection has been antialiased or feathered. Matti cleans up the border by removing these pixels. The matting commands can also be applied to layers.

Removing Black and White Matte

NOTE: The Matting commands can only be applied to a floating selection and t an image that is 24-bit color or grey scale.

When you copy (or cut) and paste an antialiased or feathered selection from a white or black to a colored background, the edge contains black and white. The Remove White Matte removes the white from the edge; the Remove Black Matte removes the black.

To remove the black or white matte:

1. If the selection is not floating, choose Float from the Selections menu.
2. To remove the black matte, choose Remove Black Matte from the Matting command of the Selections menu; to remove the white matte, choose Remove White Matte.

Applying the Defringe Command

NOTE: The Defringe command can only be applied to a 24-bit color or a grey scale image.

Applying the Defringe command bleeds non-feathered pixels in the selection outward and over the "jaggies" in the feathered part of the selection. Use defringe when the background of selection is a color (not black or white).

To defringe a selection:

1. If the selection is not floating, choose Float from the Selections menu.
2. Choose Defringe from the Matting command of the Selections menu. The Defringe dialog box opens.
3. Enter the width you want to defringe by using the spin controls or typing a number.
4. Click OK. The dialog box closes, and Paint Shop Pro defringes the selection.

eathering a Selection

Use the Feather command to feather a selection after you select it. Feathering controls the sharpness of a selection's edges. By fading along the edges, it produces a smooth transition between a selection and the surrounding area. The feathering value is the width of the transition area in pixels. A higher feathering value creates softer edges by feathering more pixels. Feathering is useful when pasting a selection. The fading helps the selection blend into the background and appear more natural. Unlike antialiasing, feathering produces a loss of detail.

NOTE: Be sure to feather a selection before you apply any editing changes.

To feather a selection:

1. Choose Feather from the Modify command of the Selections menu. The Feather Selection dialog box opens.
2. Select the number of pixels by which you want to feather the selection. You can select up to 100 pixels.
3. Click OK to close the dialog box and feather the selection.

iding and Viewing the Marquee

The marquee is normally visible. However, as you work with selections, there will be times when you want to hide the marquee. For example, you may want see the results of pasting a selection or feathering a selection's edges.

NOTE: Hiding the marquee does NOT disable the selection; it merely hides it from view.

Marquee Button

To hide the marquee, do one of the following:

- Choose Hide the Selection Marquee from the Selections menu. A check mark appears in the menu next to the command.
- Click the Hide Marquee button on the toolbar.

To view the marquee again:

- Choose Hide the Selection Marquee again. The check mark disappears, and the marquee reappears.
- Click the Hide Marquee button on the toolbar.

DITING A SELECTION

utting a Selection

Cutting a selection removes it from the image or layer and places it on the clipboard. From the clipboard you can paste it into a different image or into a different area or layer of the same image. If you cut from a paletted image (256 c fewer colors) or background layer, the selected area is filled in with the background color. If you cut from a layer, the cut selection area becomes transparent.

To cut a selection, choose Cut from the Edit menu.

opying a Selection

Copying a selection places a copy of a selection on the clipboard while leaving the original image intact. From here you can paste it into a different image or int a different area or layer of the same image.

To copy a selection, choose Copy from the Edit menu.

opy Merged

This command is accessible only when an image has two or more layers. Use it t

opy Merged

This command is accessible only when an image has two or more layers. Use it t copy data from all the layers, not just the active layer. The Copy command copie only from the same layer as the selection. The Copy Merged command copies whatever is visible within the selection's borders.

To copy a selection in the merged mode, choose Copy Merged from the Edit menu.

asting a Selection

Pasting places a copy of the selection from the clipboard into an image. To paste a selection, choose the method of pasting from the Paste command of the Edit menu.

There are five ways to paste a selection:

Pasting as a New Image

Creates a new image from the selection. The background color of the new image is the current background color.

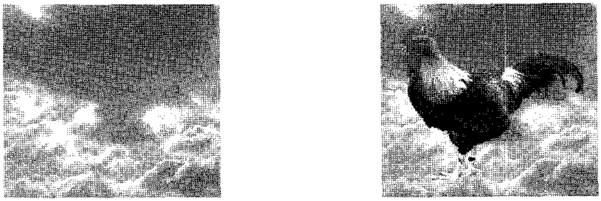
Pasting as a New Layer

Creates a new layer from the selection, either in the same or a different image. A selection must be the same size or smaller than the image into which it is pasted.

Pasting as a New Selection

Pastes the selection as a floating selection above the active layer of the original or a different image.

Pasting as a New Selection



Before

After

Pasting as a Transparent Selection

Pastes the selection as a floating selection above the active layer of the original or a different image. This command uses the background color for transparency anc

Pasting into a Selection

Resizes the pasted selection to the size of the selection it is pasted into.

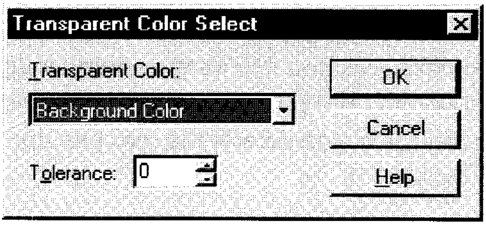
emoving a Selected Color

The Transparent Color command removes areas of a specific color from a selection. The areas become transparent. You can remove the following colors: white, black, red, green, blue, plus the foreground or the background color.

To remove areas of a specific color:

1. Make a selection.
2. If the color to be removed is not one of the five colors mentioned above, select it as the foreground or background color. For help with selecting colors, see Chapter 6, "Working with Color."
3. Choose Transparent Color from the Modify submenu of the Selections men The Transparent Color Select dialog box opens.
4. From the Transparent Color box, select the color.
5. Enter a tolerance value. The tolerance controls how closely a color must match the selected color to be removed. A high tolerance includes more colors.
6. Click OK. The dialog box closes and the color is removed from the selection.

Transparent Color Select Dialog Box



Transparent Color Select

Transparent Color: Background Color

Tolerance: 0

oving a Selection Within Its Image

When moving a selection, you can move the original selection and leave the space empty, or you can move a copy of the selection, leaving the original. Use the same tool to move the selection as you used to create it.

Dragging

Cutting and Dragging

To move a selection by cutting it from the layer and leaving a transparent area, drag the selection with the selection tool. When you drag the selection, it changes to a floating selection.

Copying and Dragging

To move a copy of a selection while leaving the original intact, <Alt>+Click and then drag the selection with the selection tool. When you drag the selection, it changes to a floating selection.

Moving Pixel by Pixel

To move a selection one pixel at a time, press and hold the <Shift> key while pressing the keyboard arrows.<Shift> + <↑> moves the selection up, <Shift> + <↓> the selection down, <Shift> + <←> moves the selection to the left, <Shift> + <→> moves the selection to the right. When you nudge the selection, it changes to a floating selection. Cutting the selection leaves a transparent area.

To move a copy of a selection one pixel at a time while leaving the original intact use the same method while keeping the <Alt> key pressed in.

learing a Selection

To clear a selection, choose Clear from the Edit menu.

- Clearing a standard selection deletes everything with a selection's marquee. The marquee remains, and you can still move it around in the image.
- Clearing a floating selection deletes the selection and marquee without affecting the image.

electing None

Use the Select None command to deselect a selection. The command removes the marquee and border from a selection. Floating selections will be defloated before being deselected.

Select None Button

To deselect an area:

- Click the Select None button on the toolbar.
- Choose the Select None command from the Selections menu.
- Right-click the image.

RANSFORMING A SELECTION

romoting to a Layer

NOTE: To promote a selection to a layer, the image must be a 24-bit color or a grey scale image.

This command copies a selection, both floating and standard, and creates a new layer from it. The selection area is retained in the layer, and the original selection is not affected. The promoted layer appears above the original selection's layer; the selection's button on the Layer palette changes to read *Promoted Selection*. Both floating and standard selections can be promoted. Use this command only to promote a selection within its image. To transform a selection into a layer in a different image from a selection, use the Paste as New Layer command describe above in "Editing a Selection."

To promote a selection to a layer, choose Promote to Layer from the Selections menu.

onverting to a Seamless Pattern

NOTE: To convert a selection to a seamless pattern, the image must be a 24-bit color or a grey scale image.

You create seamless patterns from selections. These custom-made patterns can then be used to paint with the Flood Fill tool or for Web backgrounds. The patterns created are always rectangular. When you use this command, a new window is created with the seamless pattern and the original image is not affected.

To convert a selection, choose Convert to Seamless Pattern from the Selections menu.

When Paint Shop Pro converts a selection to a seamless pattern, it uses the area surrounding the selection to eliminate the appearance of seams. If the selection i too close the edge of the image, a message indicating this will appear. If this message appears, either move the marquee or make a new selection closer to the center of the image, and choose the command again.

sing the Flip, Mirror, and Rotate Commands

You can flip mirror, and rotate selections in the same way that you flip, mirror, and rotate images. If the selection is not already floating, it be floated before being moved. For help using these commands, see Chapter 11, "Manipulating Images."

Using Effects, Deformations, and Filters

You can apply effects, deformations, and filters to selections. See Chapter 11, "Manipulating Images," for help using these functions.

NOTE: To apply deformations and filters to selections, the image must be a 24-bit color or a grey scale image.

SAVING A SELECTION

Paint Shop Pro lets you save a selection in two ways:

- As a file with the ".sel" extension on your hard drive
- As an alpha channel within the image

When you save a selection in the ".sel" format on your hard disk, you save it as separate file.

A channel contains information about the color elements in an image; for example, a RGB image contains a red channel, a green channel, and a blue channel. An alpha channel is a channel that saves information on a mask or selection you create. When you save a selection as an alpha channel, you save it as a grey scale bitmap within the image. An advantage of the ".psp" format is that the files hold the alpha channels within the image. TIFF and TGA files can hold one alpha channel; almost all the others will not hold any.

Saving to a Disk

To save a selection to the hard disk:

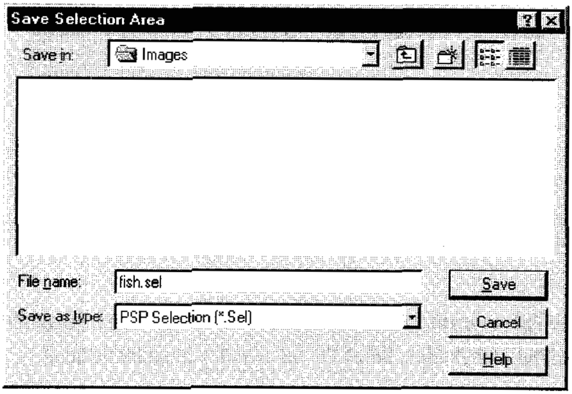
1 Choose Save to Disk from the Selections menu. The Windows browser opens

2 Navigate to the folder in which you want to save your selection.

3 Type a file name for the selection in the File Name box.

4 Click OK. The browser closes, and Paint Shop Pro saves the selection as a ".sel" file.

Save to Disk Dialog Box


Save Selection Area
Save
Cancel
Help

Save in: Images

File name: fish.sel

Save as type: PSP Selection (*.Sel)

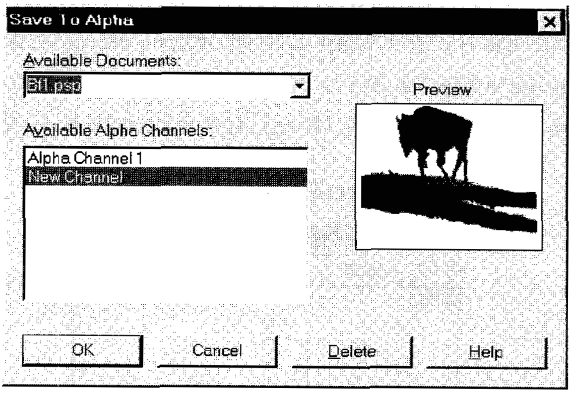
aving to the Alpha Channel

Use the alpha channel to save a selection with the image.

To save a selection to an alpha channel:

1 Choose Save to Alpha Channel from the Selections menu to open the Save to Alpha dialog box. The image's name appears in the Available Documents box and the Preview box displays the selection.

Save to Alpha Dialog Box


Save To Alpha
Preview
OK
Cancel
Delete
Help

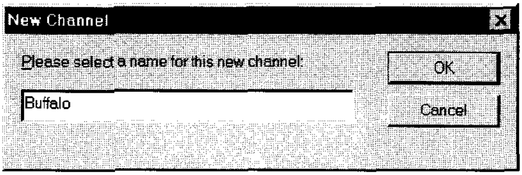
Available Documents: B11.psd

Available Alpha Channels:
Alpha Channel 1
New Channel

2 In the Available Alpha Channels list, double-click the New Channel selection.

3 When the New Channel box opens, type a name for the selection.

New Channel Dialog Box



Please select a name for this new channel:

Buffalo

4 Click OK. Paint Shop Pro saves the selection to the alpha channel, and both boxes close.

NOTE: After you have saved the selection, it is still selected in the image. Choos Select None from the Selections menu to deselect it.

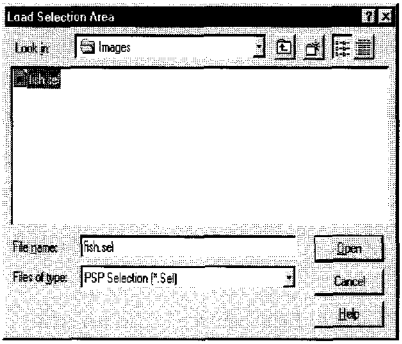
OADING A SELECTION

oading from a Disk

To load a selection from the hard disk or another disk connected to your computer:

1. If the image has more than one layer, make active the layer in which you want to place the selection.
2. From the Selections menu, choose Load from Disk. The Load Selection Area dialog box opens. Selections are saved in the ".sel" format. Paint Shop Pro automatically places this format in the file type box.
3. Navigate to the file you want to load or type its name in the File Name box.
4. If you navigated to the file in the previous step, click to highlight the file.
5. Click Open. The dialog box closes, and the active selection appears in the image.

Load Selection Area Dialog Box



Look in: Images

File name: fish.sel

Files of type: PSP Selection (*.Sel)

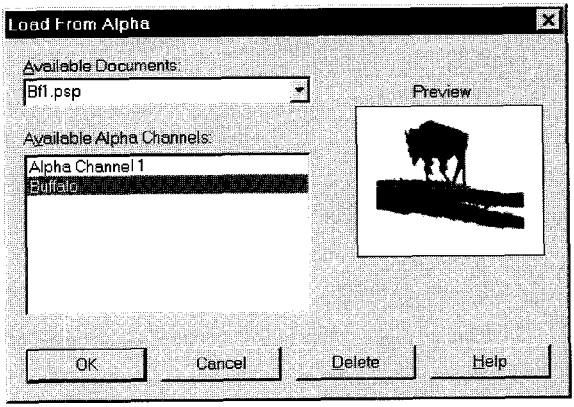
oading from the Alpha Channel

Both selections and masks can be saved to the alpha channel, so you can load a mask as a selection and a selection as a mask. You can load a selection from the alpha channel of the current active image or any other image open in the workspace.

To load a selection from the alpha channel:

1. If the image contains more than one layer, select the layer in which you want to place the selection. For help selecting a layer, see Chapter 9, "Working with Layers."
2. From the Selections menu, choose Load from Alpha Channel. The Load from Alpha dialog box opens. This dialog box is the same as the Save to Alpha dialog box.

Load from Alpha Dialog Box



Available Documents: Bf1.psp

Available Alpha Channels: Alpha Channel 1, Buffalo

3. To load a selection from the active image, leave the current image name in "Available Documents." To load a selection from another image, highlight it file name.
4. In the Available Alpha Channels list, click the selection or mask you want to load. A preview of it appears to the right of the list. You can view any selection or mask by clicking its name.
5. To delete any of the saved selections, select its name and click the delete button.
6. After you have chosen a selection, click OK. The dialog box closes, and the selection appears in the image.

CHAPTER

Working with Color

When you edit Paint Shop Pro images on the screen and then print them on paper, you use two different types, or models, of color. A computer screen uses transmitted light to produce color, while a printer's ink uses reflected light.

COLOR MODELS

Color models are methods of defining or describing color. Paint Shop Pro uses three color models:

- The RGB Model
- The CMYK Model
- The HSL Model

RGB Model

The RGB model, one of the Additive Color models, is used on computer monitors. It has three primary colors—red, green, and blue—that it creates by emitting light. All the colors on your screen are produced by combining these three colors in various proportions.

Primary colors are measured as a value from 0-255. The colors produced by combining the three primaries are a result of the relative strength (value) of each primary. For example, pure red has a red value of 255, a green value of 0, and a blue value of 0. Yellow has a red value of 255, a green value of 255, and a blue value of 0. An absence of the three primaries colors results in black; when all three have values of 255, they produce white. Red, green, and blue are referred as additive because they combine to produce white.

CMYK Model

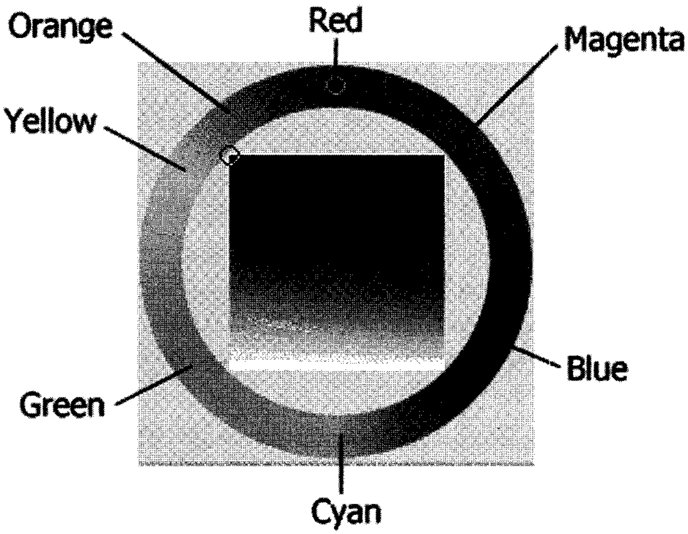
The CMYK model, one of the Subtractive Color models, is based on light being absorbed and reflected by paint and ink. This model is often used when printing The primary colors, cyan, magenta, and yellow, are mixed to produce the other colors. When all three are combined, they produce black. Because impurities in the ink make it difficult to produce a true black, a fourth color, black (the K), is added when printing.

ISL Model

The HSL model uses a more intuitive approach by defining color in terms of hue saturation, and lightness, which is how we perceive color. The three components are measured on a scale from 0 to 255.

Hue distinguishes the various colors such as green and blue. In the Paint Shop Pro Color dialog box, the hues are arranged around the Color wheel and assigned values from 0-255. The color wheel is like a clock with 256 hours (255 plus the 0) that runs backwards. At the top is red at 0. Moving counter-clockwise yellow is at 43; green is at 85; cyan is directly opposite red at 128; blue is at 170 (directly opposite yellow); magenta is at 212 (directly opposite green).

Paint Shop Pro Color Wheel



Lightness is the perceived amount or intensity of light. A lightness value of 0 on the scale is total darkness, or black. A value of 255 on the scale is total lightness, or white. At 50% lightness (127 on the scale), a hue is considered pure. A hue's saturation and lightness values are modified using the Saturation/Lightness box inside the color wheel.

Saturation is the strength of a hue, or the amount of grey it contains. A color referred to as vivid usually has a high saturation level (not much grey). As the saturation decreases, the amount of grey increases.

The removal of hue from an image is called desaturation. You can desaturate an image by choosing the Grey Scale command in the Colors menu. In Paint Shop Pro, a Grey Scale image refers to a particular type of image—one that contains 256 levels of grey, or lightness.

The HSL and RGB models are measured using the same 0-255 scale. In the RGB model, 0 represents an absence of color; in the HSL model, 0 represents an absence of saturation and lightness. In the RGB model, 255 represents a color at 100% strength; in the HSL model, saturation of 255 represents total saturation and lightness at 255 is total light. At a saturation of 255, a hue contains no grey. At a saturation of 0, there is only grey.

Because a computer screen uses light to display color, Paint Shop Pro offers a variety of RGB and HSL color correction functions. These functions are describe in the next chapter. Paint Shop Pro will also convert an image into CMYK for printing and editing the four color channels.

OLOR CHANNELS

Images are organized into channels, or planes, of colors. An RGB image has thre channels, one for each of the three primary colors; a CMYK image has four. Printers split color images into the four channels, create a separate plate for each and produce pictures by applying a layer for each color. Paint Shop Pro will convert an image into CMYK for printing and producing CMYK separations. It will also split an image into the four CMYK (or three RGB and HSL) channels so you can edit them individually.

Paint Shop Pro images can also contain alpha channels. An alpha channel does not store color information; it stores lightness values—the 256 levels of lightness mentioned above in the HSL description. When you save a selection or mask to an alpha channel, Paint Shop Pro saves the information as a grey scale image.

OLOR DEPTH

Color depth, often called bit depth, refers to the number of colors a pixel can display. As the bit depth increases, the number of colors a pixel (and its image) can display increases. A 1-bit image can display 2 colors; an 8-bit image can display 256; a 24-bit image can display 16.7 million. The term grey scale image i used to indicate an 8-bit image with a palette that goes from black to white. A black and white image of any other bit depth is not a grey scale image.

Many of the color adjustment commands and the effects of the painting tools in Paint Shop Pro are only available for 24-bit and grey scale images. To use them, increase the image depth. After you have finished, return the image to its origina bit depth.

iewing Image Color Depth

To view the color depth (bit depth) of the image:

1 Choose Image Information from the View menu. The Current Image Information dialog box opens.

Image Panel

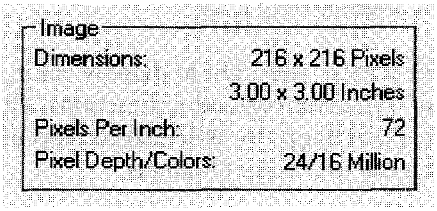


Image
Dimensions: 216 x 216 Pixels
3.00 x 3.00 Inches
Pixels Per Inch: 72
Pixel Depth/Colors: 24/16 Million

2 In the Image panel, look at the Pixel Depth/Colors line. If you are using the painting tools, the Pixel Depth should be at least 8-bits and the colors should be at least 256.

3 Click OK to close the box.

4 If the image pixel depth is too low, increase the color depth. For help increasing the color depth of the image, see Chapter 7, "Making Color Adjustments."

iewing Monitor Color Depth

To view color depth of the monitor:

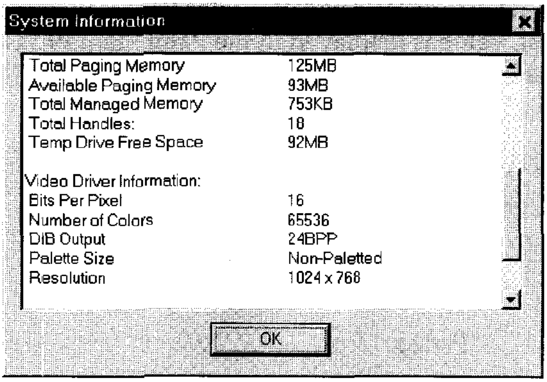
1 Choose About Paint Shop Pro from the Help menu. The splash screen appears.

2 Click the System Info button. The System Information list box opens.

3 Scroll to the Video Driver Information section, where the color depth is listed.

4 If you need to adjust your monitor settings, consult the Windows online Help.

System Information List Box



Total Paging Memory	125MB
Available Paging Memory	93MB
Total Managed Memory	753KB
Total Handles:	18
Temp Drive Free Space	92MB
Video Driver Information:	
Bits Per Pixel	16
Number of Colors	65536
DIB Output	24BPP
Palette Size	Non-Paletted
Resolution	1024 x 768

OLOR PALETTE

The colors you are using as you paint and draw are called active colors. An image has two active colors – the foreground and background colors. They are displayed on the Color palette.

View/Hide Color Palette Button

To view/hide the Color palette, do one of the following:

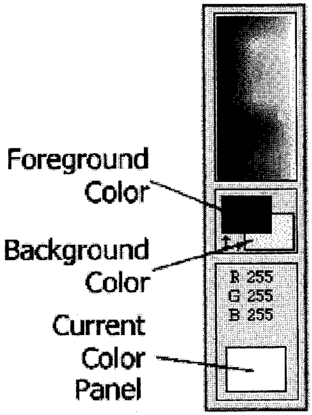
- Press <C>.
- Click the View/Hide Color Palette button on the toolbar.
- From the View menu, choose Toolbars, and select or uncheck the "Color Palette" check box.

The Color palette, which contains the colors you apply, is divided into three areas. At the top is the Select Color panel, where you select active colors. While the appearance of this panel never changes, the number of colors actually available to you varies with the number of colors (bit depth) in your image. Whenever the cursor moves over this panel, it becomes the Dropper to indicate i is selecting a color.

Below this is the Active Colors panel, which displays the background and foreground color and provides access to the Color and Edit Palette dialog boxes. The foreground color fills the box at the left, while the background color fills the box at the right. To reverse the colors, click the double-headed arrow.

At the bottom is the Current Color Information panel. It provides a preview when you select active colors from the Select Color panel or are using the Dropper. As you move the Dropper in the Select Color panel, the box displays the color under the Dropper and above the box the color's RGB or HSL values appear. When no color is selected, the color box displays an "X." Choose whether the RGB or HSL value is displayed in the Paint Shop Pro General Preferences dialog box. For help selecting preferences, see Chapter 12, "Configuring Paint Shop Pro."

Color Palette



ELECTING ACTIVE COLORS

You can select active colors from

- The Color Palette
- The Color Dialog Box
- The Select Color from Palette dialog box
- The Image

When you select an active color from the Color palette's Select Color panel, Paint Shop Pro chooses the color in the panel that is closest to the image's available colors. If the image has 16 million colors, the new color will match the color in th panel. To select specific hue, saturation, and lightness, use the Color dialog box. Click either the foreground or background color box to access it.

If an image has 256 or fewer colors (sometimes referred to as a paletted image), its colors are contained in an image palette. You can change a color in the palette but not increase the number of colors. When you pick a color from the Select Color panel, you are limited to the colors in the palette. Paint Shop Pro uses the color from the palette that is the closest match to the color you picked. You may find it easier to select colors directly from the palette. To do this, click either the foreground or background color box to access the Select Color from Palette dialog box.

rom the Color Palette

To select an active color from the Color palette:

1. Place the cursor over the Select Color panel. The cursor changes into the Dropper, and the color underneath appears in the current color information area.
2. Move the cursor over the color you want to select.
3. Click to select an active color:
   - Left-click to select the foreground color.
   - Right-click to select the background color.

The selected color appears in the appropriate color box.

rom the Select Color from Palette Dialog Box

With images of 256 colors or fewer, clicking the foreground or background color box lets you select a color from the image's palette.

To select an active color from the Select Color from Palette dialog box:

1. Click the active foreground or background color box, depending on which color you are selecting:
   - Click the foreground color box to select a new foreground color.
   - Click the background color box to select a new background color.

   The Select Color from Palette dialog box opens.
2. To sort the palette colors, choose a sorting method from the Sort order box a the top of the palette. Your choices are Palette Order, Luminance, and Hue. (You can select a color without sorting the palette.)
3. Click a color square to select its color.
4. Click OK. The dialog box closes, and the new color fills the appropriate active color box.

rom the Jasc Color Dialog Box

In a 24-bit image (one with 16 million colors), clicking the foreground or background color box opens the Jasc or Windows Color dialog box, depending on the preferences setting. Select a color from your system's entire color spectru in either dialog box.

- Click the foreground color box to select a new foreground color.
- Click the background color box to select a new background color.

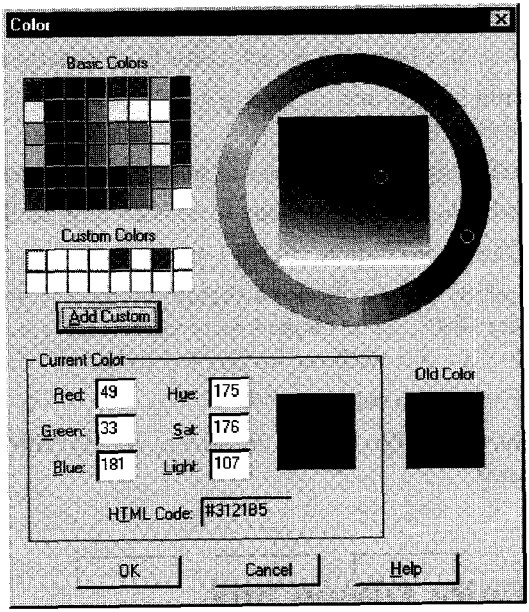
Selecting from the Basic Colors

There are forty-eight basic colors that are preset and cannot be modified. The firs column displays the three primary additive and three primary subtractive colors The last column displays six lightness levels (grey levels). In between are the additive and subtractive primaries at increasing lightness levels from left to right

To select a basic color:

1 Click the color's square in the upper-left corner of the dialog box. The selected color, its RGB and HSL values, and its HTML code appear in the Current Color panel.
2 Click the OK button. The dialog box closes and the new color appears in the appropriate box of the Active Color panel.

Color Dialog Box



Red: 49
Green: 33
Blue: 181
Hue: 175
Sat: 176
Light: 107
HTML Code: #3121B5

Selecting from the Color Wheel

Selecting a color from the Color wheel is a two step process:

1 Select a hue from the Color wheel.
2 Adjust the hue's saturation and lightness in the Saturation/Lightness box.

Selecting the Hue

Click the Color Wheel or drag the selection ring to select a hue. As the dropper moves around the wheel, the values in the Current Color panel update. This panel displays the RGB and HSL values, the color, and its HTML number. The HTML number appears a text format that you can copy and paste directly into your HTML code.

Adjusting the Saturation/Lightness

Adjust the saturation and lightness of the hue using the Saturation/Lightness bo inside the Color wheel.

To adjust the selected hue:

1. Click anywhere in the Saturation/Lightness box or drag the selection ring to change the saturation and lightness:
    - The saturation increases as you move from the left to the right.
    - The lightness increases as you move from the top to the bottom.
2. The selected color, its RGB and HSL values, and its HTML code (in the Current Color panel) update as you move the Dropper.
3. Click the OK button. The dialog box closes and the new color appears in the appropriate box of the Active Color panel.

Selecting from the Image

To select a color from the image while the Color dialog box is open, move the dropper over the image and click. The selected color, its RGB and HSL values, and its HTML code appear in the Current Color panel.

Creating a Custom Color

There are sixteen custom color squares that you can fill with colors of your choice. Fill an empty square or replace a Custom Color square with a new color.

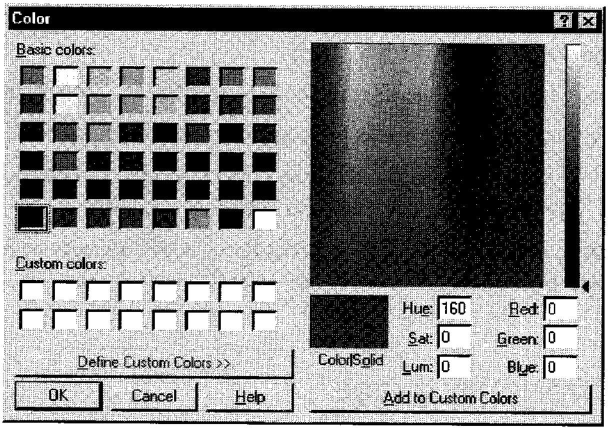
To select a custom color:

1. Select a color by left-clicking the Color Wheel, the Saturation/Lightness bo the Current Color box, the Old Color box, or a Basic color.
2. Do either of the following:
    - Right-click and drag the cursor to any Custom Color square and release the mouse button.
    - Click the Add Custom button.
3. Click the OK button. The dialog box closes and the new color appears in th appropriate box of the Active Color panel.

rom the Windows Color Dialog Box

When you need to use the Windows color picker, you can have Paint Shop Pro open the Windows Color dialog box rather than the Jasc Color dialog box. Select this option in the Dialogs and Palette tab of the General Program Preferences dialog box. For help setting preferences, see Chapter 12, "Configuring Paint Shop Pro."

Windows Color Dialog Box



Color
Basic colors:
Custom colors:
Define Custom Colors >>
OK
Cancel
Help
Color|Solid
Add to Custom Colors

Hue: 160
Sat: 0
Lum: 0
Red: 0
Green: 0
Blue: 0

Selecting a Basic Color

There are 48 basic colors that are preset and can not be modified.

To select a basic color:

1. Click the square in the upper left corner of the dialog box that matched the color.
2. Click the OK button.

Selecting a Custom Color

To select a custom color:

1. Click the square in the lower left corner of the dialog box that matches the color.
2. Click the OK button.

Changing a Custom Color

To change a custom color:

1. Click the square of the color in the lower left corner of the dialog box.
2. Select a full spectrum color. (See below.)
3. Click the Add to Custom Colors button.

Selecting a Full Spectrum Color

Crosshair and Pointer Controls

You select a full spectrum color by clicking or dragging two controls:

- The Crosshair control in the large color spectrum box
- The Pointer control in the smaller Color Ribbon box.

The controls affect the contents of the Color/Solid Display box. The Crosshair control sets the hue and saturation; the Pointer control sets the luminance.

Solid/Color Display Box

Paint Shop Pro selects the hue in the Color side of the Color/Solid display box. I the two sides display different colors and you prefer the hue in the Solid side, double-click the Solid side. It will change to match the hue in the Solid side.

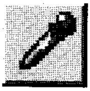
rom the Image

Use the Dropper tool to select an active color from the image. Selecting from the image lets you match colors exactly.

You can activate the Dropper tool in two ways:

1. Click the Dropper tool on the Tools palette. If you have tool preferences set t standard, the cursor changes to the Dropper. If you have tool preferences se to precise, the cursor changes to the precision cursor.
2. While using a painting or drawing tool, press the <Ctrl> key. The cursor changes to the Dropper. Keep the <Ctrl> key pressed in until after you have finished selecting a color.

Dropper Tool



To select a color using the Dropper tool:

1. Move the Dropper over the color you want to select.
2. Click to select an active color:
    - Left-click to select the foreground color.
    - Right-click to select the background color.

The selected color appears in the appropriate active color box.

eversing Foreground and Background Colors

To reverse the foreground and background colors, click the color switcher in the Active Colors panel of the Colors palette.

MAGE PALETTE

If an image has from 16 to 256 colors, it contains an image palette. You can edit this palette, save it, and load it into other color images. You can also make any palette color or the background color transparent. This makes producing transparent GIFs and other web images an easy process.

diting an Image Palette

Edit the active image's palette in the Edit Palette dialog box. To open the dialog box, choose Edit Palette from the Colors menu.

Sorting the Colors

There are three methods for sorting an image palette. Use whichever one you find most convenient; sorting the palette has no effect on the image. To sort the palette, select a method from the drop-down list at the top.

Sorting by Palette Order

Arranges the colors in rows by palette numbers, from 0 at the upper left to 255 at the lower right.

Sorting by Luminance

Arranges the colors by their level of lightness. Lighter colors are at the top; darker colors are at the bottom.

Sorting by Hue

Arranges the colors according to their location on the color wheel.

Changing a Color

You can replace the colors of an image palette by choosing new ones in the Color dialog box. For information on using the Color dialog box, see the "From the Jasc Color dialog box" or the "From the Windows Color dialog box" section above.

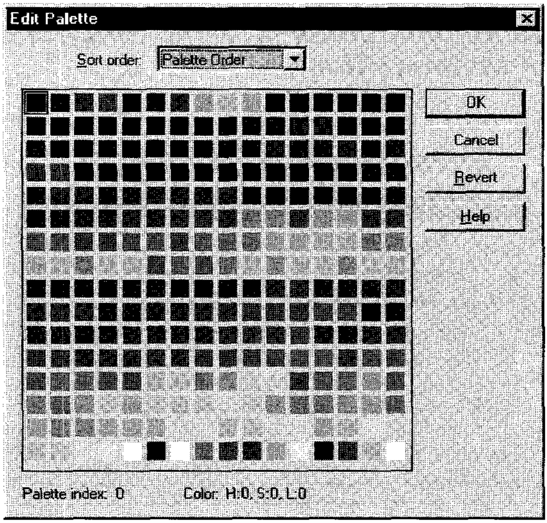
Saving the Changes

To save the edited palette and close the dialog box, click the OK button.

Abandoning the Changes

To return the palette to its original state and undo any changes to its colors without closing the dialog box, click the Revert button.

Edit Palette Dialog Box



Sort order: Palette Order

Palette index: 0

Color: H:0, S:0, L:0

Assigning a Transparent Color

Paint Shop Pro lets you assign a transparent value to any color in the image palette. This is useful when working with some file formats, such as GIF and PNG.

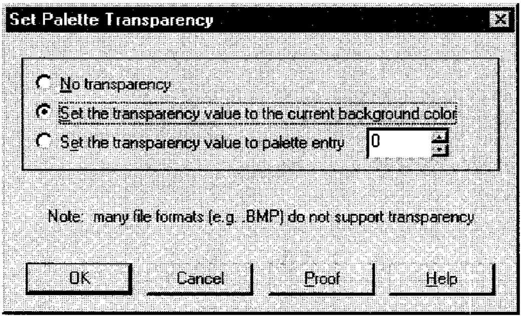
To assign a transparent color:

1. Determine the color you want to make transparent by doing one of the following:
   - Selecting the color as the background color.
   - Locating the color's palette number from the image palette.
2. Choose Set Palette Transparency from the Colors menu. The Set Palette Transparency dialog box opens.

3 Set the transparency by selecting the appropriate option:
   - To undo the transparency of a color, select No transparency.
   - To assign the background color, select Set transparency value to the current background color.
   - To assign a color by palette number, select the number from the palette entry box.
4 To view the new selection in the image, click the Proof button. Paint Shop Pr removes the color from the image.
5 Click OK.

NOTE: A transparent color remains visible in the image until you choose the Vie Palette Transparency command.

Set Palette Transparency Dialog Box



Set Palette Transparency

○ No transparency
● Set the transparency value to the current background color
○ Set the transparency value to palette entry 0

Note: many file formats (e.g. .BMP) do not support transparency

iewing the Transparent Effect

To view the effect of assigning a color a transparent value, choose View Palette Transparency from the Colors menu. Paint Shop Pro removes the color from the image.

aving an Image Palette

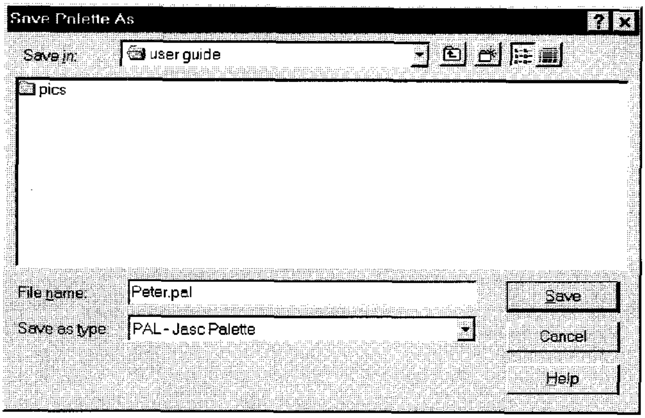
To save an image palette:

1 Choose Save Palette from the Colors menu. The Save Palette As dialog box opens.
2 Navigate to the folder where you want to save the palette.
3 Type a name for the palette in the File Name text box. Paint Shop Pro will automatically add the file extension.

4 Select a palette format from the File Type box. The default is the Jasc format. If you want to use the palette with an application other than Paint Shop Pro, save the palette in the Microsoft format.

5 Click Save.

Save Palette As Dialog Box



Save in: user guide

File name: Peter.pal

Save as type: PAL - Jasc Palette

oading an Image Palette

You can load palettes into images with 16 or more colors.

To apply a palette:

1 From the Colors menu, choose Load palette. The Load Palette dialog box opens.

2 Navigate to and open the folder where you saved the palette.

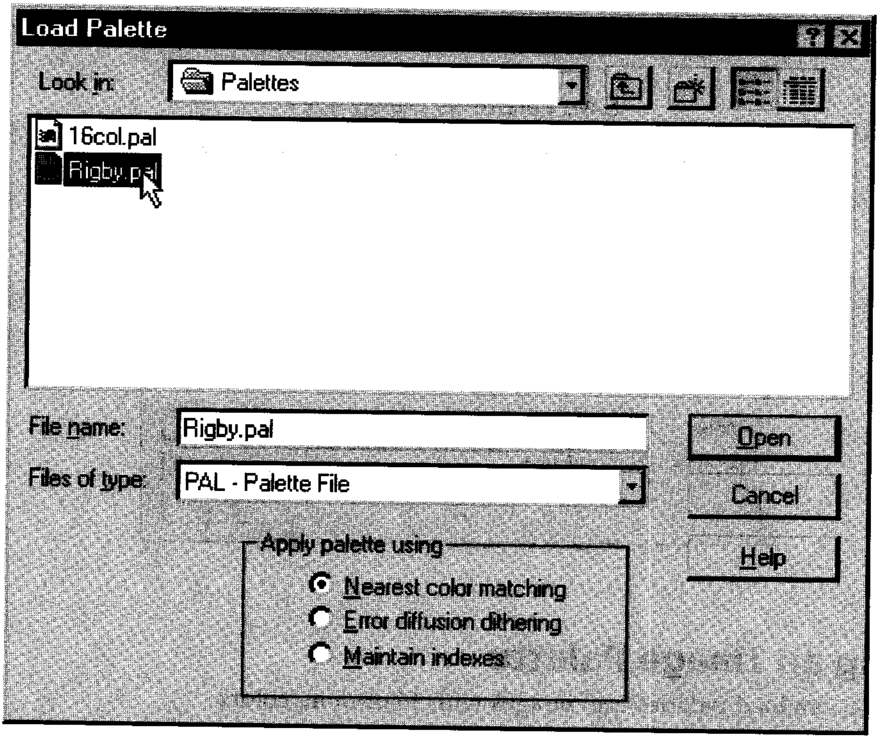
3 Highlight the palette.

4 Select one of the three method for loading the palette:

- Nearest Color Matching - Changes each color in the image to the color ir the palette that is the closest match.
- Error Diffusion Dithering - Attempts to maintain the image's appearanc by dithering colors that are not in the palette. Dithering means to intermingle pixels of two or more colors to simulate a color that is not available.
- Maintain Indexes - Assigns each color in the palette a sequential index number, does the same for the colors in the image, and then changes eac color in the image to the like-numbered color in the palette.

5 Click Open.

Load Palette Dialog Box



Load Palette
Open
Cancel
Help

Look in: Palettes

16col.pal

Rigby.pal

File name: Rigby.pal

Files of type: PAL - Palette File

Apply palette using

● Nearest color matching

○ Error diffusion dithering

○ Maintain indexes

CHAPTER 7

Making Color Adjustments

DJUSTING YOUR MONITOR GAMMA

If you are producing an image for printing, adjust the monitor gamma or enable color management (Windows 98 users) before color correcting the images. This will ensure that the on-screen and printed image match as closely as possible and that the colors will be consistent from image to image. Note that the Monitor Gamma Adjustment is not the same as the Gamma Correction command. The former adjusts the monitor; the latter adjusts the image. For help with color management or monitor gamma adjustment, see Chapter 12, "Configuring Paint Shop Pro."

If you are making color adjustments for an image for the web, you should not adjust the monitor's gamma or enable color management. Most computer users don't adjust their monitor's gamma, so the color correction you produce on your adjusted monitor will appear distorted on their unadjusted ones.

SING THE HISTOGRAM

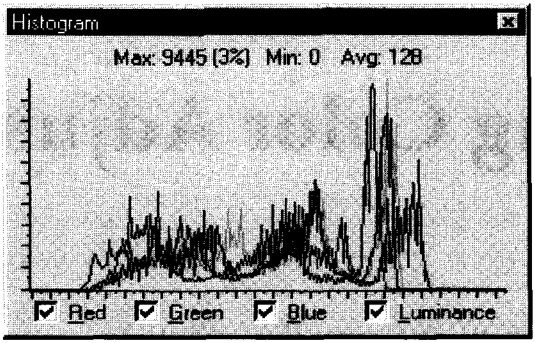
hat is a Histogram?

A histogram is a graph of the distribution of RGB and/or luminance values in an image. Each of the four values appear on the horizontal axis from dark to light (left to right). The vertical axis indicates the number of pixels of that value at each point. At a point where there are many pixels of a value, the corresponding line spikes; where there are no pixels, it lies at the bottom of the graph.

Hide/View
Histogram
Window Button

To see the distribution of the red, green, blue, or lightness value, select its check box at the bottom of the histogram window. At the top of the window, Paint Shop Pro displays the number of pixels that match the histogram's maximum and minimum, and then displays the average value.

Histogram



Max: 9445 (3%) Min: 0 Avg: 128

☑ Red ☑ Green ☑ Blue ☑ Luminance

Vhy Use a Histogram?

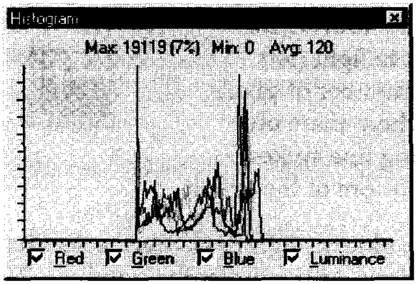
The histogram can help you produce high-quality printed pictures by showing you two important items:

- Whether the image contains enough detail for you to make a good correctio
- Where the image needs correction.

Before you begin correcting a photograph or a scan, look at the histogram to see if there is enough detail and contrast for you to correct the image successfully; if the lightness graph is bunched into one area, there probably isn't. Find another picture or make a new scan.

If the picture does contain enough detail, the histogram can show you where the image needs adjustment. A fairly even distribution of the graph indicates an image with a balanced composition. If too much of the graph is at the right side of the x axis, you need to reduce the lightness. If too much is at the left, you nee to increase it. If the lines are not spread out enough, you need to increase the contrast.

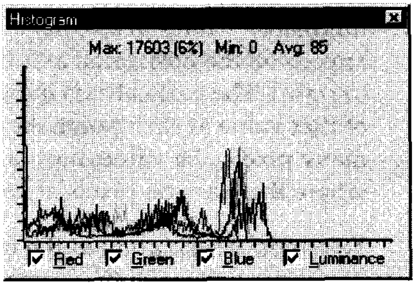
Not Enough Detail



Max: 19119 (7%) Min: 0 Avg: 120

☑ Red ☑ Green ☑ Blue ☑ Luminance

Need to Lighten Image



Max: 17603 (6%) Min: 0 Avg: 85

☑ Red ☑ Green ☑ Blue ☑ Luminance

istogram Commands

The two histogram commands change the shape of the histogram, thereby altering the image. The other adjustment commands described in this chapter shift the histogram without changing its shape.

NOTES: For the histogram commands to work on a selection, the image must be a grey scale or 24-bit color image. With 8-bit (256 colors), 4-bit (16 colors), and 1-bit (2 colors) images, the commands affect the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

Equalize Command

The Equalize Histogram command smoothes out the image or selection's histogram so that it is more evenly distributed across the spectrum. The result is a tempering or averaging of the image or selection's brightness.

To equalize the histogram, choose Equalize from the Histogram Functions command in the Colors menu.

Stretch Command

If the histogram does not cover the entire spectrum, the image does not include both very dark or black and very light or white areas. The Stretch Histogram command adjusts it ("pulls it at the ends") so the image's luminance covers the entire spectrum.

To stretch the histogram, choose Stretch from the Histogram Functions command in the Colors menu.

DJUSTING COLOR

Paint Shop Pro provides several commands in the Colors menu for adjusting color. Use them to make color corrections, improve the results of faulty lighting, and create special effects in photographs.

Before correcting an image, first decide what is wrong. Perhaps the image has a yellowish cast that you want to remove. Use the Hue/Saturation/Lightness command to remove it. If you want to bring out the detail in a dark area, use the Highlight/Midtone/Shadow command.

You'll notice that when you close a dialog box, the sliders remain in the final position. This lets you make adjustments to multiple images with the same problem quickly and easily.

NOTES: For the Adjust Color menu commands to work on a selection, the imag must be a grey scale or 24-bit color image. With 8-bit (256 colors), 4-b (16 colors), and 1-bit (2 colors) images, the commands affect the entir image.

To limit the color adjustment to a selection, make the selection before choosing the command.

Jsing the Color Adjustment Commands

Brightness/Contrast Command

The Brightness/Contrast command brightens or darkens an image or selection and the range of light (the contrast) within it. The Brightness control is a quick way to adjust everything at once, such as when you have a picture that is too dark after being scanned. Contrast increases the difference in shading between areas. The brightness and contrast values are expressed as percentages, with 0% being the current setting.

Adjust
Brightness/
Contrast Button

NOTES: For the Brightness/Contrast command to work on a selection, the imag must be a grey scale or 24-bit color image. With lower color depths, th command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To adjust the brightness and/or contrast:

1 From the Colors menu, choose Brightness/Contrast in the Adjust submenu. The Brightness/Contrast dialog box opens.

2 The preview on the left shows the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

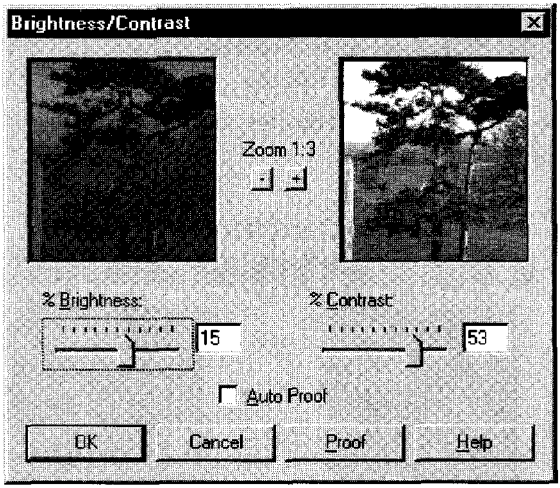
3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 To view the image's current settings, move the sliders to the midpoint. (Botl boxes will display "0.")

5 Move the Brightness slider to the right to increase brightness and to the left to decrease brightness. At -100%, the image is solid black. At +100%, the image is solid white.

6. Move the Contrast slider to the left to increase contrast and to the right to decrease it. At -100%, the image has no contrast, so it is solid grey.
7. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
8. To apply the changes, click OK.

Brightness/Contrast Dialog Box



% Brightness: 15

% Contrast: 53

☐ Auto Proof

Gamma Correction Command

Gamma Correction Button

The Gamma Correction command lets you adjust red, green and blue to compensate for the way the monitor phosphors display them. (The phosphors produce the colors on the monitor.) The gamma curve was designed to be the opposite of how the monitor phosphors operate, thereby canceling the distortion. For example, if the monitor phosphors produce a curve to the right, you drag the sliders to produce a curve to the left. Combining them produces a straight line.

The command may also be used to improve the appearance of an image by smoothly adjusting the midtones without changing the shadows or highlights. By changing colors individually, you can also adjust the color balance.

NOTES: For the Gamma Correction command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To adjust the gamma of an image:

1 From the Colors menu, choose Gamma Correction in the Adjust submenu. The Gamma Correction dialog box opens.

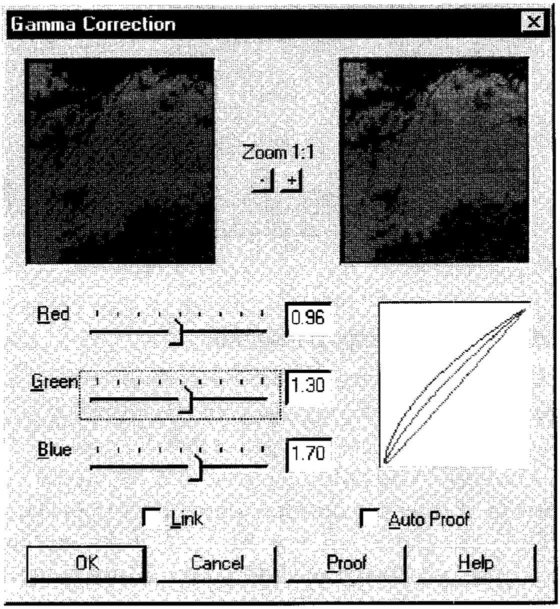
2 The preview on the left shows the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 By default, the sliders are linked so they move in unison. Clear the Link check box to drag them individually.

5 To view the image's current settings, move the sliders to the midpoint. (Botl boxes will display "1.00.")

Gamma Correction Dialog Box



Red 0.96

Green 1.30

Blue 1.70

☐ Link

☐ Auto Proof

6 The Gamma Curve graph to the right of the sliders displays the three color The right side of the graph represents the highlights, the left side represent the shadows. At 1.00, the lines of each color form a straight line, indicating change. As you move the slider of a color, it forms a curve.

7 Drag the slider to move the majority of red, green and blue pixels to chang the shape of the curve. Dragging to the right pushes more pixels to a highe lightness value so the line on the graph curves toward the left. Dragging to the left has the opposite effect. Notice that there is always some light at the

darkest level of the sliders and some dark at the lightest because each line extends across the graph.

8 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

9 To apply the changes, click OK.

Highlight/ Midtone/ Shadow Command

The Highlight/Midtone/Shadow command adjusts the dark, middle, and light values separately. Use it to emphasize highlights or shadows, or to lighten or darken an image or selection's mid-range colors. The values are expressed as percentages. The Highlight slider at 100%, Midtone at 50%, and Shadow at 0% represent the image's current settings.

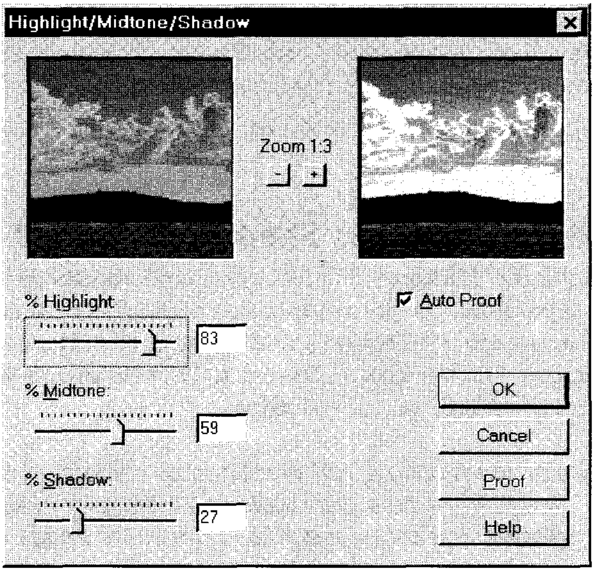
NOTES: For the Highlight/Midtone/Shadow command to work on a selection, th image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To adjust the highlight, midtone, and shadow:

1. From the Colors menu, choose Highlight/Midtone/Shadow in the Adjust submenu. The Highlight/Midtone/Shadow dialog box opens.
2. The preview on the left displays the current image. The preview on the rig updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. The Highlight slider add lightness proportionally. As the slider moves to th left, it lightens increasingly darker pixels. This adds highlight to more of th image.
5. Move the Midtone slider to shift the middle quarter of the light scale up or down. The areas of midtone lighten as the slider moves right and darken a moves left.
6. The Shadow slider does the opposite of the highlight slider—moving it to t right removes lightness proportionally. Lighter pixels are darkened more.
7. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
8. To apply the changes, click OK.

Highlight/Midtone/Shadow Dialog Box



% Highlight: 83

% Midtone: 59

% Shadow: 27

☑ Auto Proof

Hue/Saturation/Lightness Command

As mentioned in the previous chapter, one way of describing color is hue, saturation, and lightness. Hue refers to the color's tint, saturation to the hue's purity, and lightness to the color's brightness. Use the Hue/Saturation/Lightness command to modify these values for an entire image or selection.

NOTES: For the Hue/Saturation/Lightness command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To adjust the hue, saturation, and/or lightness:

1 From the Colors menu, choose Hue/Saturation/Lightness in the Adjust submenu. The Hue/Saturation/Lightness dialog box opens.

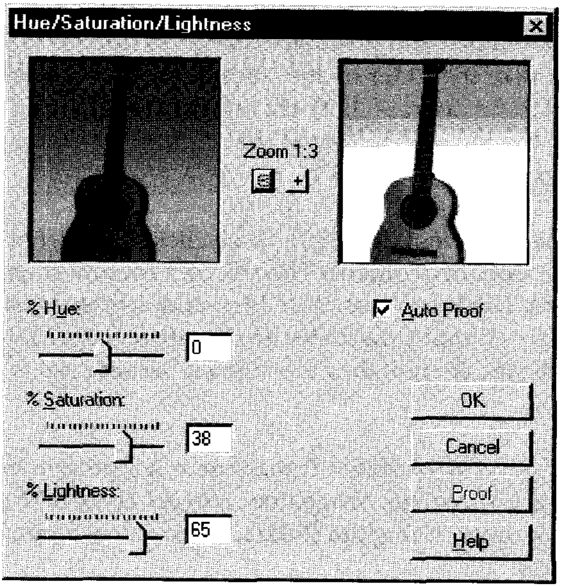
2 The preview on the left displays the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 To view the image's current settings, drag the sliders to the midpoint. (Both boxes will display "0.")

5 Move the Hue slider to the left and right to shift all the colors in the image around the color wheel. This slider measures the color wheel in percentage. The +100% and -100% return the color to its original position.

Hue/Saturation/Lightness Dialog Box



Hue/Saturation/Lightness

% Hue: 0

% Saturation: 38

% Lightness: 65

☑ Auto Proof

6 Drag the Saturation slider to the left to decrease saturation and to the right t increase it. At -100%, the color is removed, and only grey remains.

7 Move the Lightness slider to increase and decrease the lightness in the imag A -100% setting produces pure black. A +100% setting produces pure white in those colors with a lightness of 50% and above.

8 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

9 To apply the changes, click OK.

Hue Map Command

Use the Hue Map command to adjust hues individually in an image. In the Hue Shift area, the color wheel is represented in both the colored boxes and the slide columns. Think of the color wheel as being flattened out across the top of the area. The 10 boxes across the top show hues at 10 positions around the circle, starting with red on the left at 0°. These hues never change; neither do their degrees. They are the reference points and represent the default positions on the color wheel (and on each column underneath) of the sliders.

The 10 slider columns also represents the color circle flattened out. Here red is located at the top at 0° and again at the bottom at 359° (the wheel coming around to its starting point).

The lower colored box and position (in degrees from 0° to 359°) indicate the current position of the slider on the column (and color wheel). The hue in the box and the position (in degrees) both change as the slider moves. If you drag a slider all the way to the top and bottom of the column, the box turns red both times and the position goes from 0° to 359°.

When you open the Hue Map dialog box, click the Reset button. This returns the sliders to their default positions. They make a smooth slope from the upper left tc the lower right. The hue boxes, the slider, and degrees (position) of each column are aligned. For example, the slider on the left is placed at the top of the column at 0° and the boxes are red; they are aligned because red is at 0° on the color wheel.

To change a hue, drag its slider. If that hue is not present in the image, nothing changes. If it is present, the image hue changes to the new color of its corresponding slider. Using the sliders, you can make precise changes to individual hues.

NOTES: For the Hue Map command to work on a selection, the image must a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To use the Hue Map command:

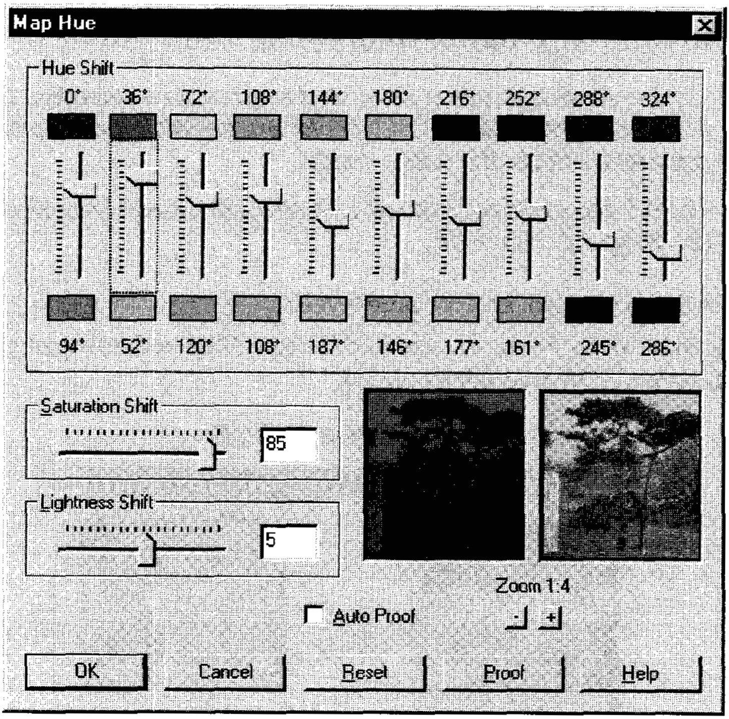
1 From the Colors menu, choose Hue Map in the Adjust submenu. The Map Hue dialog box opens.

2 The preview on the left displays the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag the image to bring other areas of it into view.

3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 Click the Reset button to return the sliders to their default positions. The colors and values on either side of each slider match and they correspond to the slider's position.

Hue Map Dialog Box



Hue Shift: 0° 36° 72° 108° 144° 180° 216° 252° 288° 324°
94° 52° 120° 108° 187° 146° 177° 161° 245° 286°

Saturation Shift 85

Lightness Shift 5

☐ Auto Proof

5 Move the sliders of each column to shift the hues individually. If a hue is no represented in the image, nothing happens.

6 Drag the Saturation slider to the left to decrease saturation and to the right t increase it. At -100%, the image becomes a grey scale image.

7 Drag the Lightness slider to increase and decrease the lightness in the imag A -100% setting produces pure black. A +100% setting produces pure white

8 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

9 To apply the changes, click OK.

Red/Green/Blue Command

Adjust RGB Button

The Red/Green/Blue command changes the levels of red, green, and blue in an image or selection. As mentioned above, computer monitors create colors by combining red, green, and blue, the three primary colors for projected light. The red, green, and blue values are represented as percentages, with 0% being the current setting.

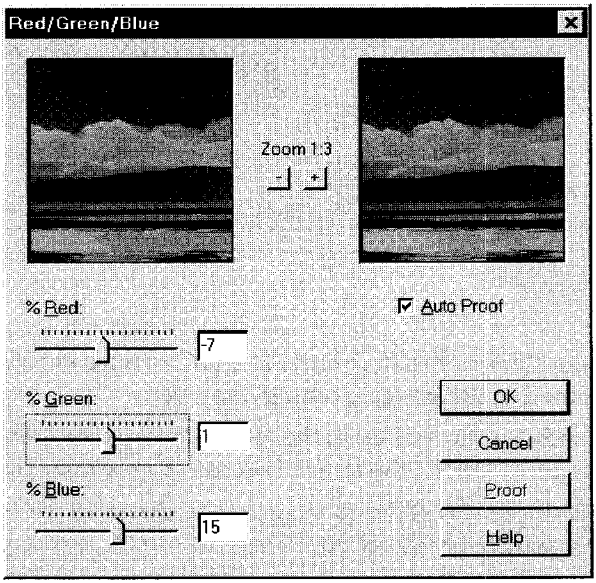
NOTES: For the Red/Green/Blue command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To adjust the red, green, and/or blue levels:

1 From the Colors menu, choose Red/Green/Blue in the Adjust submenu. The Red/Green/Blue dialog box opens.

Red/Green/Blue Dialog Box


Red/Green/Blue

% Red: -7

% Green: 1

% Blue: 15

☑ Auto Proof

2 The preview on the left displays the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

3 To update the original image as you change the settings, select the "Auto Proof" check box.

4. To view the image's current settings, move the sliders to the midpoint. (The boxes will display "0.")
5. Move the Red slider to increase and decrease the amount of red in the image
6. Move the Green slider to increase and decrease the amount of green in the image.
7. Move the Blue slider to increase and decrease the amount of blue in the image.
8. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
9. To apply the changes, click OK.

Colorize Command

The Colorize command converts an image or selection to a uniform hue and saturation while retaining its lightness. You can use it to create sepia tones (the brown seen in old photographs) and other single-color effects.

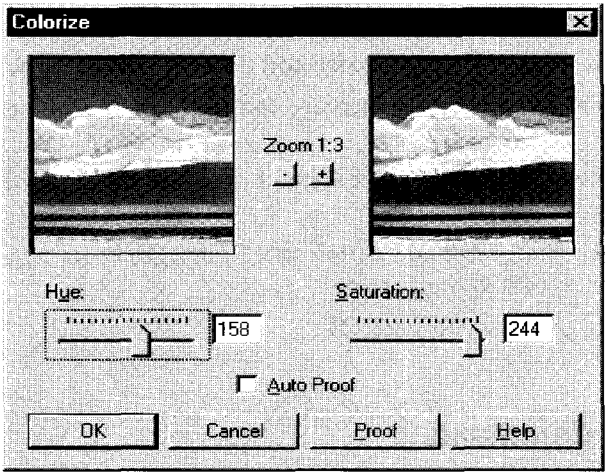
NOTES: For the Colorize command to work on a selection, the image must a gre scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To use the Colorize command:

1. Choose Colorize from the Colors menu. The Colorize dialog box opens.
2. The preview on the left displays the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Move the Hue slider to the left and right to shift all the colors in the image around the color wheel. 0 is pure red; 43 is pure yellow; 85 is green; 128 is cyan; 170 is blue; 312 is magenta; 255 is red again.
5. Move the Saturation slider to the left to decrease saturation and to the right to increase it. At 0, the color is removed.

Colorize Dialog Box



Hue: 158

Saturation: 244

☐ Auto Proof

6 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

7 To apply the changes, click OK.

Grey Scale Command

The Grey Scale command removes the colors from an image and replaces them with greys matching their luminance values. The effect is similar to a black-and-white photograph. Because a grey scale image can only display 256 shades of grey, converting a 16 million color image to grey scale automatically reduces it to 256 colors.

To convert an image, choose Grey Scale from the Colors menu.

NOTE: To limit the color adjustment to a selection, make the selection before choosing the command.

Negative Image Command

The Negative Image command replaces the color value of each color with its opposite on the 0-255 scale. The effect is similar to a photographic negative, and the function can be used to create a positive image from a scanned negative.

To convert an image, choose Negative Image from the Colors menu.

NOTES: For the Negative Image command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

Posterize Command

The Posterize command (pronounced with a long "O") reduces the number of bits per color channel. As the bits per channel decrease, the number of levels of lightness a color can display decrease. This results in a flatter-looking image wit a pronounced choppiness in the gradients. For more information on color depth, please see the "Color Depth" section below.

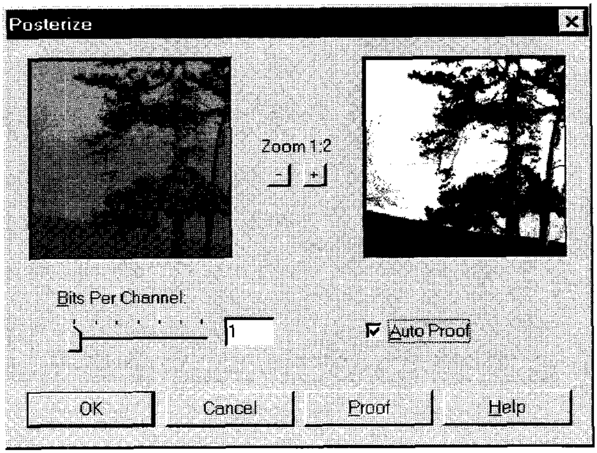
NOTES: For the Posterize command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

To posterize a selection or an image:

1. Choose Posterize from the Colors menu. The Posterize dialog box opens.
2. The preview on the left displays the current image. The preview on the righ updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

Posterize Dialog Box



Zoom 1:2

Bits Per Channel: 1

☑ Auto Proof

3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Move the Bits per Channel slider to select from 1-7 bits.
5. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
6. To apply the changes, click OK.

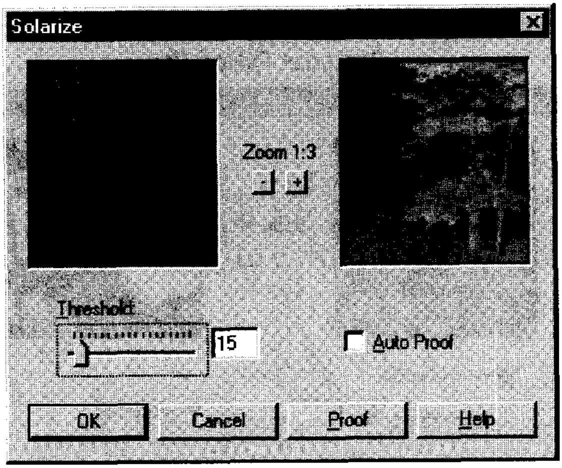
Solarize Command

The Solarize command produces the same effect as the Negative Image function, but it lets you control the Threshold level. The Threshold level is the lightness value above which colors are inverted. You set the level, and all colors with lightness values above the level are turned into their inverse (on the 255 scale). At a Threshold level of 1, all colors except black change. As the Threshold level increases, colors must be increasingly lighter to invert.

NOTES: For the Solarize command to work on a selection, the image must be a grey scale or 24-bit color image. With lower color depths, the command affects the entire image.

To limit the color adjustment to a selection, make the selection before choosing the command.

Solarize Dialog Box



Threshold 15

☐ Auto Proof

To solarize a selection or image:

1. Choose Solarize from the Colors menu. The Solarize dialog box opens.
2. The preview on the left displays the image at the current settings. The preview on the right updates as you adjust the settings. Click the "+" and "- buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Move the Threshold slider to select a level from 1-254 to select the lightness level at which colors are inverted.
5. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
6. To apply the changes, click OK.

MAGE COLOR DEPTH

Color depth, also called pixel depth, refers to the amount of color information available to each pixel in an image. An image with a color depth of 1-bit can display only two colors. Paint Shop Pro uses black and white when reducing an image to 1-bit. As the color depth increases, more colors are available. An image with an 8-bit color depth can display 256 colors; a 24-bit image can display 16 million colors.

iewing an Image's Color Depth

To check the color depth of an image, choose Image Information from the View menu. In the Image panel, the information is displayed in both bits per pixel an maximum number of colors.

Several of Paint Shop Pro color commands and features can only be performed on grey scale and 24-bit images. When you want to use them, increase the color depth of your image, apply the command, and then reduce your image back to the original color depth.

Image Information - Color Depth

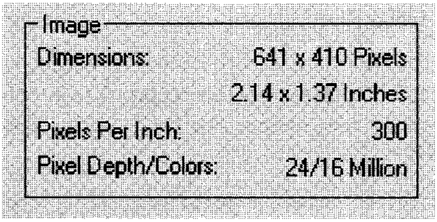


Image
Dimensions: 641 x 410 Pixels
2.14 x 1.37 Inches
Pixels Per Inch: 300
Pixel Depth/Colors: 24/16 Million

You can also check how many colors an image or layer contains. Choose Count Colors Used from the Colors menu. If the image has more than one layer, Paint Shop Pro counts the colors on the selected layer.

ncreasing Color Depth

NOTE: Color depth adjustments can only be performed on an image with a singl layer. Paint Shop Pro will ask to flatten the image and will flatten it befor changing the color depth.

To increase an image's color depth, choose a color depth from the Increase Color Depth submenu of the Colors menu.

ecreasing Color Depth

NOTE: Color depth adjustments can only be performed on an image with a singl layer. Paint Shop Pro will ask to flatten the image and will flatten it befor changing the color depth.

Paint Shop Pro offers a choice of reduction methods and palettes to decrease an image's color depth. As mentioned in the previous chapter, whenever the color depth (pixel depth) of an image is lower than 24-bits, Paint Shop Pro automatically generates a palette for the image. It then uses this palette to color the image.

Color Reduction Methods

The available color reduction options depend on the final color depth. When you reduce an image to 15 or 16-bits per pixel, Paint Shop Pro uses either Nearest Color or Error Diffusion. When reducing colors to 8-bits per pixel and below, Paint Shop Pro can also use Ordered Dither.

Nearest Color Method

With the nearest color method, Paint Shop Pro replaces the original color of a pixel with the color in the newly generated palette that is closest to it.

Ordered Dither Method

With ordered dither, Paint Shop Pro adjusts adjacent pixels of different colors tc give the illusion of a third color. It uses set patterns based on a known palette to adjust the pixels. This method can result in distinct patterns of light and dark areas.

Error Diffusion Method

With error diffusion, Paint Shop Pro uses the nearest color method, but it spreac out the inaccuracy in representing a pixel's color to the surrounding pixels. Whe it replaces a color, the inaccuracy, or "error," is carried to the next pixel, where the error is added to the color before selecting the nearest color. This process is repeated for every pixel in the image.

Color Reduction Palette Options

When you reduce an image to 8-bits and lower (256 colors and below), Paint Shop Pro offers you a choice of palettes.

Optimized Median Cut Palette

This palette is generated using the Heckbert median cut algorithm. The palette uses occurrence of colors as weighting, and ranks accordingly. It is accurate onl to 5-bits per channel.

Optimized Octree Palette

Paint Shop Pro generates this palette more quickly than the previous palette. It i accurate to 8-bits per channel, but it is not as good at weighting color importanc as the optimized median cut palette.

Standard Palette

The standard palette is a generic palette that contains a balanced number of colors.

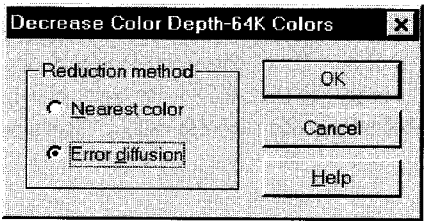
Reducing an Image to 32K or 16K Colors

NOTE: A 32K or 16K color image is treated the same by Paint Shop Pro as a 16 million color image. This means that any operation performed after the conversion may result in an image that is no longer 32K or 16K colors.

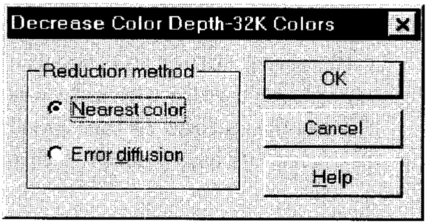
To reduce an image's colors to 32K or 16K (16 or 15-bit depth):

1. In the Colors menu, choose Decrease Color Depth, and from the submenu, choose either the 32K Colors or 16K Colors (16 or 15-bit). The Decrease Color Depth - 16K or Decrease Color Depth - 32K dialog box opens.
2. Select either the Nearest Color Method or Error Diffusion Method option. (See "Color Reduction Methods" above.)
3. Click OK.

Decrease Color Depth - 64K


Decrease Color Depth-64K Colors
Reduction method
○ Nearest color
● Error diffusion
OK
Cancel
Help

Decrease Color Depth - 32K

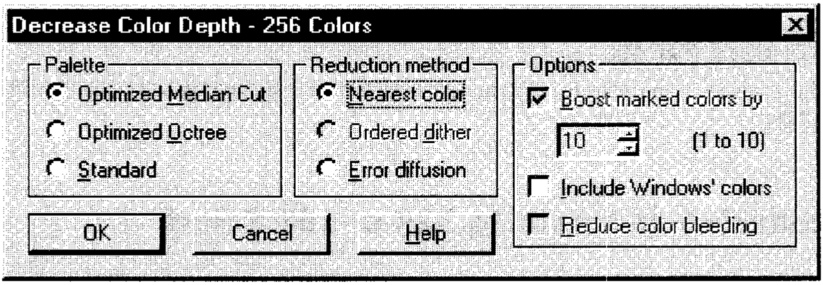

Decrease Color Depth-32K Colors
Reduction method
● Nearest color
○ Error diffusion
OK
Cancel
Help

Reducing an Image to 256 or 16 Colors

To reduce an image's colors to 256 or 16 colors (8 or 4-bit depth):

1. In the Colors menu, choose Decrease Color Depth, and from the submenu, choose either 256 Colors or 16 Colors (8 or 4-bit). The Decrease Color - 256 Colors or Decrease Color - 16 Colors dialog box opens.
2. In the Palette panel, select a palette option.

Decrease Color Depth - 256 Colors Dialog Box


Decrease Color Depth - 256 Colors
Palette
● Optimized Median Cut
○ Optimized Octree
○ Standard
Reduction method
● Nearest color
○ Ordered dither
○ Error diffusion
Options
☑ Boost marked colors by
10
(1 to 10)
☐ Include Windows' colors
☐ Reduce color bleeding
OK
Cancel
Help

3. In the Color Reduction panel, select a color reduction method. You can select either the Nearest Color Method or Error Diffusion Method option. (See the

color reduction methods discussion above in the "Decreasing Color Depth" section.)

4 If you selected the Optimized Median Cut or the Optimized Octree palette, select the "Include Windows colors" check box if you want the 20 standard Windows colors to be included in the palette.

5 If you also chose the Error Diffusion color reduction method, you can select the "Reduce color bleeding" check box to make the left to right "bleed effect less noticeable.

6 Select the Boost Marked Colors option to emphasize the importance of specific colors. Before opening the Decrease Color Depth dialog box, make a selection of an area that contains these colors; then select this option to make the colors "more important" by a factor of the value you enter. The selected colors will stand out from the rest of the image.

7 Click OK.

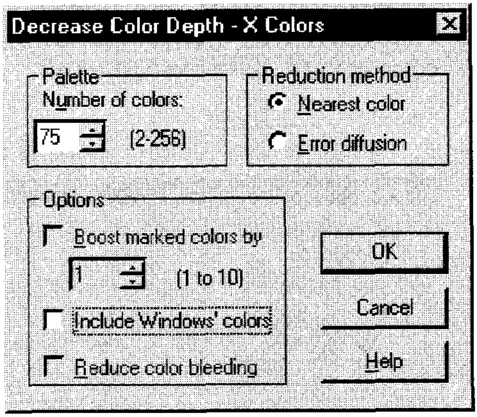
Reducing an Image to 2-256 Colors

To reduce an image's colors to any value between 2 and 256:

1 In the Colors menu, choose Decrease Color Depth, and from the submenu, choose X Colors (8-bit). The Decrease Color Depth - X Colors dialog box opens.

2 In the Palette panel, enter the number of colors for the new palette. You can choose any number from 2 to 256.

Decrease Color Depth - X Colors Dialog Box



Decrease Color Depth - X Colors

Palette
Number of colors: 75 (2-256)

Reduction method
● Nearest color
○ Error diffusion

Options
☐ Boost marked colors by 1 (1 to 10)
☐ Include Windows' colors
☐ Reduce color bleeding

3. In the Reduction Method panel, select either the Nearest Color Method or Error Diffusion Method option. (See the color reduction methods discussion above in the "Decreasing Color Depth" section.)
4. If you selected the Error Diffusion option for color reduction, you may select the "Reduce color bleeding" check box to make the left to right "bleed effect" less noticeable.
5. To include the standard Windows colors in the palette, select the "Include Windows colors" check box. If this check box is selected, the minimum number of colors is 37.
6. Select the Boost Marked Colors option to emphasize the importance of specific colors. Select an area that contains these colors, and then select this option to make the colors "more important" by a factor of the value you enter. The selected colors will stand out from the rest of the image.
7. Click OK.

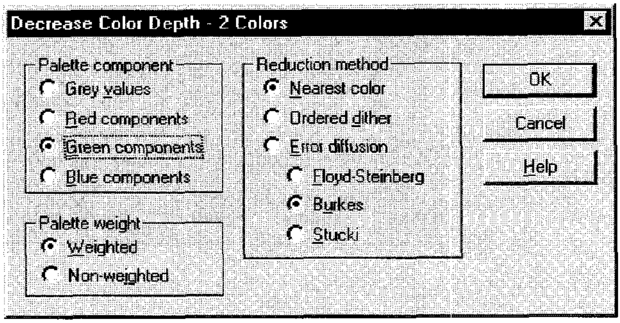
Reducing an Image to 2 Colors

NOTE: Paint Shop Pro always uses black and white when reducing an image to two colors.

To reduce an image to 2 colors (1-bit depth):

1. In the Colors menu, choose Decrease Color Depth, and from the submenu, choose 2 Colors (1-bit). The Decrease Color Depth - 2 Colors dialog box opens.
2. In the Palette Component panel, select the color channel to be used for the final image. Selecting Grey Values uses the lightness of the image and produces the best results in most cases. If an image contains mostly one color selecting that color may produce the best result.

Decrease Color Depth - 2 Colors Dialog Box



Decrease Color Depth - 2 Colors

Palette component
○ Grey values
○ Red components
● Green components
○ Blue components

Palette weight
● Weighted
○ Non-weighted

Reduction method
● Nearest color
○ Ordered dither
○ Error diffusion
○ Floyd-Steinberg
● Burkes
○ Stucki

3. Select a Palette Weight option. Weighting the palette sets the image's curre colors closer to black and white before reducing them. This results in less dithering, which produces sharper edges. A non-weighted palette produce more dithering and softer edges.
4. Select a color reduction method. (See the color reduction methods discussi above in the "Decreasing Color Depth" section.) Using the Nearest Color method eliminates dithering and produces a high contrast image. Using th Ordered Dither method intermingles pixels to produce patterns. Images m appear to be composed of cross-hatches and dots. With the Error Diffusion method, you must also select the Floyd-Steinberg, Burkes, or Stucki option. These are three algorithms used to determine the dithering pattern.
5. Click OK.

CHAPTER

Using the Painting an Drawing Tool

Paint Shop Pro contains several painting and drawing tools on its Tools palette. These range from standard paint brushes to photo retouching tools to the Text tool. To use a tool, you first set its options on the Control palette and select its colors from the Colors palette or the image.

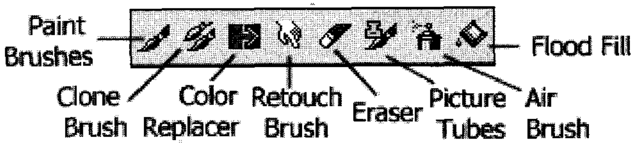
View/Hide Tool Palette Button

To hide and display the Tools palette, do one of the following:

- Press <T>.
- Click the View/Hide Tool Palette button on the toolbar.
- From the View menu, choose Toolbars, and select or uncheck the "Tool Palette" check box.

Because many tools will operate or will have the desired effect only on grey sca or 24-bit images, you may need to increase the color (bit) depth of your image before using these tools. For help with this, see the previous chapter.

Paint Shop Pro Painting Tools



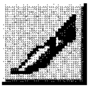
USING A BRUSH

There are four steps to using a brush:

1. Activating the brush.
2. Selecting the brush colors.
3. Configuring the brush tip and attributes.
4. Applying the paint to the image.

tivating a Brush

Paint Brushes Button



To activate a brush:

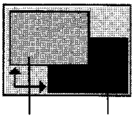
1. Display the Tool palette if it is not visible.
2. On the Tool palette, click the button of the brush you want to use.

lecting Brush Colors

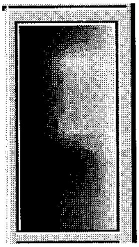
The colors you are currently using, called the active colors, are displayed in the Active Color panel of the Color palette. There are two active colors, the foreground and background colors. You can change the brush colors at any time by selecting new foreground and background colors.

Many brushes let you paint with both the foreground and background colors. When using both, painting with the left mouse button applies the foreground color; painting with the right mouse button applies the background color.

Active Color Panel



Select Color Panel



You can select active colors from:

- The Select Color Panel
- The Edit Palette Dialog Box
- The Jasc and Windows Color Dialog Boxes
- The Image

For help selecting the foreground and background colors, see Chapter 6, "Working with Color."

lecting Brush Options

Before painting, select the brush options from the Brush Tip and Tool Controls tabs on the Control palette. When you click a brush button on the Tool palette, the Control palette, if visible, displays the options for that brush.

View/Hide
Control Palette
Button

To view/hide the Control palette, do one of the following:

- Press <O>.
- Click the View/Hide Control Palette button on the toolbar.
- From the View menu, choose Toolbars, and select or clear the "Control Palette" check box.

The Brush Tip Tab

The Brush Tip tab contains the six attributes that determine how a brush applie paint to an image. As you create or modify a brush, the preview box displays t new tip. You can select the brush tip options or use one of the Paint Shop Pro custom brushes.

Shape

Shape controls the shape of the brush tip. The choices are round, square, vertic horizontal, right slash, and left slash. When the brush touches the image, it applies paint in the selected shape. For example, if you click your image once with a square brush, the brush will apply a square-shaped area of paint.

Set the other options by moving their sliders. Move a slider to the right to increase the effect of the option; move it to the left to decrease it.

Size

Size is the width of the brush tip in pixels. A brush can be from 1-200 pixels wi

Opacity

Opacity controls how well the paint covers the image surface. Lowering the opacity is like diluting paint. At 100% opacity, the paint covers everything; at 1%, the paint is almost transparent.

Density

Density controls the amount of paint the brush applies with each stroke. The density can be compared to the number of bristles in a brush—increasing and decreasing density adds and removes bristles. At 100%, the paint covers the surface completely. As the density decreases, the amount of paint applied with each stroke decreases. At 1%, only a few specks (pixels) of paint appear.

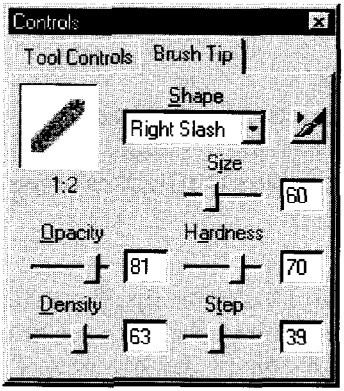
Hardness

Hardness controls the sharpness of the brush edges. The harder the brush, the more defined the edges of paint will be. At 100%, the paint stroke has sharply defined edges. As the hardness decreases, the brush edge softens.

Step

Step controls the spacing of the discrete drops of paint, or how frequently the brush tip touches the image during a stroke. It is a percentage of the diameter the brush tip. At 100%, a size 30 brush tip touches the surface once every 30 pixels, and the brush shape is clearly defined; at 50%, the tip touches in the middle of the previous tip. As the step decreases, the brush tip touches the surface more frequently. Its outline becomes less noticeable, and the strokes appear smoother and more dense.

Brush Tip Tab



Shape: Right Slash
1:2
Size: 60
Opacity: 81
Hardness: 70
Density: 63
Step: 39

The Tool Controls Tab

When you activate the Paintbrush, the Tool Controls tab displays the Paper Textures option. The textures simulate a variety of surfaces and make it look as though you are painting on paper with that texture. The effect is like that of making a rubbing, where you place a sheet of paper on a textured surface and cover it by rubbing with charcoal, pencil, or another dry medium.

To select the brush options:

1 If the Control palette is hidden, make it visible.

2 Select a foreground and background color using one of the methods described in the previous chapter.

3 If necessary, click the Brush Tip tab on the Control palette to bring it forward.

4 Select a custom brush tip from the Shape box or create your own. (See "Choosing a Paint Shop Pro Custom Brush," below, for information on custom brushes.)

5 Select a brush size by moving the Size slider.

6 Set the opacity of the paint by moving the Opacity slider.

7 Set the density of the paint by moving the Density slider.

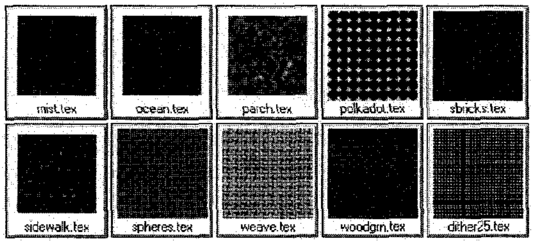
8 Set the hardness of the brush edge by moving the Hardness slider.

9 Set the size of the brush step by moving the Step slider.

10 Click the Tool Controls tab to bring it to the front.

11 To select a paper texture, click the arrow button in the Paper Texture drop down box, scroll to the selected texture, and highlight it.

Paper Textures



Painting with a Brush

NOTES: To confine the paint to a specific area, create a selection before painti

You can change the brush options, style settings, and colors in betwee brush strokes.

Painting

To paint freehand brush strokes:

1 If the image contains more than one layer, select the layer to paint.

2 Position the cursor where you want to start the brush stroke.

3 Press and hold down the left or right mouse button:

- Press the left mouse button to apply the foreground color.
- Press the right mouse button to apply the background color.

4 Drag the mouse to apply color.

5 To end a paint stroke, release the mouse button. Each time you release the mouse button, you "lift" your brush from the canvas, ending the paint stro

To paint straight brush strokes:

1 Position the cursor where you want to begin a straight brush stroke.

2 Click the left or right mouse button:

- Click the left mouse button to apply the foreground color.
- Click the right mouse button to apply the background color.

3 Press and hold the <Shift> key.

4 Position the cursor where you want to end the first stroke.

5 Click with the left or right mouse button to paint the foreground or background color.

6 Continue to add straight brush strokes by clicking with either mouse button.

7 When you have finished, release the <Shift> key.

ndoing the Paint Strokes

If you make a mistake or want to redo the painting, you can remove it by choosing Undo from the Edit menu. You can undo more than one stroke—set the levels, or numbers, of Undo in the Undo tab of the General Preferences dialog box. To undo the earlier paint strokes, choose Undo History from the Edit menu and select the paint strokes from the Undo History list. The number of levels you can select is limited only by your computer hard disk space. For help setting the Undo preferences, see Chapter 12, "Configuring Paint Shop Pro."

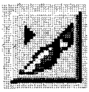
hoosing a Paint Shop Pro Custom Brush

Paint Shop Pro offers custom brushes that simulate various drawing and painting tools. When you choose a custom brush, Paint Shop Pro configures the Shape, Opacity, Density, and Hardness settings. (Except for the Paintbrush, which can be any shape.)

To select a Paint Shop Pro custom brush:

1. Click the Custom Brush button on the Brush Tip tab to open the Custom Brush menu.
2. Choose a brush from the drop-down menu.
3. Select the Size and Shape options on the Brush Tip tab.

Custom Brush Button



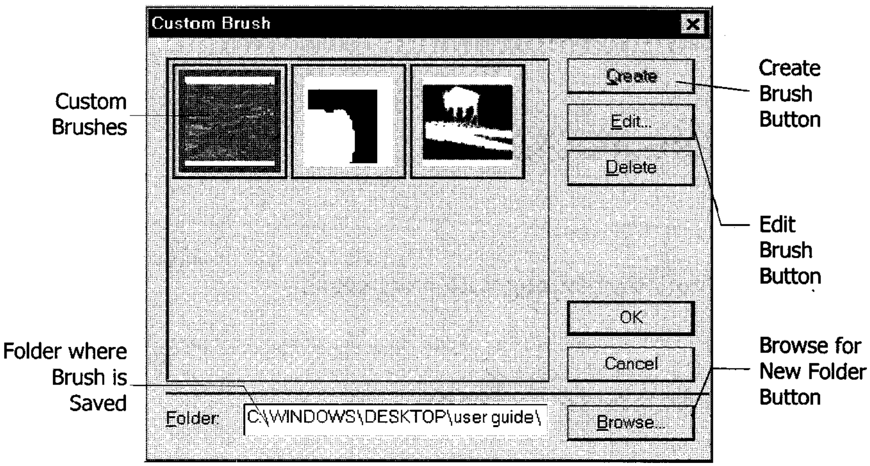
reating Your Own Custom Brush

You can create your own custom brushes to use with any image. They can be made from selections with a width and height of up to 255 by 255 pixels. The brush will be square or rectangular depending on the shape of your selection.

To create a custom brush:

1. Make a selection of the area you want to transform into a brush.
2. Click any brush button on the Tool palette to activate the Brush Tip tab.
3. On the Control palette, click the Brush Tip tab to bring it to the front.
4. Click the Custom Brush button.
5. Choose Custom from the drop-down menu. The Custom Brush dialog box opens.

Custom Brush Dialog Box


Custom Brush
Custom Brushes
Create
Edit...
Delete
OK
Cancel
Browse...
Create Brush Button
Edit Brush Button
Folder where Brush is Saved
Browse for New Folder Button

Folder: C:\WINDOWS\DESKTOP\user guide\

6 To save the brush in a folder other than the Paint Shop Pro **Brushes** folder, c one of following:

- Type the pathname in the Folder box.
- Click the Browse button. When the Browse for Folder dialog box opens, navigate to the folder, select it, and click OK.

7 Click the Create button. The new brush thumbnail appears in the dialog bo Paint Shop Pro saves the brush in the selected folder when it creates it.

8 Click OK.

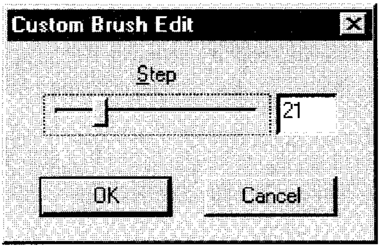
Editing Your Custom Brush

When you create a brush, you set the default step value in the Edit Brush box.

To edit a custom brush:

1 Click the Edit button in the Custom Brush dialog box. The Custom Brush Edit box opens.

Custom Brush Edit Box


Custom Brush Edit
OK
Cancel

Step 21

2 Drag the slider or type a value to set the step size.

3 Click OK to close the dialog box and save this value.

THER PAINTING TOOLS

irbrush

Airbrush Button

The Airbrush simulates painting with an airbrush or spray can.

Setting the Airbrush Options

To set the Airbrush options:

1. Activate the Airbrush by clicking its button on the Tool palette.
2. Select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."
3. If the Control palette isn't visible, display it now.
4. If necessary, click the Brush Tip tab on the Control palette to bring it to the front.
5. From the drop-down Shape box, select one of six brush shapes. The choices are round, square, vertical horizontal, right slash, and left slash.
6. Select a brush size by dragging the Size slider. A brush can be from 1-200 pixels wide.
7. Set the opacity of the paint by dragging the Opacity slider. At 100% opacity, the paint covers everything; at 1%, the paint is almost transparent.
8. Set the density of the paint by dragging the Density slider. At 100%, the pain covers the surface completely. As the density decreases, the amount of paint applied with each stroke decreases. At 1%, only a few specks (pixels) of pain appear.
9. Set the hardness of the brush edge by dragging the Hardness slider. At 100% the paint stroke has sharply defined edges. As the hardness decreases, the brush edge softens.
10. Set the size of the brush step by sliding the Step slider. At 100%, the brush shape is clearly defined; as the step decreases, the strokes appear smoother and more dense.
11. If you want to select a paper texture, bring the Tool Controls tab to the front by clicking it. The Paper Texture options simulate a variety of surface textures.

12 In the Paper Texture drop down box, scroll to the selected texture and highlight it.

Painting with the Airbrush

NOTES: To confine the paint to a specific area, make a selection before paintin

To undo an Airbrush stroke, immediately choose Undo from the Edit menu.

After you have activated the Airbrush and selected the options and colors, to paint with the Airbrush:

1. Position the cursor where you want to start painting.
2. Press and hold down the left or right mouse button.
   - Press the left mouse button to apply the active foreground color.
   - Press the right mouse button to apply the active background color.
3. Drag the mouse to apply color.
4. When you have finished painting, release the mouse.

You can also paint straight brush strokes with the Airbrush. To do this:

1. Position the cursor where you want to begin a straight brush stroke.
2. Click the left or right mouse button:
   - Click the left mouse button to apply the active foreground color.
   - Click the right mouse button to apply the active background color.
3. Press and hold the <Shift> key.
4. Position the cursor where you want to end the first stroke.
5. Click with the left or right mouse button, depending on the stroke color yo want.
6. You can continue adding straight brush strokes by clicking with either mou button. When you have finished, release the <Shift> key.

Eraser

Eraser Button

Use the Eraser to replace colors in an image with the background color or with a transparency. Erasing any layer other than the background replaces color with transparency. Erasing the background replaces the existing color with the foreground or background colo

Setting the Eraser Options

To set the Eraser options:

1. Activate the Eraser by clicking its button on the Tool palette.
2. If erasing the background layer, select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."
3. If the Control palette is hidden, make it visible.
4. If necessary, click the Brush Tip tab on the Control palette to bring it forward
5. From the drop-down Shape box, select one of six Eraser shapes. The shapes are round, square, vertical, horizontal, right slash, and left slash.
6. Select an Eraser size by dragging the Size slider. An Eraser can be from 1-200 pixels wide.
7. Set the opacity of the Eraser by dragging the Opacity slider. Lowering the opacity reduces the strength of the eraser.
8. Set the density of the Eraser by dragging the Density slider. At 100%, the Eraser covers the surface completely, so it removes all the paint. At 1%, it erases only a few specks (pixels) of paint.
9. Set the hardness of the edge by dragging the Hardness slider. At 100%, the stroke has sharply defined edges. As the hardness decreases, the Eraser edge softens.
10. Set the size of the Eraser step by moving the Step slider. At 100%, the eraser shape is clearly defined; as the step decreases, the strokes appear smoother.
11. If you want to select a paper texture, bring the Tool Controls tab to the front by clicking it. The Paper Texture options simulate a variety of surface textures.
12. In the Paper Texture drop down box, scroll to the selected texture and highlight it.

Painting with the Eraser

NOTES: To confine the Eraser to a specific area, make a selection before erasing

To undo an Eraser stroke, immediately choose Undo from the Edit menu.

1. Activate the Eraser and set its options. (See above.)
2. Place the cursor where you want to start erasing.
3. Press and hold the left mouse button.
4. Drag the mouse to erase.
5. Drag with the right mouse button to reapply the erased paint.
6. Release the mouse button to end the Eraser stroke.

Erasing with Straight Strokes

1 Activate the Eraser and set its options. (See above.)
2 Click where you want to begin erasing.
3 Press and hold the <Shift> key.
4 Click where you want to end the first line segment.
5 You can continue erasing in line segments by clicking the image. After you have finished, release the <Shift> key .

Clone Brush

Use the Clone brush to copy part of an image to another location. For example, if a photograph has a flaw against a multi-toned or multicolored background, such as skin, cloth, water, can use the Clone brush to copy the background over the flaw.

Clone Brush Button

NOTES: The Clone brush can be used only on a 24-bit color or a grey scale image.

You can clone within an image, between layers, or between two image of the same color depth.

Image Areas

When you use the Clone brush, you work with two image areas:

- The source area, which is the area you copy from. (The source area contain the data you want to copy.)
- The target area, which is the area you copy to. It can be within the same image or in another image of equal color depth.

Setting the Clone Brush Options

Brush Tip Tab Options

To set the Clone brush options:

1 Activate the Clone brush by clicking its button on the Tool palette
2 If the Control palette is hidden, make it visible.
3 If necessary, click the Brush Tip tab on the Control palette.
4 From the drop-down Shape box, select one of six brush shapes. The brush shapes are round, square, vertical, horizontal, right slash, and left slash.

5. Select a brush size by dragging the Size slider. A brush can be from 1-200 pixels wide.
6. Set the opacity of the paint by dragging the Opacity slider. At 100% opacity, the paint covers everything; at 1%, the paint is almost transparent.
7. Set the density of the paint by dragging the Density slider. At 100%, the pain covers the surface completely. At 1%, only a few specks (pixels) of paint appear.
8. Set the hardness of the brush edge by dragging the Hardness slider. At 100% the paint stroke has sharply defined edges. As the hardness decreases, the brush edge softens.
9. Set the size of the brush step by sliding the Step slider. At 100%, the brush shape is clearly defined; as the step decreases, the strokes appear smoother.

Tool Controls Tab Options

1. Click the Tool Controls tab to bring it to the front.
2. In the Clone Mode drop down box, select Aligned or Non-aligned mode. Th clone mode controls the position of the source area when you release the mouse button and then resume cloning:
   - Aligned mode, in which the source area moves each time you release the mouse. The source area is the reference point for the cloning. When you release and then re-click the mouse, the brush clones the image relative to the distance from the source area.
   - Non-aligned mode, in which the source area does not move when you release the mouse. The brush (and the cloning) return to source area eac time you release and then re-click the mouse.
3. If you want to select a paper texture, open the Paper Texture drop down box scroll to the selected texture, and highlight it. The Paper Texture options simulate a variety of surface textures.
4. Select the "Sample Merged" check box to clone all visible data rather than just one layer. If the check box is not selected, only the data on the active layer when the source point was defined will be cloned.

Using the Clone Brush

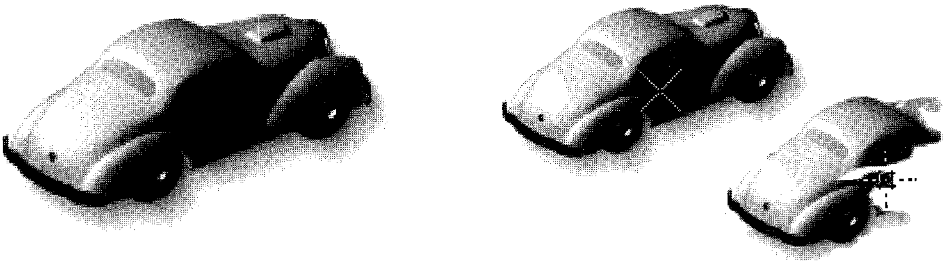
NOTES: When using two images, make sure they are of equal color depth befor you begin.

To confine the cloning to a specific area, make a selection before clonin

To clone an image:

1. Position the cursor over the part of the image that you want to copy. To set the source area, do one of the following:
   - Right-click the source area once. Your computer will beep to indicate th you have selected the source area.
   - <Shift> + Click the source area.
2. If you want to place the cloned image on a specific layer or in a selection, select that area now. Paint Shop Pro will only apply color within the selection. For help with selections, see Chapter 5; for help with layers, see Chapter 9.
3. Move the cursor to where you will start copying the image. The target area can be within the same image or in another image of the same color depth.
4. Press and hold the left mouse button. Crosshairs appear over the source are The crosshairs indicate which pixel you are copying.
5. Drag the mouse to clone from the source area to the target area.
6. Release the mouse button to end the Clone brush stroke.
7. To resume copying, start over at step 5. Remember that the location of the source area depends on the clone mode.

Using the Clone Brush



Source Area

Target Area

etouch Tool

Retouch Button

Use the Retouch tool to apply photo retouching effects to an image.

etting the Retouch Tool Options

To set the Retouch tool options:

1. Click the Retouch button on the Tool palette.
2. On the Control palette, click the Tool Controls tab to bring it to the front, if necessary.
3. In the Retouch Mode drop-down box, select the effect you want to create. The choices are described below.
4. If you want to use a paper texture, select one from the Paper Texture drop-down box. The Paper Texture options simulate a variety of surface textures.
5. Select the "Sample Merged" check box to apply the retouch affect to the image as a whole. If the check box is not selected, only the data on the active layer will be affected.
6. Click the Brush Tip tab to bring it to the front.
7. From the drop-down Shape box, select a brush shape. The choices are round, square, vertical, horizontal, right slash, and left slash.
8. Select a brush size by dragging the Size slider. A brush can be from 1-200 pixels wide.
9. Set the opacity of the paint by dragging the Opacity slider. With this tool, you may want to start at a lower opacity and increase it if necessary.
10. Set the hardness of the brush edge by dragging the Hardness slider. At 100% the paint stroke has sharply defined edges. As the hardness decreases, the brush edge softens.
11. Set the size of the brush step by sliding the Step slider. For best results in the Smudge and Push modes, set the Step to 1.

Retouch Modes

Paint Shop Pro offers several Retouch modes, many of which apply the same effects as the Adjust Color commands. Use the Retouch tool when you want to paint with the effect rather than apply it to the entire image or selection. For mor information on RGB and HSL values, see Chapter 6, "Working with Color."

Retouch Mode Settings

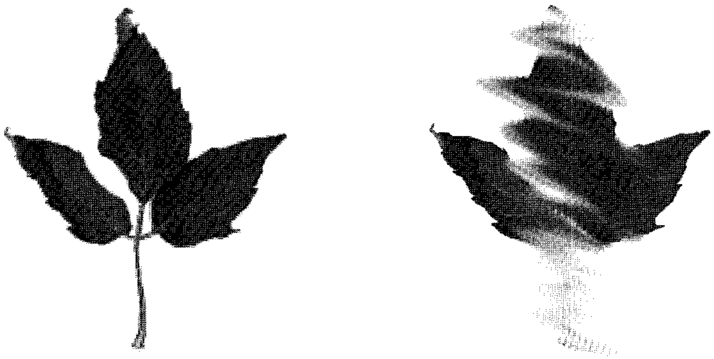
Retouch Mode	**Effect Produced**
Lighten	Increases brightness (works on RGB values)
Darken	Decreases brightness (works on RGB values)
Soften	Smoothes edges and reduces contrasts
Sharpen	Heightens edges and accentuates contrasts
Emboss	Causes foreground to appear raised from background by suppressing color and tracing edg in black
Smudge	Spreads color from the starting point and picks up new color as it moves. The effect is similar to smearing paint.
Push	Similar to Smudge, but does not pick up any new color.
Dodge	Lightens and brings out the details in areas that ar in shadow. Comes from the darkroom technique o holding back some of the light when developing film to produce lighter areas. The opposite of Burn
Burn	Darkens areas in the image that are too light. The opposite of Dodge.
Saturation Up	Increases saturation (affects HSL value)
Saturation Down	Decreases saturation (affects HSL value)
Lightness Up	Increases lightness (affects HSL value)
Lightness Down	Decreases lightness (affects HSL value)
Hue Up	Shifts hue up (affects HSL value)
Hue Down	Shifts hue down (affects HSL value)
Saturation to Target	Applies the saturation value equal to that of the foreground color without affecting the hue or lightness
Lightness to Target	Applies the lightness value equal to that of the foreground color without affecting the saturation o hue
Hue to Target	Applies the hue of the foreground color without affecting the saturation or lightness
Color to Target	Applies the foreground color without affecting the luminance

Using the Retouch Tool

NOTE: To confine the retouching to a specific area, select the area before painting.

To use the Retouch tool:

1. Activate the Retouch tool and set its options. (See above.)
2. To retouch a specific layer, select the layer.
3. Position the cursor on the area you want to retouch. It's generally a good idea to zoom in on the part of the image that you are retouching.
4. Press and hold the left mouse button.
5. Drag the mouse to apply the retouch effect. If necessary, increase the opacity of the retouch tool.
6. Release the mouse button to end the Retouch stroke.



Retouch Tool - Push Mode

Retouching with Straight Strokes

To retouch using straight strokes:

1. Activate the Retouch tool and set its options. (See above.)
2. Click where you want to begin retouching.
3. Press and hold the <Shift> key.
4. Click where you want to end the first line segment.
5. You can continue applying the effect in line segments by clicking the image.
6. When you have finished, release the <Shift> key.

Color Replacer Tool

Color Replacer
Tool Button

The Color Replacer replaces one color in an image with a new color. You can choose to replace all occurrences of a color or to paint with the Color Replacer, replacing only those areas the brush covers.

Setting the Color Replacer Options

1 Activate the Color Replacer by clicking its button on the Tool palette.

2 Select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."

3 If the Brush Tip tab isn't visible, display it now.

4 If you are replacing all occurrences of a color, go to step 10. If you are painting with the Color Replacer, continue with step 5.

5 From the drop-down Shape box, select one of six brush shapes. The brush shapes are round, square, vertical, horizontal, right slash, and left slash.

6 Select a brush size by dragging the Size slider. A brush can be from 1-200 pixels wide.

7 Set the density of the paint by dragging the Density slider. At 100%, the pai covers the surface completely. As the density decreases, the amount of pain applied with each stroke decreases.

8 Set the hardness of the brush edge by dragging the Hardness slider. At 100 the paint stroke has sharply defined edges. As the hardness decreases, the brush edge softens.

9 Set the size of the brush step by sliding the Step slider. At 100%, the brush shape is clearly defined; as the step decreases, the strokes appear smoother.

10 Click the Tool Controls tab to bring it to the front.

11 Set a color tolerance level in the Tolerance box. The tolerance setting determines how close a color must be to the target color in order to be replaced. The scale is 0 to 200, with 0 being no tolerance (a perfect color match), and 100 being a tolerance of roughly half the spectrum.

12 If you want to use a paper texture, click the arrow button in the Paper Texture drop down box and scroll to the texture.

Replacing all Occurrences of a Color

If you want to replace all occurrences of a color within a specific area of the image, select the area now. For help making selections, see Chapter 5, "Workin with Selections."

To replace occurrences of a color:

1. Activate the Color Replacer by clicking its button on the Tool palette.
2. To limit the color replacement to a specific layer, select the layer.
3. Use the left or right mouse to double-click the image:
   - To replace the background color with the foreground color, double-click left mouse button anywhere in the image.
   - To replace the foreground color with the background color, double-click the right mouse button anywhere in the image.

Painting with the Color Replacer

You can use the Color Replacer as a brush, replacing a color only where the brush touches the image.

NOTES: To confine the color replacement to a specific area, select the area before painting with the Color Replacer.

To undo a Color Replacer stroke, immediately choose Undo from the Edi menu.

To replace a color using brush strokes:

1. To limit the color replacement to a specific layer, select the layer.
2. Place the cursor where you want to start replacing a color.
3. Press and hold down the left or right mouse button:
   - To replace the background color with the foreground color, press and hold down the left mouse button.
   - To replace the foreground color with the background color, press and hold down the right mouse button.
4. Drag the mouse to replace the color where the brush touches it.
5. Release the mouse button to end a brush stroke.

Replacing Color with Straight Strokes

NOTE: To confine the color replacement to a specific area, select the area befor painting with the Color Replacer.

To replace color with straight brush strokes:

1. Activate the Color Replacer and set its options and colors. (See "Setting the Color Replacer Options" above.)
2. To limit the color replacement to a specific layer, select the layer.
3. Click the image where you want to begin a line.

4 Press and hold the <Shift> key.

5 Move the cursor to where you want to end the first line segment, and:
   - Left-click to replace the background color with the foreground color.
   - Right-click to replace the foreground color with the background color.

6 Continue adding line segments by clicking with either mouse button.

7 After you have finished, release the <Shift> key.

Flood Fill Tool

The Flood Fill tool, which fills an area with a color, pattern, or gradient, has a number of options that control how it recognizes and replaces color.

Flood Fill Tool Button

Setting the Flood Fill Tool Options

To set the Flood Fill tool options:

1 Activate the Flood Fill tool by clicking its button on the Tool palette.

2 If the Control palette isn't visible, display it now.

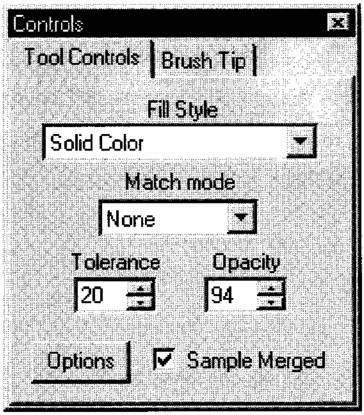
3 If necessary, click the Tool Controls tab to bring it to the front.

4 Select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."

5 Choose a fill style from the Fill Style drop down box.

6 In the Match Mode drop down box, select a method for determining which pixels are affected. The modes select the pixels using the following methods
   - RGB Value covers pixels with matching RGB values
   - Hue covers pixels with matching hue values.
   - Brightness covers pixels with matching luminance values.
   - None covers all pixels.

Fill Tool Controls Tab



Fill Style
Solid Color
Match mode
None
Tolerance 20
Opacity 94
☑ Sample Merged

7 Set a fill color tolerance. The fill tolerance setting determines how closely the color of a pixel must match the color of the selected pixel before it is overwritten. The Tolerance control uses a scale of 0 to 200, with 0 being no tolerance (only pixels with a perfect match will be filled), and 200 being total tolerance (all pixels will be filled).

8 Select an opacity for the fill. At 100% opacity, the paint covers everything; at 1%, the paint is almost transparent.

9 Select the "Sample Merged" check box to have the Match Mode selection use to the entire image. Leave the check box blank to limit it to the active layer.

10 Click the Options button. The Flood Fill Options dialog box opens. Refer to the following sections for descriptions of the dialog boxes.

Solid Color Fill Option

1 Select a foreground or background fill color.

2 Click the Options button on the Tool Controls tab. The Flood Fill Options dialog box opens.

3 Select a blend mode. For an explanation of the Blend Modes, see Chapter 9, "Working with Layers."

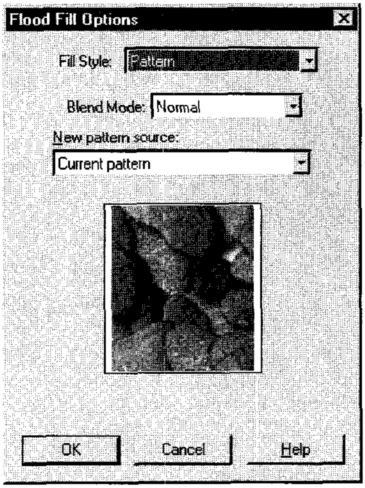
4 Click OK to close the dialog box and save the settings.

Pattern Fill Options

NOTE: Pattern Fills can only be performed on 24-bit color or on grey scale images.

When you use the Pattern Fill tool, the filled area is covered with the selected pattern. To use this style, first select a pattern source. You can use an entire ima or part of an image as a pattern source.

Pattern Fill Options Box



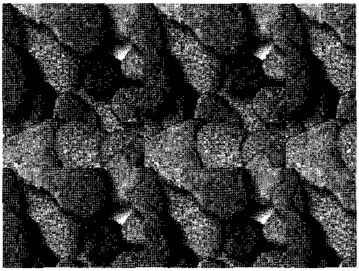
Flood Fill Options

Fill Style: Pattern

Blend Mode: Normal

New pattern source: Current pattern

Image Filled with Pattern



To set the Pattern Fill tool options and select a source:

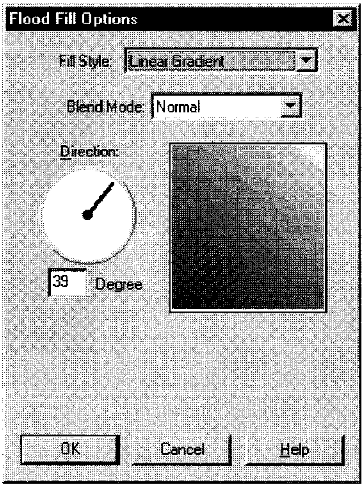
1. If the image that you want to use is not open, open it now.
2. If you want to use part of the image as the pattern source, make the selectio now. For help with selections, see Chapter 5, "Making Selections."
3. Click the Options button on the Tool Controls tab. The Flood Fill Options dialog box opens.
4. Select a blend mode. For an explanation of the Blend Modes, see Chapter 9, "Working with Layers."
5. Use the New Pattern Source drop down box to select the image that you want to use. You can use a current selection or any open image.
6. Click the OK Button. The dialog box closes and the new pattern is saved.

Linear Gradient Fill Options

The Linear Gradient blends from one color to another in any one direction.

NOTE: Linear Gradient Fills can only be performed on 24-bit color or on grey scale images.

Linear Gradient Fill Options Box



Flood Fill Options

Fill Style: Linear Gradient

Blend Mode: Normal

Direction:

39 Degree

To set the Flood Fill options for the Linear Gradient:

1. Select foreground and background colors for the gradient.
2. Set the options on the Tool Controls tab as described.
3. Click the tab's Options button. The Flood Fill Options dialog box opens.
4. Select a blend mode. For an explanation of the Blend Modes, see Chapter 9, "Working with Layers."
5. Set the Linear blend direction. You can either:
   - Click anywhere in the Direction circle or use the mouse to drag the control's needle.
   - Use the Degree box. Double-click the text box, and then type the number of degrees. The range is 0 to 360.

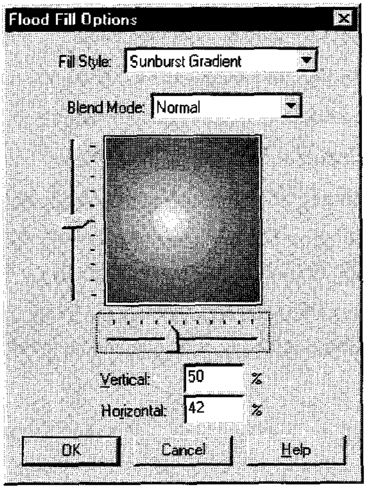
   The preview to the right of the Direction control shows the gradient fill at the selected setting.
6. Click the OK button. The dialog box closes and the settings are saved.

Rectangular, Sunburst, and Radial Gradient Fill Options

The Rectangular, Sunburst, and Radial Gradients require that you set the gradient fill's origin, which is the point from which the Gradient Fill disperses radiates. These three Gradient Fills use the same dialog box.

NOTE: Rectangular, Sunburst, and Radial Gradient Fills can only be performed 24-bit color or on grey scale images.

Gradient Fill Origin Options Box


Flood Fill Options

Fill Style: Sunburst Gradient

Blend Mode: Normal

Vertical: 50 %

Horizontal: 42 %

To set the Rectangular, Sunburst, and Radial Gradient fill options:

1. Select foreground and background colors for the gradient.
2. Click the Tool Controls tab's Options button. The Flood Fill Options dialog box opens.
3. Select a blend mode. For an explanation of the Blend Modes, see Chapter 9 "Working with Layers."
4. To set the distance between the top edge of the fill area and the gradient origin, drag the Vertical slider or double-click and type a new value in the Vertical box. The distance is measured as a percentage of the fill area's height.
5. To set the distance between the left edge of the fill area and the gradient origin, drag the Horizontal slider or double-click and type a new value in t Horizontal box. The distance is measured as a percentage of the fill area's width.
6. Click the OK button. The dialog box closes and the settings are saved.

Using the Flood Fill Tool

NOTES: If you want to confine the fill to a specific area, make a selection before using the Flood Fill tool.

To undo a flood fill, immediately choose Undo from the Edit menu.

To apply a Flood Fill after you set the options:

1. Select a foreground and background color if you have not already done so. For help selecting colors, see Chapter 6, "Working with Color."
2. Select the layer to be covered with the fill.
3. To limit the fill to a specific area, select that area now.
4. Click the Flood Fill button on the Tool palette.
5. Position the cursor on the image or selection.
6. Click with the left or right mouse button depending on the options selected:
    - With the Solid Color fill style, left-click to fill with the foreground color; right-click to fill with the background color.
    - With the Gradient fill styles, left-click to start the gradient with the foreground color; right-click to start the gradient with the background color.

cture Tubes

Paint Shop Pro's Picture Tube tool lets you paint with a variety of objects without having to draw them. You can add butterflies and beetles to a picnic setting, fill an aquarium with fish, or frame a picture with holly. Use one of the Picture Tubes included with the program or create your own.

Picture Tube Button

Each Picture Tube displays a variety of objects or an object in a variety of settings. For example, the Fish Picture Tube applies 12 different fish, while the Colored Spheres Picture Tube applies a sphere in 15 colors.

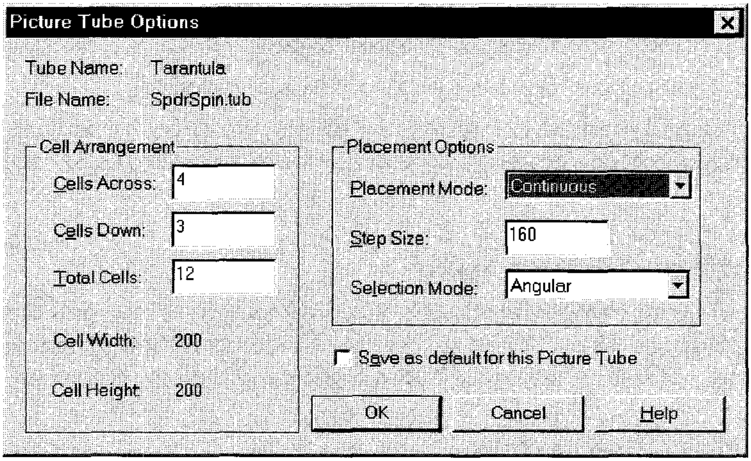
The Paint Shop Pro Picture Tubes are saved as ".tub" files in the Tubes folder of the program. If you use the Browser to view them, you can see that the objects are arranged in rows and columns. These rows are called cells. When you paint with a Picture Tube, you can control which object appears by changing the settings in the Selection Mode box of the Picture Tube Options dialog box. This dialog box also contains a Cell Arrangement panel, which you use when you a painting with a Picture Tube you have created. This panel is explained in the "Creating a Picture Tube" section below.

Setting the Picture Tube Options

To set the Picture Tube options:

1. Activate the Picture Tube tool by clicking its button on the Tool palette.
2. On the Control palette, click the Tool Controls tab, if necessary, to bring it the front.
3. Select a Picture Tube from the Tube drop-down list.
4. Drag the slider to select the Picture Tube size. You can reduce and enlarge from 10% to 250% of its original size.
5. Click the Options button. The Picture Tube Options dialog box opens.
6. The Cell Arrangement panel shows the arrangement of Picture Tube cells i the Picture Tube file. Use the default settings for Paint Shop Pro Picture Tubes. For more information on this panel, see the "Creating a Picture Tub section below.

Picture Tube Options Dialog Box



Picture Tube Options

Tube Name: Tarantula
File Name: SpdrSpin.tub

Cell Arrangement
Cells Across: 4
Cells Down: 3
Total Cells: 12
Cell Width: 200
Cell Height: 200

Placement Options
Placement Mode: Continuous
Step Size: 160
Selection Mode: Angular

☐ Save as default for this Picture Tube

7. In the Placement Options panel, select Random or Continuous placement mode to control whether the Picture Tubes appear in the image at random equal intervals.
8. Type a step size. As you decrease the step size, the distance between the intervals at which the tubes appear in the image decreases.

9. Paint Shop Pro selects the cells (images) it paints based on the mode you choose from the Selection Mode list:
   - The Random mode randomly selects images in the tube.
   - The Incremental mode selects the first image in the tube and repeats it only after it has selected all the images.
   - The Angular mode selects images based on the direction you drag the cursor as you paint.
   - The Pressure Mode uses pressure from a pressure sensitive pad to determine which image to select.
   - The Velocity mode selects images based on the speed you drag the cursor as you paint.
10. If you want these settings to become the new default settings for the tube, select the "Save as default for this Picture Tube" check box.
11. Click OK to close the dialog box.

Painting with a Picture Tube

To paint with a Picture Tube:

1. Select the layer on which you will paint the Picture Tube.
2. Click the Picture Tube tool on the Tool palette.
3. Select the options from the Control palette.
4. Position the cursor where you want to begin painting.
5. Click and drag the cursor to paint the Picture Tube. If you have chosen a Selection Mode option other than Random, move the cursor accordingly.

Creating a Picture Tube

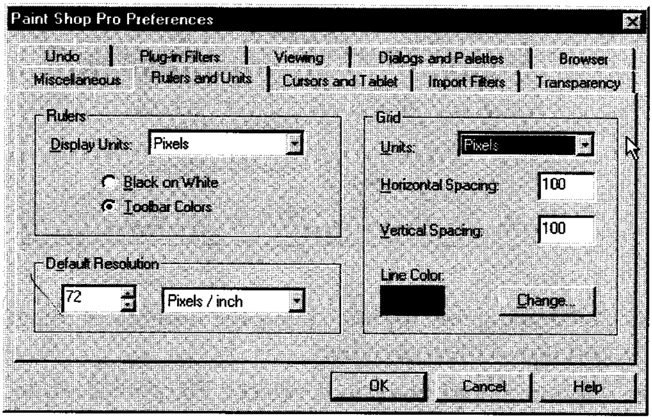
To create your own Picture Tubes, you create a grid of cells and then fill each cell with an image. The cells can be any size. Remember, though, that as the size of the cells increases, the Picture Tubes require more memory to use.

To create a Picture Tube file:

1. In the File menu, point to Preferences, and choose General Program Preferences. The General Program Preferences dialog box opens.
2. If necessary, click the Rulers and Units tab to bring it to the front.
3. In the Grid panel on the right side of the tab, type Horizontal and Vertical Spacing values in pixels. The values you enter become the length and height of the Picture Tube cell. Your images can be no larger than the cell size you select.

4 Click OK to close the dialog box.

Rulers and Units Tab


Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Rulers
Default Resolution
Grid
Change...
OK
Cancel
Help

Display Units: Pixels

○ Black on White
● Toolbar Colors

72 Pixels / inch

Units: Pixels

Horizontal Spacing: 100

Vertical Spacing: 100

Line Color: ■

5 From the File menu, choose New. The New dialog box opens.

6 In the Image Dimensions panel, type values for the width and height that multiples of the cell horizontal and vertical spacing. The number you type determines the total cells you can fill with images. For example, if the grid spacing is 100 pixels, you could create an image of 400 x 300 pixels. With a image this size, you will have 12 cells (4 across and three down).

7 Select Transparent for the Background Color.

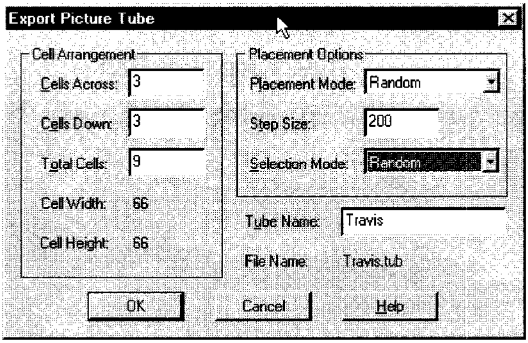
8 Click OK. A new image with visible grid lines appears in the workspace.

9 If the grid is not visible, choose Grid from the View menu.

10 Create the images of the Picture Tube. Place one image in each grid square Each square with the image becomes a Picture Tube cell.

11 After you have finished, open the File menu, choose Export, and then choo Picture Tube. The Export Picture Tube dialog box opens.

Export Picture Tube Dialog Box



Cell Arrangement

Cells Across: 3

Cells Down: 3

Total Cells: 9

Cell Width: 66

Cell Height: 66

Placement Options

Placement Mode: Random

Step Size: 200

Selection Mode: Random

Tube Name: Travis

File Name: Travis.tub

12 In the Cell Arrangement panel, enter the number of image cells you created across and down the image file.

13 In the Placement Options panel, select a Placement Mode. The mode can be changed when you use the Picture Tube.

14 Type the pixel width of the Picture Tube cell in the Step Size box.

15 To use a Selection Mode other than Random, select it from the list. For more information on Selection and Placement modes, see "Setting the Picture Tube Options," above.

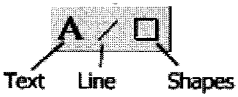
16 Type a name for the Picture Tube file.

17 Click the OK button.

Paint Shop Pro saves the file in the ".tub" format in the Tubes folder of the program and adds the file to the list of Picture Tubes on the Control palette.

RAWING TOOLS

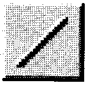
Paint Shop Pro Drawing and Text Tools



Line Tool

Use the Line tool to draw straight lines and Bezier curves. In a Bezier curve, the two end points anchor the line, and you shape the curve.

Line Tool Button

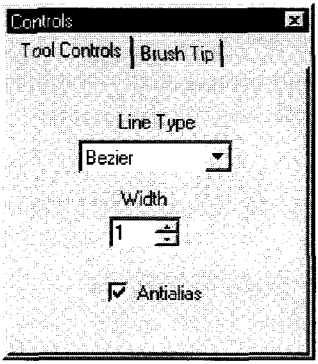


Setting the Line Tool Options

To set the Line tool options:

1. Activate the Line tool by clicking its button on the Tool palette.
2. Select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."
3. If the Control palette isn't visible, display it now.
4. If necessary, click the Tool Control tab on the Control palette to bring it to t front.
5. Select Normal or Bezier in the Line Type box.
6. Set the line's width in pixels.
7. If you want the lines to be antialiased, select the Antialias check box. If not, leave the check box empty. Antialiasing makes the edges of lines appear smoother.

Line Tools Control Tab



Line Type
Bezier
Width
1
☑ Antialias

Drawing a Normal Line

To draw a line:

1. Position the cursor on the image where you want the line to begin.
2. To draw a line at fixed angles in increments of 45°, press and hold the <Shi key.

3 Press and hold down the left or right mouse button:
   - Press the left mouse button to draw using the foreground color.
   - Press the right mouse button to draw using the background color.
4 Drag the cursor to where you want to end the line. A light line appears between the starting point and the cursor.
5 Release the mouse button. A line of the selected width and color appears between the two points.

Drawing a Bezier Curve

To draw a Bezier curve:

1 Position the cursor on the image where you want the line to begin.
2 Press and hold down the left or right mouse button:
   - Press the left mouse button to draw using the foreground color.
   - Press the right mouse button to draw using the background color.
3 Drag the cursor to where you want to end the line, and release the mouse. A light line appears as you drag.
4 Create the curve by clicking the mouse away from the line and dragging to shape the curve.
   - To create a semi-circular curve, click the mouse where you want to position the top of the curve and drag to shape it. Click again when it is positioned.
   - To create an "S" shaped curve, click and drag once on one side of the line and once on the other.
5 Click again. The second mouse click sets the curve shape and applies the appropriate color at the selected line width.

ape Tool

Shape Tool
Button

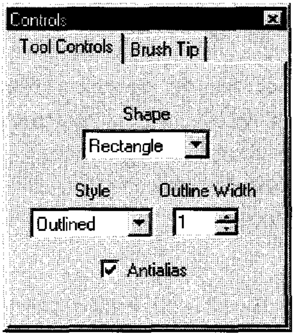
Setting the Shape Tool Options

To set the Shape tool options:

1 Activate the Shape tool by clicking its button on the Tool palette.
2 Select the foreground and background colors using one of the methods described in Chapter 6, "Working with Color."
3 If the Control palette isn't visible, display it now.
4 If necessary, click the Tool Controls tab on the Control palette to bring it to the front.

5 Select a shape – Rectangle, Square, Ellipse, or Circle – from the Shape box.

Shape Tools Control Tab



Shape: Rectangle

Style: Outlined

Outline Width: 1

☑ Antialias

6 In the Style box, select whether you want the shape to be outlined or filled i

7 Set the line's width in pixels.

8 If you want the lines to be antialiased, select the "Antialias" check box. If no leave the check box empty. Antialiasing makes the edges of lines appear smoother.

Drawing a Shape

To create a shape:

1 Place the cursor's crosshairs at any corner of the shape (or edge for the ellip and circle) that you want to draw.

2 Press and hold down the left or right mouse button:

- Press the left mouse button to draw using the foreground color.
- Press the right mouse button to draw using the background color.

3 Drag the cursor to create a shape:

- To draw a rectangle or a square, drag from one corner to the opposite corner.
- To draw a circle or an ellipse, drag from the center outward.

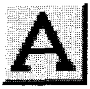
As you move the cursor, an outline of the shape appears.

4 When the outline is the size you want, release the mouse button. The shape appears configured with the selected options.

DDING TEXT TO AN IMAGE

Use the Text tool to add text to an image. The Text tool works differently than the other painting and drawing tools—the Text tool options are in a separate dialog box.

Text Tool Button

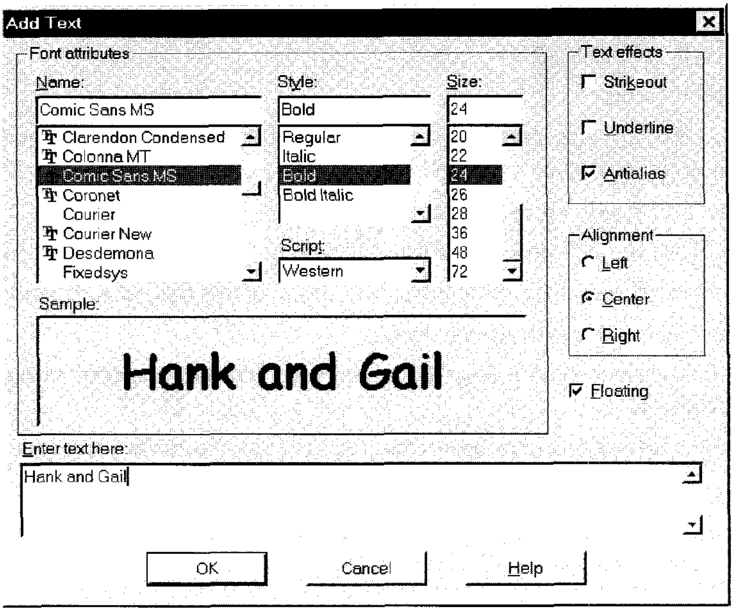


When adding text to an image, you can create it as a standard or floating selection. For a floating selection, you determine the color before adding the text—the current foreground color becomes the text color. For a standard selection, the text is the color of the area it appears in.

To create text:

1. Activate the Text tool by clicking its button on the Tool palette.
2. If you are adding the text as a floating selection, determine its color by selecting a foreground color. For help selecting a foreground color, see Chapter 6, "Working with Color."
3. Click the area of the image where you want the text to appear. The Add Text dialog box opens.

Add Text Dialog Box



Add Text

Font attributes

Name: Comic Sans MS

Style: Bold

Size: 24

Script: Western

Sample: Hank and Gail

Text effects

☐ Strikeout

☐ Underline

☑ Antialias

Alignment

○ Left

● Center

○ Right

☑ Floating

Enter text here: Hank and Gail

Clarendon Condensed
Colonna MT
Comic Sans MS
Coronet
Courier
Courier New
Desdemona
Fixedsys
Regular
Italic
Bold
Bold Italic
20
22
24
26
28
36
48
72
OK
Cancel
Help

1. In the Font Attributes panel, select the font name, style, size, and script by using the scrollbars and clicking an entry in the appropriate list box.
2. To add effects to the text, select their check boxes in the Text Effects panel. You can select three effects:
   - Strikeout places a line through the text.
   - Underline places a line under the text.
   - Antialiasing softens the jagged edges that can appear on bitmap text by partially filling in pixels. This effect is available only with grey scale an 24-bit color images.
3. Select left, right, or center alignment for the text. The alignment determines how multiple lines of text align with each other. The text is always centered horizontally and vertically on the point you click in the image.
4. Select the Floating check box if you want the text to be created as a floating selection.
   - If you select the Floating check box, the text will appear as a floating selection in the foreground color.
   - If you leave the Floating check box blank, the text will be appear as a standard-mode selection. The text will contain the colors of the area where the text appears.
5. In the large Enter Text Here text box, type the text you want to add to the image. The Sample area above it provides a preview.
6. Click the OK button. The dialog box closes, and the text appears on the ima as a selection.

NOTE: To add the text to an existing selection, hold down the <Shift> key whi clicking the OK button.

You can edit the text as you would a floating or standard selection. You can fill with a pattern, clone part of another image into it, create a mask from it, or add drop shadow. If adding a drop shadow, add it after you move the text to the fi location and while it is still a floating selection. For help adding a Drop Shado see Chapter 11 and the Tutorial Lesson 7.

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CHAPTER

Working with Layer

WHAT IS A LAYER?

A layer is an individual level of an image. Think of it as a transparent sheet. In multi-layered image, these sheets are placed in a stack. When you apply paint t a layer, it is like covering one of these sheets. Some layers are completely cover in paint; others contain unpainted areas. The areas you haven't covered remain transparent, and you can see the layer underneath. You can add and delete layers, rearrange their order, and blend their pixels in a variety of ways. Until you merge the layers, they remain independent and can be edited without affecting the rest of the layers.

A newly created Paint Shop Pro image consists of one layer, the background layer. This is analogous to the canvas of a painting; every image must have at least one layer. Paint Shop Pro supports up to 64 layers per image. The actual number of layers you can create may be further limited by the amount of memory in your computer.

The layer you are editing is called the current layer. When you make a layer th current layer by clicking its button, it is made visible; however, a visible curren layer will be transparent if it contains no data. As you work with images containing multiple layers, before you start editing make sure that the appropriate layer is the current layer. Look at the stack of Layer buttons on the Layer palette. The current layer's Layer and Visibility buttons are "pressed in."

Paint Shop Pro provides the Layer palette, the Layer Properties dialog box, and the Layers menu for working with layers. They contain many of the same functions; use the method you prefer.

NOTE: An image must be a grey scale or 24-bit color image to contain more th one layer. You can increase an image's bit depth if necessary.

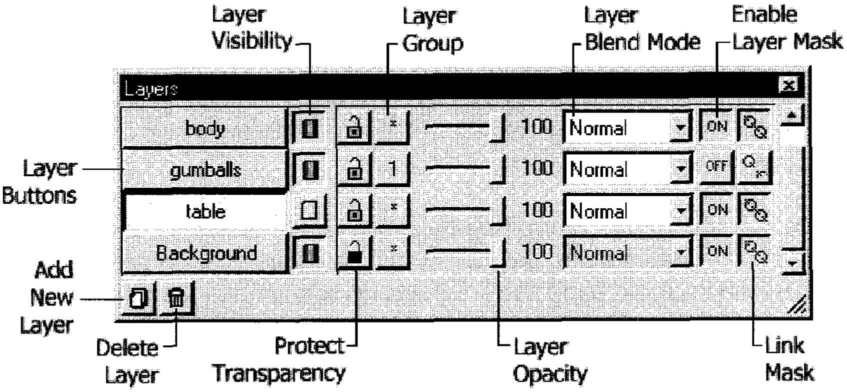
AYER PALETTE

The Layer palette provides quick access to many of the commands and options in the Layers menu and Layer Properties dialog box. Unlike the menu and dialog box, the palette allows you to change the options for all the layers in an image simultaneously.

View/Hide Layer
Palette Button

If the palette is not visible, do one of the following to display it:

- Press <L>.
- Click the View/Hide Layer button on the toolbar.
- From the View menu, choose Toolbars to open the Toolbars dialog box. In the Toolbars dialog box, select the "Layer Palette" check box, and then click OK.


Layer Visibility
Layer Group
Layer Blend Mode
Enable Layer Mask
Layers
body
gumballs
table
Background
1
100
Normal
ON
OFF
Layer Buttons
Add New Layer
Delete Layer
Protect Transparency
Layer Opacity
Link Mask

AYER PROPERTIES DIALOG BOX

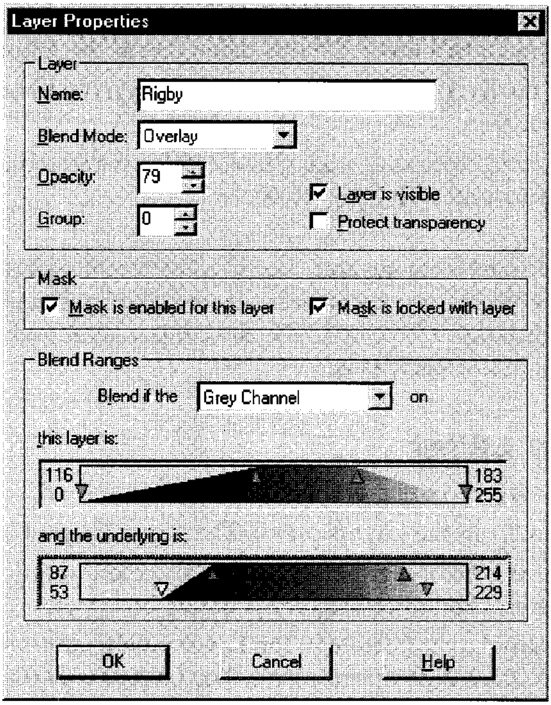
Use the Layer Properties dialog box to select and edit the attributes of individual layers. The Layers Properties dialog box automatically opens when you create a new layer using one of the following methods:

- Clicking the Add New Layer button on the palette.
- Right-clicking a Layer button and choosing New from the pop-up menu.
- Choosing the New command from the Layers menu.

The upper half of the dialog box contains the Layer and Mask panels. The options within them, except for the Layer Name, can also be controlled using the Layers palette. The default names for new layers are "*Layer1*," "*Layer2*," etc.

When you create a new layer, type a name that will allow you to recognize the layer contents easily.

Layer Properties Dialog Box



Layer Properties

Layer

Name: Rigby

Blend Mode: Overlay

Opacity: 79

Group: 0

☑ Layer is visible

☐ Protect transparency

Mask

☑ Mask is enabled for this layer

☑ Mask is locked with layer

Blend Ranges

Blend if the Grey Channel on

this layer is: 116 0 183 255

and the underlying is: 87 53 214 229

After you have created a layer, you can re-open its Layer Properties dialog box by doing one of the following:

- Clicking its Layer button and choosing Properties from the Layers menu.
- Right-clicking its Layer button and choosing Properties from the pop-up menu.
- Double-clicking its Layer button.

ckground and Background Layer

When you create a new image with a background color, you create a background layer of the selected color. In order to move a background layer in the stack, you must first promote it to a layer. Do this using one of the following methods:

- Right-click the background and choose the Promote to Layer command from the pop-up menu.
- Open the Layer Properties dialog box. Notice that the dialog box is named Promote Layer and Edit Properties.

When you create a new image and choose transparent as the background color, the new image appears as a transparent layer floating above the checkered background. It is labeled "Layer 1." Because it is a layer and not a background, you can move it in the stack as is.

eating a New Layer

To create a new layer, do one of the following:

- Choose New from the Layers menu. The Layer Properties dialog box opens.
- Click the Add New Layer button at the lower left of the Layers palette. The Layer Properties dialog box opens.
- Right-click any Layer button on the Layer palette and choose New from the pop-up menu. The Layer Properties dialog box opens.
- Click the New Layer button on the toolbar.
- <Shift> + Click the Add New Layer button on the Layer palette. A new button appears in the Layer palette, bypassing the Layer Properties dialog box.

New Layer
Button

ding a Layer

There are several ways to add a layer to an image:

- Promote a selection to a layer by choosing the Promote to Layer command from the Selections menu.
- Promote a floating selection to a layer by choosing the Promote to Layer command from the Selections menu.
- Promote a floating selection to a layer by right-clicking the Floating Selection button and then choosing Promote to Layer from the pop-up menu.
- Cut or copy a selection and then press <Ctrl>+<L> or choose Paste as New

Layer from the Edit menu.

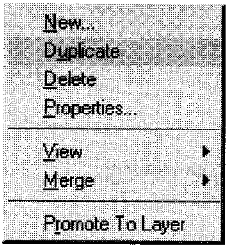
- Drag an image thumbnail from the Browser into an open image.
- Drag a Layer button from the Layer palette of the first image and drop it int the second image.

uplicating a Layer

There are 4 ways to duplicate a layer:

- Click its Layer button, and then choose Duplicate from the Layers menu.
- Right-click its Layer button, and then choose Duplicate from the pop-up menu.
- Drag its Layer button over the Add New Layer button at the lower left of the Layer palette.
- Click its Layer button, choose Copy from the Edit menu to copy the layer, and then choose Paste as New Layer from the Edit menu.

Layer Palette Pop-Up Menu

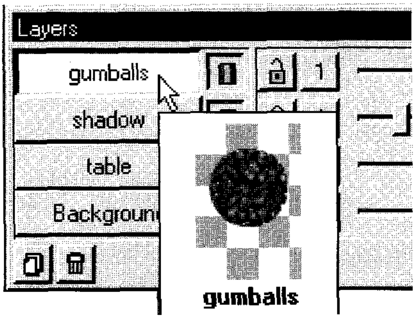


The duplicated layer is placed in the image above the original layer, and its Lay button appears on the Layers palette above the Layer button of the original laye

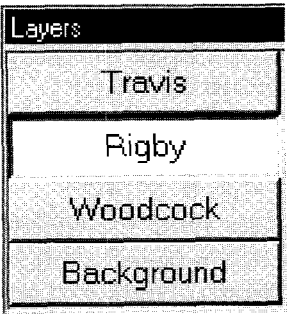
Using the Layer Palette Layer Button

- Each layer in an image has a corresponding Layer button on the Layer palet that displays the layer name. Click a Layer button to make its layer active.
- When you add a layer, a Layer button corresponding to this layer appears c the palette; when you delete or merge a layer, its Layer button disappears.
- When you right-click a Layer button, a pop-up menu containing many of th same commands as the Layers menu opens.
- When you pause your cursor over a Layer button, a thumbnail of that layer appears. Move the cursor to close the thumbnail.

Layer Thumbnail



Layer Buttons



ewing Layers

Viewing All Layers

To make all the layers in an image visible, do one of the following:

- Click the Visibility buttons on the palette until all the layers are visible. When a layer is visible, its Visibility button contains a red, green, and blue square.
- Choose All from the View command in the Layers menu.
- Right-click the Layers palette, and choose All from the View command in the pop-up menu.

Viewing Individual Layers

To view only a specific layer, do one of the following:

- Click a Layer button to select a layer, and choose Current Only from the View command in the Layers menu.
- Right-click the Layer button, and choose Current Only from the View command in the pop-up menu.
- Click the Visibility buttons on the palette until only that layer remains visible. When a layer is visible, its Visibility button contains a red, green, and blue square. You can use this method to make as many layers visible as you want.

NOTE: Making a layer current automatically makes it visible, but a current layer without data will appear transparent.

Moving a Layer within an Image

To move a layer up or down in the stack of layers within an image, click its button on the Layer palette, and then do one of the following:

- Choose Move Up or Move Down from the Arrange command of the Layer menu. Each time you choose the command, the layer moves up or down o level. Choose Bring to Top to place the layer at the top; choose Send to Bottom to place it at the bottom or just above the background layer if there one.
- On the Layer palette, drag the Layer button up or down to a new position the stack.

NOTE: You must promote the background layer before you can replace it with another layer. Use the Layer Properties dialog box or the Layer palette pop-up menu.

Renaming a Layer

To rename a layer:

1. Open the Layer Properties dialog box.
2. Type a new name in the Name box.
3. Click OK to close the dialog box.

Copying a Layer to Another Image

To copy a layer into another image, do one of the following:

- Cut or copy a selection from the first image, and then choose Paste as New Layer from the Edit menu of the second image.
- Drag a Layer button from the Layer palette of the first image and drop it i the second image.
- Click the Layer button of the first image and choose Copy from the Edit menu. Place it into the second image by choosing Paste as New Layer fror the Edit menu of the second image.

The new layer is placed above the current layer of the second image. Its Layer button appears at a corresponding position on the Layer palette.

Copying Layers Using the Browser

To copy the layers of one image into another:

1. Open the image file that will receive the new layers.
2. Open the Browser.

3 Navigate to and select the folder containing the file whose layers you want to copy.
4 Drag the thumbnail over the open image.
5 Release the mouse button.

The layers are copied into the open image as a linked group. To unlink the layers so that they can be moved separately, click the Layer Group buttons on the Layer palette.

YER OPTIONS

sing the Smart Mover Tool

NOTE: You can drag a layer anywhere in the image window without cropping it, even off the canvas.

The Mover tool does not automatically move the current layer – it moves the uppermost layer that contains data. When you click an image, if you click a transparent area of the top layer, the mover tool ignores the layer and searches the other layers. When it reaches a layer containing non-transparent pixels, it selects and moves this layer.

To limit the Mover tool to the current layer, press and hold the <Shift> key while you click the image and drag the layer.

otecting Transparent Areas of a Layer

NOTE: You can lock a layer transparency any time; remember to unlock it before trying to add to the layer.

The Protect Transparency option restricts the editing of a layer to the pixels that already contain data. You can edit this data, but you can not cover any transparent areas.

To control this option, do one of the following:

- Click the Protect Transparency button on the Layer palette.
- Select or clear the "Protect Transparency" check box in the Layer Properties dialog box.

When the option is selected, the padlock on the button is colored red and is closed. When the option is not selected, the padlock is colored green and is open.

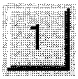
Protect Transparency Button On

Protect Transparency Button Off

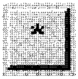
Grouping Layers

The Layer Group option lets you group layers so that they move as a single laye When you drag a thumbnail from the Browser and release it over an image, the layers are added to the image as one group.

Layer Group Button On



Layer Group Button Off



All the layers with the same number on their Group buttons belong to a single group. Each time you click a Group button, it changes to the next valid number A layer with an asterisk (*) on its button does not belong to any group.

To group layers in an image, click their Group buttons.

Changing Overall Layer Opacity

NOTES: You can change the opacity of a layer without first selecting it.

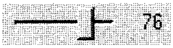
The overall opacity of a layer does not change its pixels' transparency values.

To set the opacity of a layer, do one of the following:

- Drag the Opacity slider on the palette.
- Enter a value for the Opacity in the Layer Properties dialog box.

At an overall opacity of 100, a layer is totally opaque and none of the underlying layer shows through. This is the default value for layers. As you drag the slider to the left to reduce the opacity, the underlying layer begins to appear. At an opacity of 75, the image displays 75% of the upper layer and 25% of the underlying layer. At 0 opacity, the layer is transparent, and you see only the underlying layer.

Layer Opacity Slider on Layer Palette



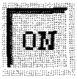
abling a Layer Mask

Use the Enable Layer Mask option to control whether a layer is viewed with or without its mask. When this option is on, the layer mask determines the appearance of the layer. When the option is off, the mask is "inactive" and has no effect on the layer's appearance.

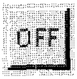
To control this option, do one of the following:

- Click the Enable Layer Mask button on the Layer palette.
- Select or clear the "Mask is enabled for this layer" check box in the Layer Properties dialog box.

Enable Layer Mask Button On



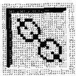
Enable Layer Mask Button Off



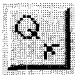
king Masks to Layers

Use the Link Mask option to move a mask and layer together in an image. When this option is on, the flip, rotate, and mirror commands move the mask and layer as one unit. When the option is off, the layer and mask move independently.

Link Mask Button On



Link Mask Button Off



To control this option, do one of the following:

- Click the Link Mask button on the Layer palette.
- Select or clear the "Mask is locked with layer" check box in the Layer Properties dialog box.

DIFYING A LAYER

plying Effects, Deformations, and Filters

NOTE: Before applying a command, make sure the appropriate layer is the current layer.

You can apply the Flip, Mirror, Rotate, Deformation, Filter, and Effect commands to layers. See Chapter 11 for information on applying them.

Matting a Layer

When a layer is created by removing it from an image, some of the pixels surrounding the border are included, especially when it has been antialiased c feathered. Matting cleans up the border by removing these pixels.

Removing Black and White Matte

NOTE: The Matting commands can only be applied to a grey scale or 24-bit cc image.

When you promote a selection with white or black at the edges into a layer, th edges contains black and white.

If the promoted layer is above a colored layer, the white or black needs to be removed:

- To remove the black matte, choose Remove Black Matte from the Matting command of the Layers menu.
- To remove the white matte, choose Remove White Matte from the Mattin command of the Layers menu.

The Defringe Command

NOTE: The Defringe command can only be applied to a grey scale or 24-bit cc image.

Defringing bleeds non-feathered pixels in the layer edges outward and over tl "jaggies" in the feathered part of the selection. Use defringe when the background of a layer is a color (not black or white).

To defringe a layer:

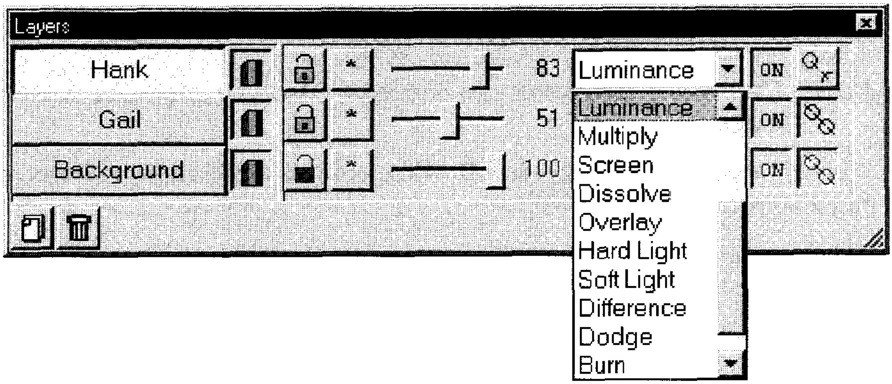
1. Choose Defringe from the Matting command of the Layers menu. The Defringe dialog box opens.
2. Enter the pixel width you want to defringe.
3. Click OK. The dialog box closes, and Paint Shop Pro defringes the layer.

LAYER BLEND MODES

The layer blend modes are methods of combining the pixels from the current layer with the ones under it. You are not combining the layers permanently; y are previewing the way they will appear if combined. To combine layers permanently, use the Merge command in the Layers menu.

The current layer whose blend mode you are changing is the Blend layer. The layer is blended into the result of the combination of underlying layers, not just the layer directly underneath it.

Layer Blend Mode Options


Layers
Hank
Gail
Background
83
51
100
Luminance
Luminance
Multiply
Screen
Dissolve
Overlay
Hard Light
Soft Light
Difference
Dodge
Burn
ON
ON
ON

end Mode Options

There are 17 blend modes:

Normal	Pixels on the current layer are blended with the underlying layer only by varying the opacity.
Darken	Pixels in the selected layer that are darker than the underlying layers are applied to the image. Pixels lighter than the underlying layers disappear.
Lighten	The lighter of the blend and base colors is displayed.
Hue	Applies the hue of the selected layer to the underlying layers.
Saturation	Applies the saturation of the selected layer to the underlying layers.
Color	Applies the hue and saturation of the selected layer to the image. The luminance of the underlying layers is not affected.
Luminance	Applies the luminance values of the selected layer to the luminance values of the underlying layers. The color is not affected.
Multiply	Combines the colors of the selected layer with the underlying layers to produce a darker color. Multiplying any color with black produces black; multiplying any color with white leaves the color unchanged.

Screen	Lightens the underlying color by multiplying the inverse of th blend and base colors. The result is a color that is the same or lightened version of the base color.
Dissolve	Randomly replaces the colors of some pixels on the selected la with those of the layer underneath to create a speckled effect. The number of pixels replaced is determined by the layer's opacity, with more pixels being replaced as the opacity decreases.
Overlay	Combines two previous blend modes. If the underlying layers color channel value is less than half the maximum value, the Multiply blend mode is used. If the color channel value is grea than or equal to half, the Screen blend mode is used. This show patterns or colors of the upper layer while preserving the shadows and highlights of the lower layers.
Hard Light	Combines two previous blend modes. If the selected layer's co channel value is less then 128 (half of the maximum value), th Multiply blend mode is used. If the selected layer's color chan value is greater than or equal to 128, the Screen blend mode is used. This mode is generally used to add highlights or shadow
Soft Light	Combines two previous blend modes. If the selected layer's co channel value is less than half the maximum value, the Burn blend mode is used. If the color channel value is greater than equal to half, the Dodge blend mode is used. This mode is generally used to add soft highlights or shadows.
Difference	Subtracts the selected layer's color from the color of the underlying layers, depending on which is lighter.
Dodge	The lightness values of the colors in the Blend mode lighten th colors of the underlying layers, lightening the image. Light col produce the most lightening; black has no effect.
Burn	The lightness values of the colors of the Blend layer reduce the lightness of the underlying layers, darkening the image.
Exclusion	Creates an effect similar to but softer than the Difference mod

The Multiply, Screen, Difference, and Exclusion modes will produce the same results no matter which layer is on top.

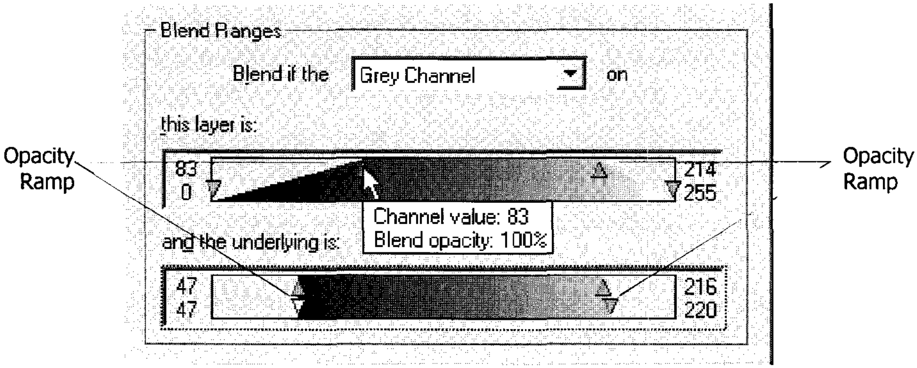
nd Ranges

When you select a Blend Mode from the Layer Properties dialog box or Layer palette, Paint Shop Pro applies the blend to all the pixels in the layers. The Blend Ranges feature gives you more control. Drop colors out of the current layer and make other colors show through by setting an opacity based on brightness or channel value.

To set the Blend Ranges feature:

1. Select the Blend layer.
2. Open the Layer Properties dialog box.
3. In the Blend Ranges panel, select a channel for Paint Shop Pro to use for comparing the layers. Your choices are Grey, Red, Green, and Blue. When the Grey channel is selected, the lightness values of the layers determine opacity.
4. Set the opacity ramp for the channel. The upper arrows indicate the values at which the opacity will be 100%. The lower arrows indicate the values at which the opacity will be 0%. The values on the left side indicate the ramp up values, while the values on the right side indicate the ramp down values. For example, in the illustration below, the Blend layer's opacity is 100% between lightness values of 83 and 213, and falls off at the darkest and lightest area. The Blend Opacity for the Underlying layer is 100% between lightness values of 47 and 216 and none at other values.
5. Click OK. Paint Shop Pro applies the blend only to the pixels that fall within the range.

Blend Ranges - Layer Properties Dialog Box



Blend if the Grey Channel on this layer is:

Channel value: 83
Blend opacity: 100%

and the underlying is:

MERGING LAYERS

Merging Visible Layers

Merging layers combines multiple layers into one, which decreases the memo requirements of an image. After layers are merged, they can no longer be edi separately; they have been converted into a single layer.

To merge visible layers:

1. On the Layer palette, make the layers you want to merge visible and hide others.
2. Do one of the following on the Layer palette:
   - Right-click one of the layers to be merged, and choose Merge Visible from the Merge command of the pop-up menu.
   - Right-click one of the layers to be merged, and choose Merge Visible from the Merge command of the Layers menu.

Merging All Layers (Flattening)

Note: The transparent areas of the image are replaced with white when the image is flattened. To retain the transparency, use the Merge Visible Layers command.

Flattening an image merges all the layers into one background layer. Flattene images require much less memory than images with several layers, but are m difficult to edit. Because many file formats will only save flattened images, it convenient to save images containing layers in the ".psp" format.

To flatten an image, do one of the following:

- Choose Merge All (Flatten) from the Merge command of the Layers men
- On the Layer palette, right-click any layer, and choose Merge All (Flatten from the pop-up menu.

DELETING A LAYER

To delete a layer, choose Delete from the Layers menu or do one of the follow on the Layer Palette:

- Right-click the Layer button, and choose Delete from the pop-up menu.
- Click the Layer button, and then click the Delete Layer button (trash can)

the lower left of the palette. A message appears asking you to confirm this action. Click Yes.

- Drag the Layer button to the Delete Layer button, and release the mouse. A message appears asking you to confirm this action. Click Yes.

The deleted layer's button disappears from the Layer palette.

CHAPTER 1

Using Mask

Masks enable you to hide and reveal parts of a layer and to apply special effects with precision. Masks can be created from selections, from images, from the luminance values of images, and from scratch. They can cover a layer completel or with varying opacity. Because they are grey scale, they can also be saved int alpha channels.

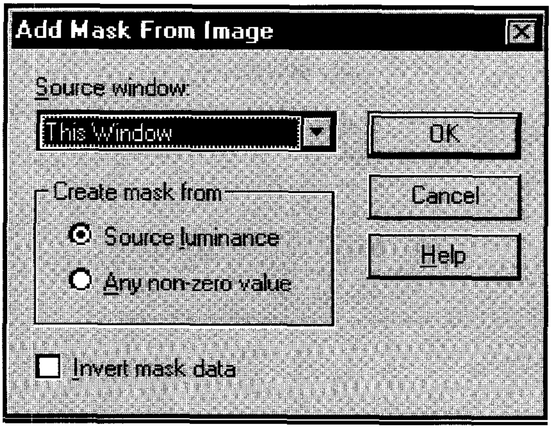
CREATING A MASK

From an Image

To create a mask from an image:

1. Select the layer to which you are adding the mask.
2. In the Masks menu, choose New, and then choose From Image. The Add Mask From Image dialog box opens.
3. Select the source window from the drop-down list. The source window is t image from which you will create the mask. It can be any image window open in the workspace.

Add Mask from Image Dialog Box



Add Mask From Image

Source window: This Window

Create mask from
● Source luminance
○ Any non-zero value

☐ Invert mask data

4. In the Create Mask From panel, select the value Paint Shop Pro will use to create the mask:
    - With Source Luminance, the luminance value of the pixel color determines the degree of masking. The lighter colors produce less masking.
    - With Any Non-zero Value, there is no gradation to the masking. Pixels with color are completely masked; pixels without color have no masking.
5. If you want the mask to be created from the inverse of the values, select the "Invert mask data" check box.
6. Click OK. Paint Shop Pro creates a mask. On the Layer palette, an asterisk appears on the masked layer's button to indicate the layer has been modified.

NOTES: After you add a mask, you will not necessarily see a change in the image.

To view the mask using the ruby overlay, choose View Mask from the Masks menu.

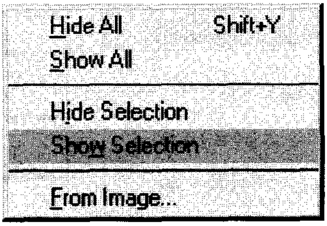
m a Selection

NOTE: When you create a mask from a selection, the area selected remains a selection until you chose the Select None command.

To create a mask from a selection:

1. Make a selection.
2. In the Masks menu, choose New, and then choose Hide Selection or Show Selection.
    - With Hide Selection, the selection is masked.
    - With Show Selection, everything except the selection is masked.

New Mask Menu



From a Channel

When you split an image into its RGB, HSL, or CMYK channels, you can creat masks from any of the resulting images.

To create a mask from an image's channel:

1 Split the image into channels using the Channel Splitting command in the Colors menu.

2 Create a selection from one of the images using the Select All command fr the Selections menu..

3 Choose the Save to Alpha command in the Selections menu.

4 Name and save the split channel image.

You can now load this channel as a mask. For help loading the selection as a mask, see the "Loading from the Alpha Channel" section later in this chapter.

From the Entire Image or Layer

At times you will want to apply a mask to the entire image and then edit it to alter areas.

To mask the entire image, Open the Masks menu, and from the New submenu choose Hide All or Show All:

- With Hide All, the entire layer is masked. You can then edit the mask to remove any area you want uncovered (unmasked).
- With Show All, a mask is created but the entire area is the non-masked pa of it. You can then edit the mask to add any area you want covered (mask

EDITING A MASK

NOTE: Remember to choose the Edit command from the Masks menu before painting so that you edit the mask, not the image.

When you edit a mask, you change either the areas or the level of masking. Fo example, painting over an object to mask it changes the area, while making a Gradient Fill edits the level of masking.

Remember that a mask is a grey scale image with 256 levels of grey. The levels of grey correspond to levels of masking. Select black and white as the active colors to mask and erase the mask at 100%.

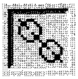
To edit a mask:

1. Choose the View Mask command from the Masks menu to see the mask using the ruby overlay. A check mark appears next to the command.
2. Choose the Edit command from the Masks menu. A check mark appears next to the command.
3. Use the painting tools to alter the masked area:
   - Paint with white to remove masking.
   - Paint with black to add masking.
4. Paint with lighter and darker greys to add various levels of masking.
5. After you have finished editing the mask, choose Edit from the Masks menu. The check mark disappears.

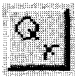
nking to a Layer

Link a mask to a layer to move the mask as you drag the layer. To link a mask to its layer, click the Link to Mask button on the Layer Palette.

Link Mask to Layer Button On



Link Mask to Layer Button Off



reating a Gradient Mask

To make a gradient mask:

1. Create a mask using any method described above.
2. If the mask is not visible, choose View Mask from the Masks menu.
3. From the Masks menu, choose Edit.
4. Select black and white as the foreground and background colors.
5. Click the Flood Fill tool on the Tool palette.
6. On the Tool Controls tab of the Control palette, select one of the gradient fills from the Fill Style list.
7. Click the Options button. The Flood Fill Options dialog box opens.

8 Configure the gradient. See Chapter 8, "Using the Painting and Drawing Tools," for help with gradient fills.

9 Click OK to close the Flood Fill Options dialog box.

10 In the image, click the mask. The mask becomes a gradient mask.

11 To apply the mask permanently, choose Delete from the Masks menu, and when prompted, merge it into the current layer.

AVING A MASK

Paint Shop Pro lets you save a mask in two ways:

- As a file on your hard drive with the ".msk" extension
- As an alpha channel within the image

When you save a selection in the ".msk" format on your hard disk, you save it a a separate file that Paint Shop Pro can later load as an image.

An alpha channel is a channel that saves mask and selection information. When you save a mask as an alpha channel, you save it as a grey scale bitmap within the image. An advantage of the ".psp" format is that the files hold the alpha channels within the image. The ".tif" and ".tga" file formats can hold one alpha channel; almost all the others will not hold any.

aving to a Disk

Paint Shop Pro has a mask file format, ".msk," it uses when saving a mask to th hard disk.

To save a mask to the hard disk:

1 Choose Save to Disk from the Masks menu. The Save Mask Channel dialog box opens.

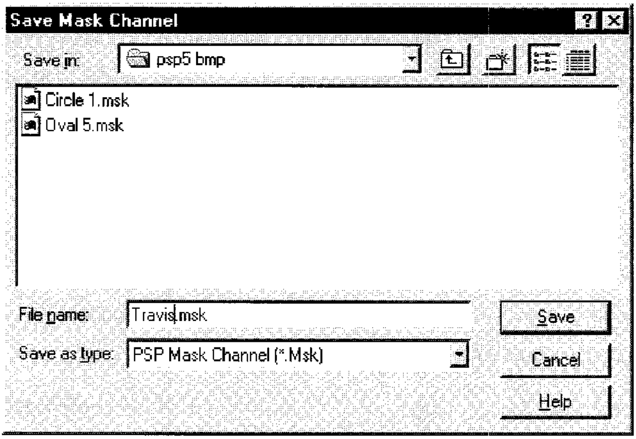
2 Navigate to the folder in which you want to save your mask.

3 Type a file name for the mask in the File Name box.

4 Click OK.

5 The Save Mask Channel dialog box closes, and Paint Shop Pro saves the mask as a ".msk" file.

Save Mask Channel Dialog Box


Save Mask Channel
Save in:
File name:
Save as type:
Save
Cancel
Help

Save in: psp5 bmp

Circle 1.msk
Oval 5.msk

File name: Travis.msk

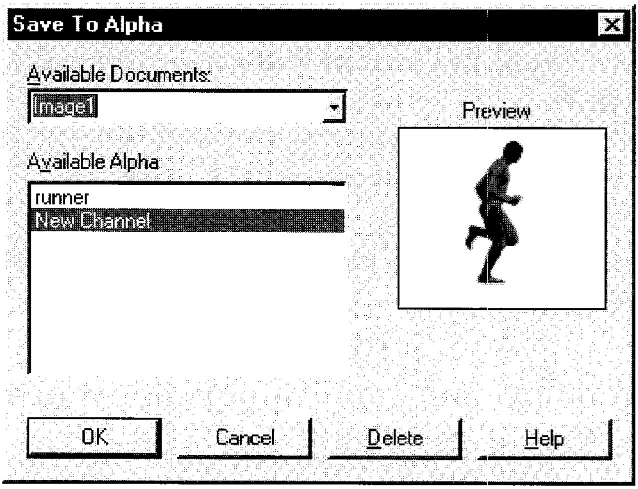
Save as type: PSP Mask Channel (*.Msk)

Saving a Mask to the Alpha Channel

To save a mask to an alpha channel:

1 Choose Save to Alpha Channel from the Masks menu. The Save to Alpha dialog box opens. The current image name appears in "Available Documents," and the Preview box displays its thumbnail.

Save to Alpha Dialog Box

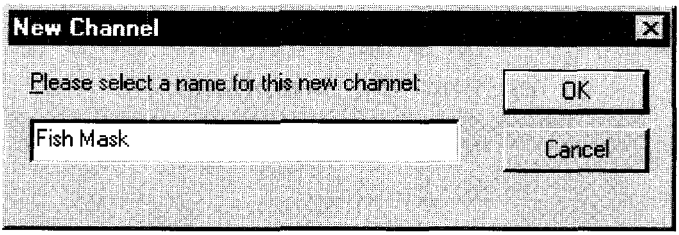

Save To Alpha
Available Documents:
Available Alpha
Preview
OK
Cancel
Delete
Help

Available Documents: image1

Available Alpha:
runner
New Channel

2 In the Available Alpha list, click the New Channel selection.
3 When the New Channel box opens, type a name for this mask.
4 Click OK. The mask is saved to the alpha channel, and both boxes close.

New Channel Box



Please select a name for this new channel: Fish Mask

NOTE: After you have saved the mask, it still appears in the image. To remove it, choose Delete from the Masks menu and, when prompted, do not merge it into the layer.

Although the mask no longer affects the image, it is still in the image's alpha channel.

OADING A MASK

oading from a Disk

To load a mask from the hard disk or another disk connected to your computer:

1 Click the layer button of the layer on which you want to place the mask.
2 From the Masks menu, choose Load from Disk. The Load Mask Channel dialog box opens.
3 Navigate to the file you want to load. Masks are saved in the ".msk" format.
4 Click to highlight the file. Its name appears in the File Name box.
5 Click Open. The dialog box closes, and the mask loads into the image.

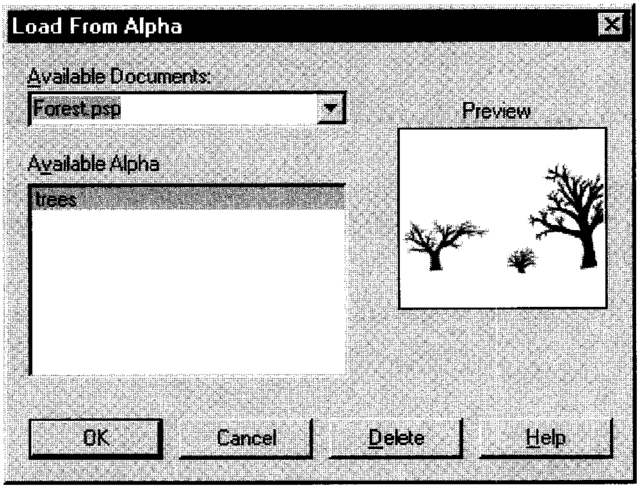
oading from the Alpha Channel

Selections and masks are both saved to alpha channels, so you can load a mask as a selection. You can load a selection or mask from the alpha channel of the current active image or any other image open in the workspace.

To load a mask from the alpha channel:

1. If the image contains more than a background layer, select the layer on whic you want to place the mask. For help selecting a layer, see Chapter 9, "Working with Layers."
2. From the Masks menu, choose Load From Alpha Channel. The Load From Alpha dialog box opens.

Load from Alpha Channel Dialog Box



Available Documents: Forest.psp

Available Alpha: trees

3. To load a mask from the active image, leave the current image name in "Available Documents." To load a mask from another image, highlight its fi name.
4. In the Available Alpha list, click the selection or mask you want to load. A preview of it appears to the right of the list. You can view any selection or mask by clicking its name.
5. After you have chosen a mask or selection, click OK. The dialog box closes, and the mask loads into the image.

ELETING A MASK

Deleting a mask from the image and deleting it from the alpha channel are two separate functions. When deleting a mask from the image, you can merge it into the image so it becomes a permanent part of the image. Deleting a mask from a layer does not delete it from the alpha channel.

eleting a Mask from a Layer

To delete a mask from a layer:

1. Choose Delete from the Masks menu. You will be prompted to merge the mask with the layer.
2. Click No to remove the mask from the layer. Click Yes to merge the mask into the layer.

eleting a Mask from the Alpha Channel

To delete a mask from an alpha channel:

1. Choose Load From Alpha Channel from the Masks menu. The Load From Alpha dialog box opens.
2. Select the image containing the mask to be deleted from the "Available Documents" list.
3. Select the mask to be deleted from the Available Alpha list. The preview displays the selected mask.
4. Click the Delete button.
5. At the prompt message, click the Yes button. Paint Shop Pro closes the dialo box and deletes the mask.

CHAPTER 11

Manipulating Images

Paint Shop Pro provides several methods for enhancing and creating special effects in images. Most of these commands can be applied only to grey scale and 24-bit color images. If the command cannot be done at the current color depth, the command will be disabled or greyed-out. If necessary, increase the image color depth before applying the command. For help increasing the color depth, see Chapter 7, "Making Color Adjustments."

ipping and Mirroring

NOTE: You can apply the Flip and Mirror commands to selections, layers, and images of any color depth.

These commands reverse the orientation of the image along the vertical and horizontal axes.

Flip Command

Flip Button

The Flip command reverses the selection, layer, or image vertically. What was the top becomes the bottom, and vice-versa.

To use the command, choose Flip from the Image menu or click the Flip button on the toolbar.

Image Before

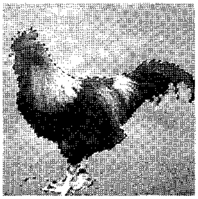
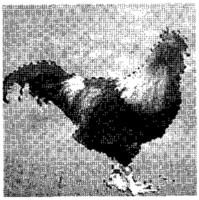


Image Flipped

Image Mirrored



Mirror Command

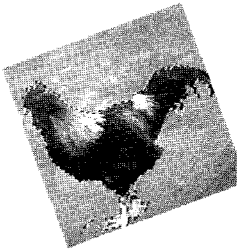
Mirror Button

The Mirror Command reverses the selection, layer, or image horizontally. What was the left side becomes the right side, and vice-versa.

To use the command, choose Mirror from the Image menu or click the Mirror button on the toolbar.

Rotating

Image Rotated



NOTE: You can apply the Rotate commands to floating selections, layers, and images of any color depth.

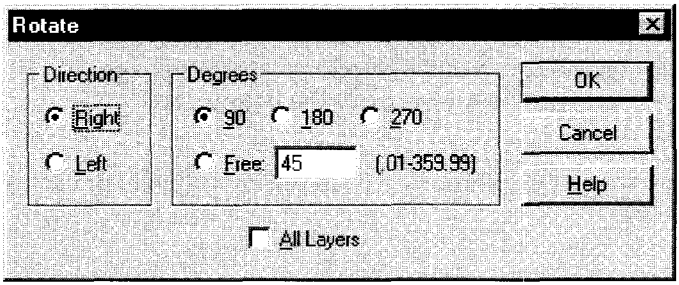
The Rotate command spins a selection, layer, or image in either direction around its center point.

To rotate an image, layer, or floating selection:

1. From the Image menu, choose Rotate or click the Rotate button on the toolbar. The Rotate dialog box opens.
2. Select the direction of rotation in the Direction panel by clicking the direction's button or its text. Right rotates clockwise; left rotates counter-clockwise.

Rotate Button

Rotate Dialog Box



Rotate

Direction
● Right
○ Left

Degrees
● 90 ○ 180 ○ 270
○ Free: 45 (.01-359.99)

☐ All Layers

3. Select the degrees of rotation in the Degrees panel:
   - To rotate 90, 180, or 270, click the degree's button or its number.
   - To select any other degree of rotation, type the number in the Free box.
4. Select the All Layers check box to rotate all the layers of a multiple layer image. When this check box is selected or when the image consists of a single background layer, the canvas size changes to fit the rotated image. Leave the box unchecked to rotate only the active layer.

5 After you have finished selecting the settings, click the OK button. The Rotat dialog box closes and the image rotates.

FFECTS

uttonize

NOTE: The Buttonize effect can be applied only to grey scale and 24-bit color images.

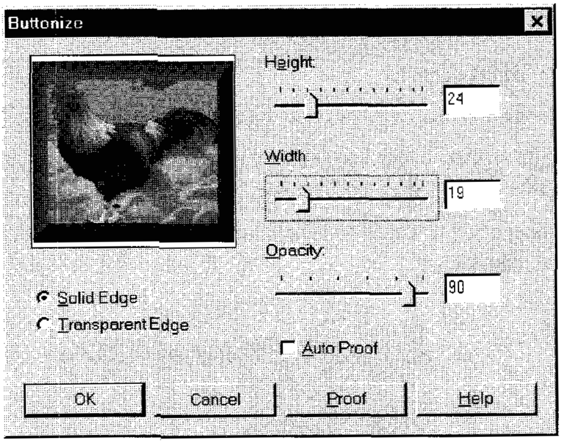
Add interest to your Web page by creating square or rectangular buttons from any image or selection. The Buttonize command applies a three dimensional edg that makes the image or selection appear raised. The edge can be either transparent, allowing the underlying image to show through, or opaque. The background color is used for an opaque edge.

To create a button:

1 Select a background color to create a button with an opaque edge.

2 In the Image menu, choose Buttonize from the Effects submenu. The Buttonize dialog box opens.

Buttonize Dialog Box



Buttonize

Height: 24

Width: 19

Opacity: 90

● Solid Edge

○ Transparent Edge

☐ Auto Proof

3 Use the Preview to view the button as you configure it. To update the original image as you change the settings, select the "Auto Proof" check box. (Paint Shop Pro applies the settings faster without "Auto Proof" selected.)

4 Select the solid colored or transparent edge option.

5. Select a height in pixels for the button's top and bottom edge using the Height slider.
6. Select a width in pixels for the button's left and right edge using the Width slider.
7. Set the opacity of the edge. Dragging the slider to the right increases the opacity.
8. If you did not select the "Auto Proof" check box, click the Proof button to see the effect on the image.
9. Click OK to apply the settings.

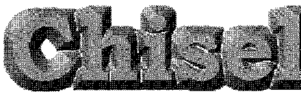
hisel

NOTES: The layer must contain a selection or transparency to create the Chisel effect from it.

The Chisel effect can be applied only to grey scale and 24-bit color images.

The Chisel effect adds a three-dimensional border around a selection or layer to make it appear as though it were cut out of stone. The chiseled area can either be transparent, allowing the underlying colors to show through, or be created from the background color.

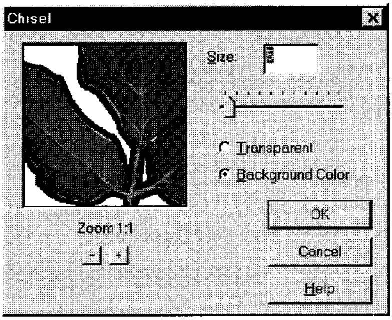
Chisel Effect



To apply the Chisel effect:

1. Select the area or item to which you are applying the Chisel effect.
2. If you want to use a background color, select it using one of the methods described in Chapter 6, "Working with Color."
3. In the Image menu, choose Chisel from the Effects submenu. The Chisel dialog box opens.

Chisel Dialog Box


Chisel

Size:

○ Transparent

● Background Color

4 Use the Preview to view the image as you adjust the settings. Click the "+" and "-" buttons to change the magnification, and drag the image to bring other areas of it into view.

5 Set the size of the chiseled area by dragging the Size slider or typing a pixel value in the Size box.

6 Select the Transparent or Background Color option for the chiseled area.

7 Click OK to apply the settings.

utout Effect

NOTES: A layer must contain a selection or be other than a background layer to apply the Cutout effect.

The Cutout effect can be applied only to grey scale and 24-bit color images.

The Cutout effect creates the illusion that part of the image has been removed, allowing you to see through the image to a lower level.

To apply the Cutout effect:

1 Use a selection tool to select the area or item to which you are applying the Cutout effect.

2 To color the interior or the shadow with the foreground or background colo select those colors using one of the methods described in Chapter 6, "Working with Color."

3 In the Image menu, choose Cutout from the Effects submenu. The Cutout dialog box opens.

4 Use the preview on the right to view the cutout as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag the image t bring other areas of it into view.

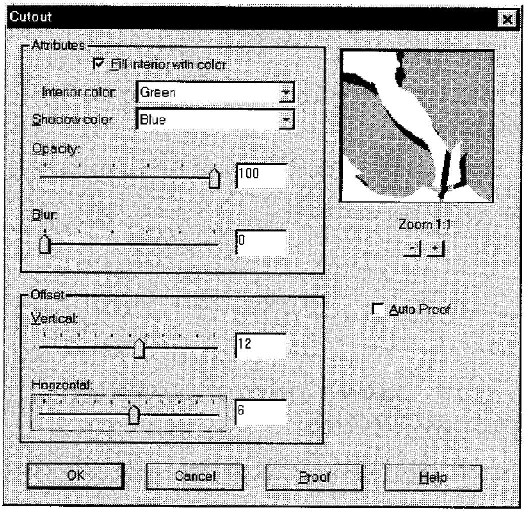
5 To update the original image as you change the settings, select the "Auto Proof" check box.

6 In the Attributes panel, select the "Fill the interior with color" check box to replace the contents of the cutout area with a solid color.

7 If you selected the check box in the previous step, choose an interior color from the Interior color drop-down box. Your choices are: Foreground Color, Background Color, White, Black, Red, Green, and Blue.

8 Choose a shadow color from the Shadow color box. Your color choices are the same as for the interior.

Cutout Dialog Box



Cutout

Attributes

☑ Fill interior with color

Interior color: Green

Shadow color: Blue

Opacity: 100

Blur: 0

Offset

Vertical: 12

Horizontal: 6

9 Set the opacity of the shadow by dragging the Opacity slider.

10 Set the blur of the shadow by dragging the Blur slider. As you increase the Blur level, the shadow widens and its edges soften.

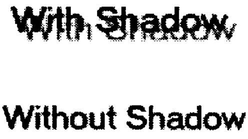
11 The Vertical and Horizontal Offset sliders control the alignment of the interior and outline by moving the interior. At 0, the outline appears evenly around the interior.

- Move the Vertical slider to the right (positive numbers) to move the interior toward the bottom of the image and to the left (negative numbers) to move the interior toward the top.
- Move the Horizontal slider to the right (positive numbers) to move the interior toward the right and to the left (negative numbers) to move the interior toward the left.

12 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

13 Click OK to apply the settings.

rop Shadow



NOTES: A layer must contain a selection or be other than a background layer to apply the Drop Shadow effect.

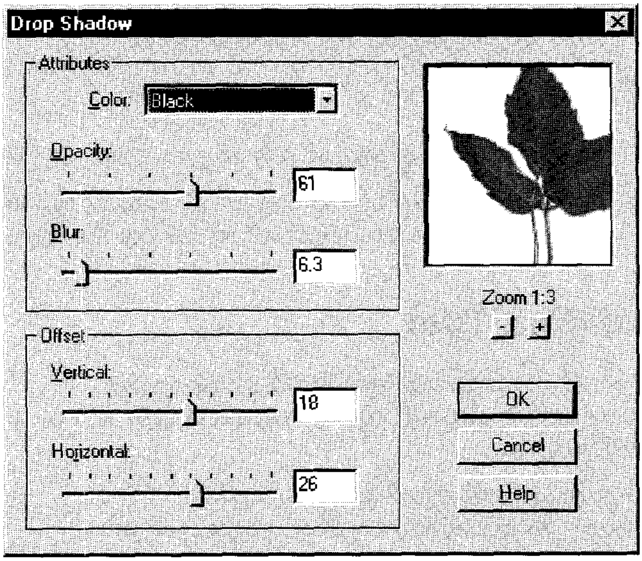
The Drop Shadow effect can be applied only to grey scale and 24-bit color images.

The Drop Shadow command places a shadow behind the selection.

To create a Drop Shadow:

1. Select the area or item to which you are adding a drop shadow.
2. To create a shadow in the foreground or background color, pick the color using one of the methods described in Chapter 6, "Working with Color."
3. In the Image menu, choose Drop Shadow from the Effects submenu. The Drop Shadow dialog box opens.

Drop Shadow Dialog Box



Color: Black

Opacity: 61

Blur: 6.3

Vertical: 18

Horizontal: 26

4. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag the image to bring other areas of it into view.
5. In the Attributes panel, choose a shadow color from the Color box. Your choices are: Foreground Color, Background Color, White, Black, Red, Green and Blue.
6. Drag the Opacity to select the shadow's opacity. As the opacity decreases, tl drop shadow fades.
7. Drag the Blur slider to set the blur of the shadow. As the blur level increases the appearance of the shadow softens.

8 In the Offset panel, drag the Vertical and Horizontal Offset sliders to control the alignment of the drop shadow:

- Move the Vertical slider to the right (positive numbers) to move the shadow toward the bottom of the image and to the left (negative numbers) to move it toward the top.
- Move the Horizontal slider to the right (positive numbers) to move the shadow toward the right and to the left (negative numbers) to move it toward the left.

9 Click OK. The dialog box closes and the Drop Shadow appears behind the item or selection.

EFORMATIONS

NOTE: Deformations can be applied only to grey scale and 24-bit color images.

Deformations create an effect by moving image data from one area to another. As the name implies, the result is a deformed version of the original image.

ee Deformation Tool

Deformation Tool

NOTE: If you click another image without clicking the Apply button, you will be prompted to apply the Deformation.

Use the Deformation tool to rotate, resize, skew and distort layers, floating selections, and images. You can either click the tool button and manipulate the handles on the image or double-click the tool button and enter settings in the dialog box.

To use the Deformation tool directly on the image:

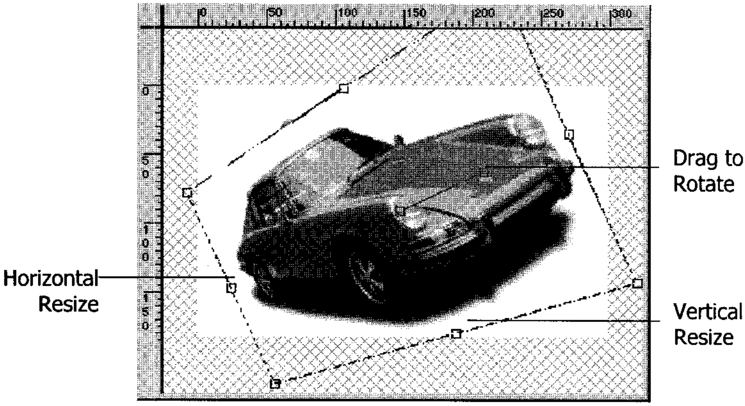
1 To deform a selection, make the selection and float it.

2 If the Tool Controls tab of the Control palette is hidden, make it visible.

3 Click the Deformation tool on the Tool palette. The Deformation handles and guides appear on the image.

4 Move the cursor to the area to be deformed. The cursor changes shape whenever it is over a handle.

Using the Free Deformation Tool



5 Deform the image by doing one or more of the following:

- Resize vertically by dragging the center top and bottom handles.
- Resize horizontally by dragging the center left and right handles.
- Resize horizontally and vertically at the same time by dragging the corner handles.
- Rotate by dragging the center bar.
- Change perspective by pressing <Ctrl> while by dragging any of the 4 corner handles.
- Apply a skew/shear effect by pressing <Shift> while by dragging any the 4 center handles.
- Distort (move the corner) by pressing <Ctrl>+<Shift> while dragging of the 4 corner handles.

As the cursor moves over a handle, a rectangle shaped like the distortion appears.

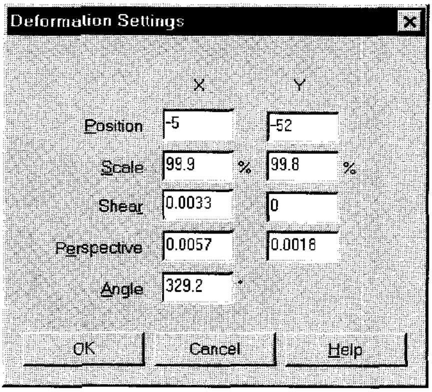
6 To apply the Deformation, either click the Apply button on the Tool Contr tab or double-click the image.

To use the Deformation dialog box:

1 To deform a selection, make the selection and float it.

2 Double-click the Deform tool on the Tool palette. The Deformation Setting dialog box opens.

Deformation Settings Dialog Box



	X		Y	
Position	-5		-52	
Scale	99.9	%	99.8	%
Shear	0.0033		0	
Perspective	0.0057		0.0018	
Angle	329.2	°		

3 The Boxes under the X control the horizontal distortion; the boxes under the Y control the vertical distortion:

- Position determines the X and Y coordinates of the left-most corner point.
- Scale controls the horizontal and vertical resizing.
- Shear controls the offset of a side. Enter positive values to shear to the right or downward; negative values to shearing to the left or upward. At .5, a side shears 50% of its length.
- Perspective controls the length of a side to its opposite. Enter a positive number to shorten a side; a negative number to lengthen a side. At .5, one side is half the length of the opposing side.
- Angle is the rotation around the center point. Clockwise rotation is measured from 0 to 360; counter-clockwise rotation from 360 to 0.

4 After entering the values, click OK to close the dialog box.

5 To apply the Deformation, either click the Apply button on the Tool Controls tab or double-click the image.

eformation Browser

The Deformation Browser is a quick way to apply preset deformation values to an image or a selection.

To use the Browser:

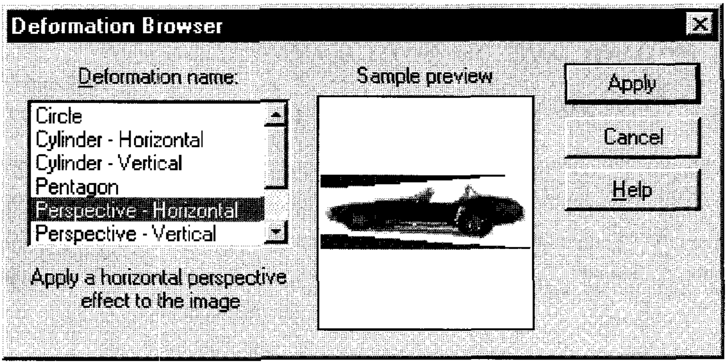
1 To limit the deformation to a selection, make the selection before opening the Browser.

2 Choose Deformation Browser from the Image menu. The Deformation Browser opens.

3 Select a Deformation from the Deformation Name list. The Sample preview displays the result.

4 To apply the Deformation, click the Apply button.

Deformation Browser - Horizontal Perspective


Deformation Browser
Deformation name:
Circle
Cylinder - Horizontal
Cylinder - Vertical
Pentagon
Perspective - Horizontal
Perspective - Vertical
Sample preview
Apply
Cancel
Help

Apply a horizontal perspective effect to the image

sing Deformation Dialog Boxes

The Deformations all use similar dialog boxes. The Cylinder - Horizontal dialog box is described below as an example. Refer to it for an explanation on using a Deformation dialog box.

orizontal Cylinder

Stretches the image or selection as though wrapping it around a horizontal cylinder by the percentage you select.

To apply a Horizontal Cylinder Deformation:

1 To limit the deformation to a selection, make the selection before opening th dialog box.

2 In the Image menu, choose Deformations, and then choose Cylinder - Horizontal. The Horizontal Cylinder Deformation dialog box opens.

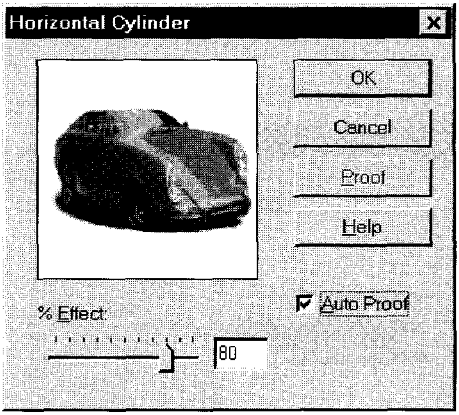
3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 Drag the % Effect slider or type a value in the % Effect box to deform the image by a percentage.

5 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

6 To apply the changes, click OK.

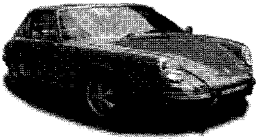
Horizontal Cylinder Deformation Dialog Box



☑ Auto Proof

% Effect: 80

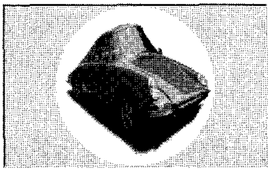
Vertical Cylinder Deformation



ertical Cylinder

Stretches the image or selection as though wrapping it around a vertical cylinder by the percentage you select.

Circle Deformation



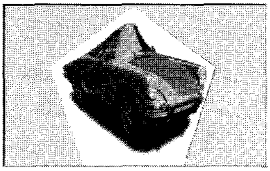
ircle

Turns the image or selection into a sphere.

entagon

Transforms the image or selection into a pentagon.

Pentagon Deformation

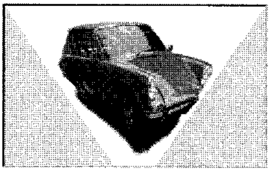


orizontal Perspective

Creates a perspective along the horizontal axis by narrowing the left or right side of the image or selection. The Deformation Browser dialog box on the previous page shows an example of the Horizontal Perspective deformation.

ertical Perspective

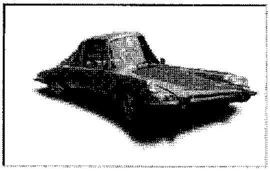
Creates a perspective along the vertical axis by narrowing the top or bottom of the image or selection.



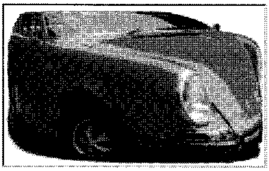
Vertical Perspective Deformation

inch

Makes the image or selection appear pinched by pushing everything toward its middle.



Pinch Deformation



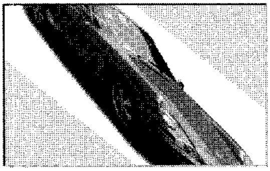
Punch Deformation

unch

Makes the image or selection appear punched from the back so the middle expands toward the outer edges.

kew

This distortion skews an object or image along its horizontal axis and vertical ax up to 45° in either direction.



Skew Deformation

AINT SHOP PRO FILTERS

NOTES: To apply a filter, choose its command from the Image menu.

Filters can be applied only to grey scale and 24-bit color images.

You can select filters by choosing them from the Filter Browser or from the Imag menu. The Filter Browser is a convenient way to preview filters. When you selec a filter from the Filter Name list, the Sample preview displays its effect on the image.

ilter Browser

Use the filter browser to try out filter effects on your image before applying then When you select a filter from the Browser, Paint Shop Pro opens that filter's dialog box (if there is one), where you can configure its options.

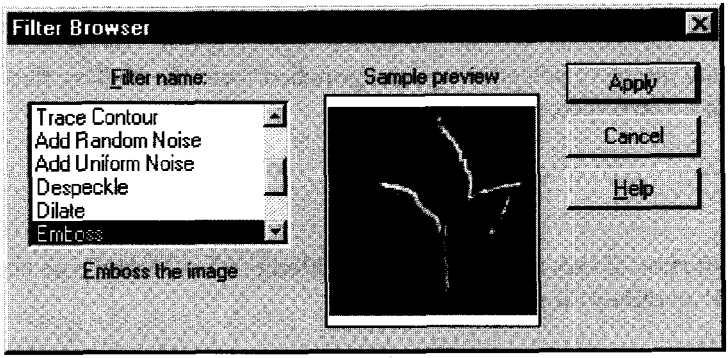
To use the Browser:

1 Choose Filter Browser from the Image menu. The Filter Browser opens.

2 Select a filter from the Filter name list. The Sample Preview displays the result.

3 To apply the filter, click the Apply button.

Filter Browser - Emboss Filter


Filter Browser
Filter name:
Trace Contour
Add Random Noise
Add Uniform Noise
Despeckle
Dilate
Emboss
Emboss the image
Sample preview
Apply
Cancel
Help

Blur Filters

Blur and Blur More

The Blur and Blur More filters smooth transitions by averaging the pixels next to hard edges of defined lines and shaded areas where there are significant color transitions. To use these filters, choose their commands from the Blur submenu the Image menu.

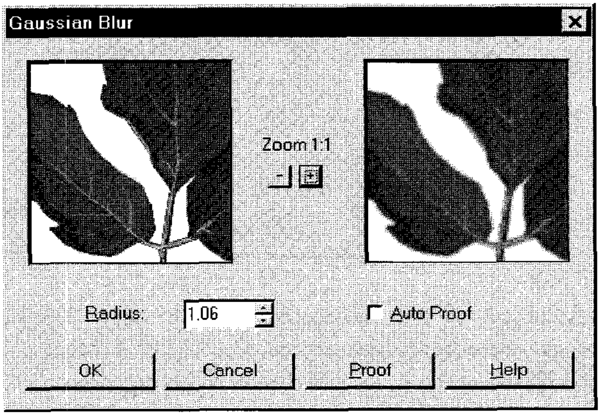
Gaussian Blur

The Gaussian Blur filter uses a weighted bell-shaped curve to average the pixels around the target pixel.

To apply the Blur filter:

1 From the Image menu, choose Blur, and then choose Gaussian Blur. The Gaussian Blur dialog box opens.

Gaussian Blur Dialog Box



Gaussian Blur

Radius: 1.06

☐ Auto Proof

2 The preview on the left shows the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.

3 To update the original image as you change the settings, select the "Auto Proof" check box.

4 Select a Blur radius.

5 If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.

6 To apply the changes, click OK.

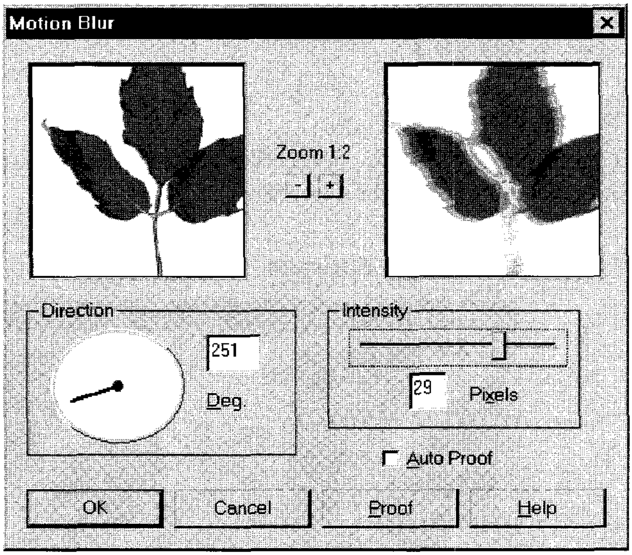
Motion Blur

The Motion blur adds the appearance of motion to an object by placing a directional blur for a specific distance. Set the distance and direction of the blur to simulate the direction and speed you want the object to appear to be moving.

To apply the Motion Blur filter:

1. From the Image menu, choose Blur, and then choose Motion Blur. The Motion Blur dialog box opens.

Motion Blur Dialog Box



Direction: 251 Deg.

Intensity: 29 Pixels

☐ Auto Proof

2. The preview on the left shows the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. To set the direction of the blur, drag the needle around the circle or type the degree (from 0 to 359) in the box.
5. Drag the slider to select the intensity. As the intensity increases, Paint Shop Pro blurs the image an increasing number of pixels in the selected direction.
6. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
7. To apply the changes, click OK.

Soften and Soften More

The Soften filter applies a uniform blur to an image. It averages the pixels next hard edges and areas of sharp contrast. Use it for photo retouching. The Soften More filter applies the effect with more intensity.

To apply these filters, choose their commands from the Blur submenu of the Image menu.

Edge Filters

You can apply these filters by choosing them from the Edge command of the Image menu or by selecting them from the Filter Browser.

Enhance

Enhances the edges in the image.

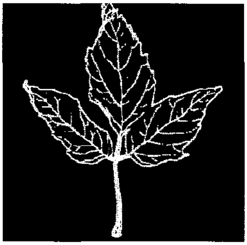
Enhance More

Applies a stronger enhancement of the edges in the image.

Find All

Enhances the contrasts between light and dark in the image by darkening the image and then highlighting the edges.

Find All Edges Filter



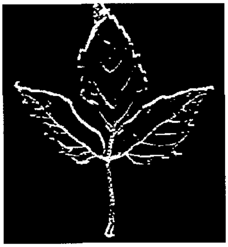
Find Horizontal

Enhances the horizontal edges in the image using the method of the Find All filter.

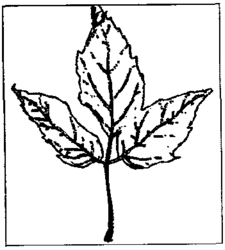
Find Vertical

Enhances the vertical edges in the image using the method of the Find All filte

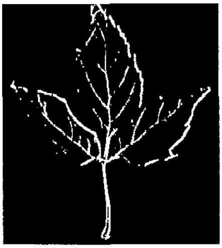
Find Horizontal Edges



Trace Contour



Find Vertical Edges



Trace Contour

Lightens the entire image but turns the contours black.

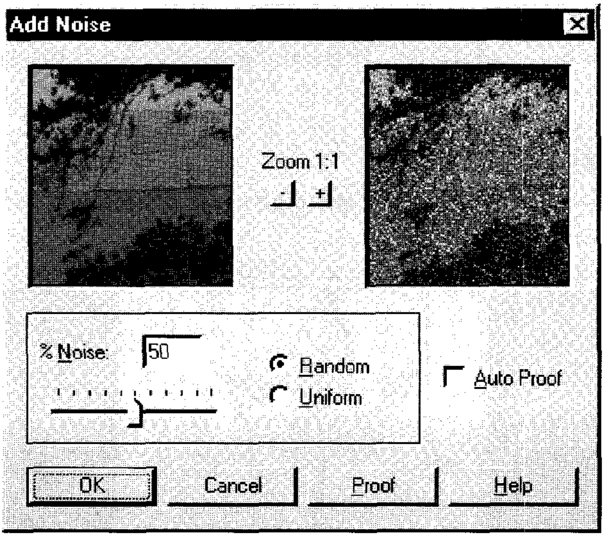
oise Filters

Add Noise

To apply the Add Noise filter:

1. From the Image menu, choose Noise, and then choose Add. The Add Noise dialog box opens.
2. The preview on the left shows the current image. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Drag the slider to set the percentage of pixels covered with noise. Increasing the slider makes the noise appear more dense.
5. Select whether the noise is added in a random or uniform pattern over the image.
6. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
7. To apply the changes, click OK.

Add Noise Dialog Box



% Noise: 50

● Random

○ Uniform

☐ Auto Proof

Despeckle

Removes spots or noise in the image.

You can apply this filter by choosing it from the Noise submenu of the Image menu or by selecting it from the Filter Browser.

Median Cut

Use this command to eliminate noise from an image. This filter calculates the median of the block of pixels around the pixel in question then sets the pixel' s value to the median.

You can apply this filter by choosing it from the Noise submenu of the Image menu or by selecting it from the Filter Browser.

harpen Filters

Sharpen

If your picture is slightly out of focus, you can create the illusion of a sharper focus using the Sharpen filters. The Sharpen filter works by increasing the contrast between pixels where there significant color contrasts, usually at the edges of objects. Paint Shop Pro lightens the light pixels and darkens the dark pixels.

To apply the filter, choose Sharpen from the Sharpen submenu of the Image menu.

Sharpen More

Applies the Sharpen filter with more intensity. To apply the filter, choose Sharpen More from the Sharpen submenu of the Image menu.

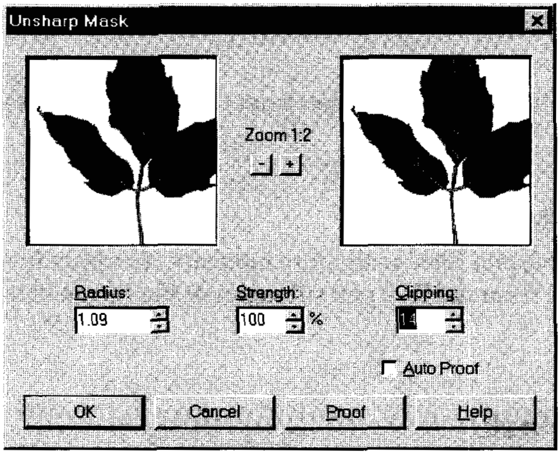
Unsharp Mask

The Unsharp mask filter comes from the printing industry. Use it to sharpen mid to high contrast edges without enhancing the noise normally present in digital images. This filter locates adjacent pixels with the difference lightness values that you specify, and it increases their contrast by the amount you specify.

To apply the Unsharp Mask filter:

1. From the Image menu, choose Sharpen, and then choose Unsharp Mask. Th Unsharp Mask dialog box opens.
2. The preview on the left shows the current settings. The preview on the righ updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Set a radius value. The Radius value determines the number of pixels surrounding the edge pixels that are affected.
5. Select a Strength percentage. This is a percentage of how much the contrast of pixels is increased.
6. Set the clipping value. This determines how much the difference between th pixels must be before the filter is applied. As you increase the value, the pixels must have increasingly different lightness values to be affected. This allows you to reduce the noise that would normally be introduced with a Sharpen filter.
7. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
8. To apply the changes, click OK.

Unsharp Mask Dialog Box



Radius: 1.09

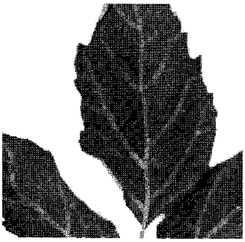
Strength: 100 %

Clipping: 14

☐ Auto Proof

ther Filters

Dilate Filter



Dilate

The Dilate filter enhances the light areas of the image.

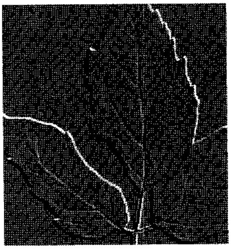
To apply the effect, choose Dilate from the Other submenu of the Image menu or select it in the Filter Browser.

Emboss

The Emboss filter converts the image into a bas relief. It turns the color a medium grey. Colors will start to appear when there is a large difference in the contrast between two colors.

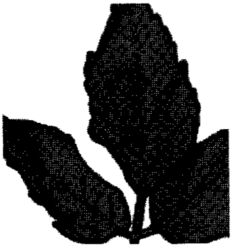
To apply the effect, choose the command from the Other submenu of the Image menu or select it in the Filter Browser.

Emboss



Erode

Hot Wax Coating



Erode

The Erode filter enhances the dark areas of the image.

To apply the effect, choose the command from the Other submenu of the Image menu or select it in the Filter Browser.

Hot Wax Coating

The Hot Wax Coating filter creates the appearance of coating the image in a laye of hot wax using the foreground color.

To apply the effect, choose the command from the Other submenu of the Image menu or select it in the Filter Browser.

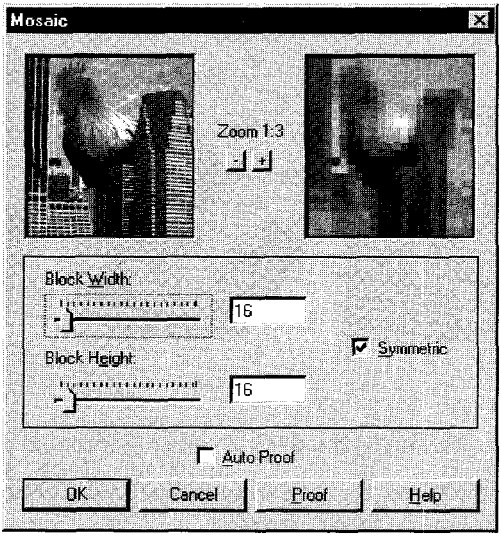
Mosaic

The Mosaic filter applies a mosaic-like effect to an image using a tile size you determine.

To apply the Mosaic filter:

1. From the Image menu, choose Other, and then choose Mosaic. The Mosaic dialog box opens.
2. The preview on the left shows the current settings. The preview on the right updates as you adjust the settings. Click the "+" and "-" buttons to change the magnification. Drag either image to bring other areas of them into view.
3. To update the original image as you change the settings, select the "Auto Proof" check box.
4. Select the block width and height in pixels.
5. To create square tiles, select the "Symmetric" check box. To create rectangular tiles, leave the check box unchecked. When you don't select symmetric blocks, you can reduce the image down to 4 tiles.

Mosaic Filter Dialog Box



Block Width: 16

Block Height: 16

☑ Symmetric

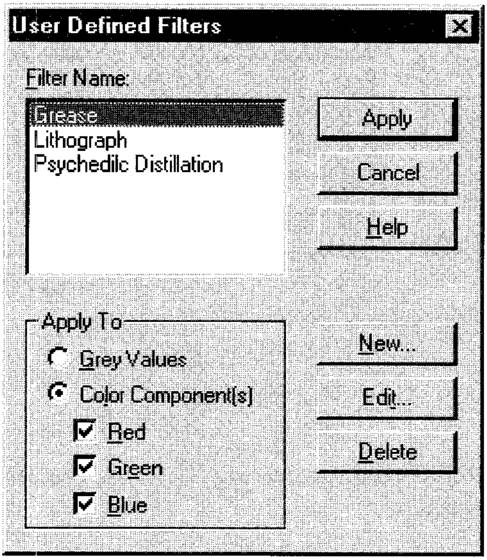
☐ Auto Proof

6. If you have not selected "Auto Proof," click the Proof button to view the changes on the original image.
7. To apply the changes, click OK.

JSER DEFINED (CONVOLUTION) FILTERS

In addition to using the filters supplied with the program, you can create your own filters in Paint Shop Pro. You manage your filters from the User Defined Filters dialog box. To open the dialog box, choose User Defined Filters from the Image menu.

User Defined Filters Dialog Box



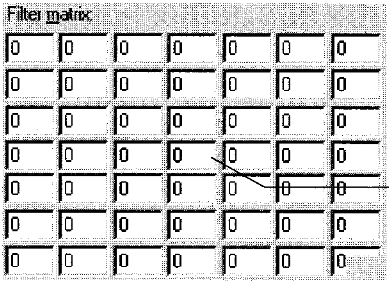
Grease
Lithograph
Psychedilc Distillation

Apply To
○ Grey Values
● Color Component(s)
☑ Red
☑ Green
☑ Blue

low Filters Work

A filter alters each pixel's color based on its current color and the colors of any neighboring pixels. The heart of a filter is an array of numbers called a filter matrix. Paint Shop Pro uses up to a 7x7 matrix. The numbers in the array are used as coefficients.

Filter Matrix



0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

Target Pixel
Coefficient

The image is processed on a pixel-by-pixel basis: each pixel's color value is multiplied by the coefficient in the array's center, and any neighboring pixels within the 7x7 grid are multiplied by the corresponding coefficients. The sum of the products becomes the target pixel's new value. The new value is saved in a separate bitmap so that it does not affect the remaining pixels.

Simple Filter Calculation Example

Pixel Values x **Filter Matrix** = **Products** Σ **Sums**

Pixel Values

0	0	1	1	2
0	1	1	2	2
1	1	**2**	2	3
1	2	2	3	3
2	2	3	3	4

Filter Matrix

0	0	0	0	0
0	1	1	1	0
0	1	-7	1	0
0	1	1	1	0
0	0	0	0	0

Products

0	0	0	0	0
0	1	1	2	0
0	1	-14	2	0
0	2	2	3	0
0	0	0	0	0

Sums

0
4
-11
7
0

New Target Pixel Value: **0**

The formula for this calculation is:

$$F = \sum_{i=1}^{49} P_i C_i$$

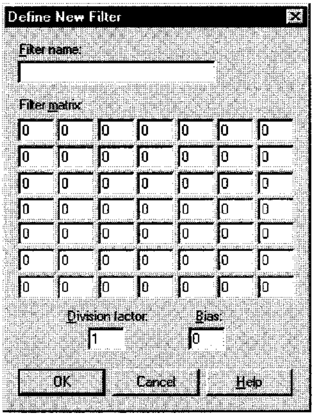
Where F is the filtered value of the target pixel, P is a pixel in the grid, and C is a coefficient in the matrix.

Creating a User Defined Filter

To create a filter:

1. Click the New button in the User Defined Filters dialog box. The Define New Filter dialog box opens.
2. Type the new filter's name into the Filter Name text box. The next step suggests a few filter matrices and their titles. If you want to try one of these filters, look ahead, decide which one you want to use, then enter its title.
3. Enter the filter matrix values into the table in the center of the dialog box. Non-integers will be truncated (chopped off at the decimal place). See the next step for help achieving the same effect as decimal coefficients.

Define New Filter Dialog Box



0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

Division factor: 1

Bias: 0

Some matrix suggestions are displayed below.

Matrix Examples

Grease

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	1	1	1	0	0
0	0	1	-7	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

Lithograph

0	0	0	0	0	0	0
0	-1	-1	-1	-1	-1	0
0	-1	-10	-10	-10	-1	0
0	-1	-10	98	-10	-1	0
0	-1	-10	-10	-10	-1	0
0	-1	-1	-1	-1	-1	0
0	0	0	0	0	0	0

Psychedelic Distillation

0	0	0	0	0	0	0
0	0	-1	-2	-3	-4	0
0	0	-1	3	2	1	0
0	0	-1	10	2	1	0
0	0	-1	3	2	1	0
0	0	-1	-2	-3	-4	0
0	0	0	0	0	0	0

4 If you're using one of the example matrices shown above, set the division factor to 1. If you enter another number, it must be an integer. Non-integers will be truncated.

You can think of the division factor as the coefficient denominator: each coefficient in the filter matrix is divided by the division factor before being applied to a pixel. In actuality, the division factor is applied to the product o the matrix calculation.

The division factor allows you to achieve effects that would otherwise require decimal coefficients. The advantage of requiring non-decimal coefficients is execution speed: Paint Shop Pro can accelerate the filtering process by performing the math using integers.

To use the division factor:

1 Raise the decimal coefficients to integers by multiplying them by the division factor (typically 10, 100, or 1000).

2 Enter the "integer-ized" coefficients in the matrix.

3 Enter the division factor in the Division Factor text box.

The division factor changes the filter formula to:

$$F = \left\{ \sum_{i=1}^{49} P_i C_i \right\} \div D$$

Where F is the filtered value of the target pixel, P is a pixel in the grid, C is a coefficient in the matrix, and D is the division factor.

5 Set the bias:

- If you're using one of the example matrices shown above, set the bias to 0.
- If you enter another number, it must be an integer. Non-integers will be truncated. Integers outside of the range of 0 to 255 will be converted to fall within the range. For example, 256 becomes 0, and -1 is converted to 255.

Simple Embossing Filter

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	-1	0	1	0	0
0	0	-1	0	1	0	0
0	0	-1	0	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

Division Factor = 1

Bias = 128

The bias is added to the product of the matrix calculation and the division factor. You use the bias to shift the value of each pixel by a fixed amount. Bias adjustments are particularly useful for creating embossing effects. As an example, try creating a filter with the settings shown above.

The bias changes the filter formula to:

$$F = \left\{ \sum_{i=1}^{49} P_i C_i \right\} \div D + B$$

Where F is the filtered value of the target pixel, P is a pixel in the grid, C is a coefficient in the matrix, D is the division factor, and B is the bias.

6 After you have entered the filter's settings, click the OK button. Paint Shop Pro saves the filter and returns to the User Defined Filters dialog box.

LUG-IN FILTERS

If you have installed Adobe-compatible image processing filters, a Plug-ins submenu will appear at the bottom of the Image menu. Choose the filter from this submenu. For help setting the plug-in filter preferences, see Chapter 12, "Configuring Paint Shop Pro."

NOTE: The plug-in filter may open a dialog box. For help using it, please consult the filter's documentation or online Help.

SING THE IMAGE ARITHMETIC FUNCTION

Use the Image Arithmetic function to combine data from two images. The function accepts any two images as input, and it produces a third image that is the product of the source image's color data.

To combine two images:

1. Open the two images you want to combine.
2. Choose Arithmetic from the Image menu. The Image Arithmetic dialog box opens.
3. Select the two images you want to combine from the Source image #1 and Source image #2 drop down boxes. The size of the resulting image is determined by source image #1.
4. Select a function in the Function Group panel. Function processing is performed as follows:
    - A copy of source image #2 is resized to match source image #1. The resized copy is used in the function processing. It resides in temporary memory and is not displayed.
    - The color data from the two images is combined on a pixel-by-pixel basi according to the formulas detailed on the next page.

Image Arithmetic Dialog Box

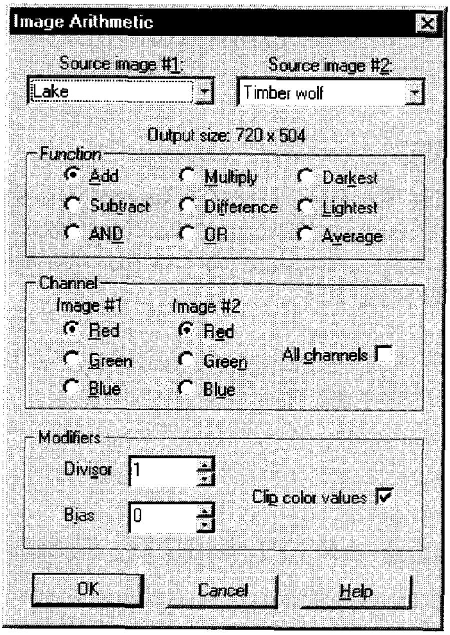


Image Arithmetic

Source image #1: Lake

Source image #2: Timber wolf

Output size: 720 x 504

Function
● Add ○ Multiply ○ Darkest
○ Subtract ○ Difference ○ Lightest
○ AND ○ OR ○ Average

Channel
Image #1: ● Red ○ Green ○ Blue
Image #2: ● Red ○ Green ○ Blue
All channels ☐

Modifiers
Divisor 1
Bias 0
Clip color values ☑

Function	New Color Value Equals
Add	Image 1 Value + Image 2 Value
Subtract	Image 1 Value - Image 2 Value
Multiply	Image 1 Value x Image 2 Value
Difference	Absolute Value of (Image 1 Value - Image 2 Value)
Lightest	Maximum of (Image 1 Value, Image 2 Value)
Darkest	Minimum of (Image 1 Value, Image 2 Value)
Average	(Image 1 value + Image 2 Value) ÷ 2
Or	Binary Or
And	Binary And

5 In the Channel Group panel, select the color channels that you want to process.

- Select the "All channels" check box to use all the color channels in both images. This will produce a 16 million color image.
- Select a specific channel for each image to produce a grey scale image.

6 Set the modifiers. The modifiers are applied to the color values produced by the function formula and the color channel selections (the 2 previous steps).

- The color value produced by the function formula and the color channe selections is divided by the value selected in the Divisor box. This allow you to reduce the effects of the other selections.
- Use the bias to shift each color value by a fixed amount. The value selected in the Bias box is added to the color value produced by the function formula, channel, and divisor selections.

7 The "Clip color values" check box determines how Paint Shop Pro handles final color values that are greater than 255 or less than 0.

Setting	X < 0	X > 255
On	X = 0	X = 255
Off	X = 256 +X	X = X - 256

8 Click the OK Button. The dialog box closes and the new image from the combined color data appears.

SPLITTING AND COMBINING CHANNELS

As mentioned in Chapter 6, images store color information in channels (also called planes). Paint Shop Pro can separate these channels into individual grey scale images, which you can edit. For example, you can split an image into its HSL channels and then use the Lightness image to create a mask. When you spl the channels of an image, you create new images; the original image is not affected.

Splitting Channels

Splitting an image's color channels creates individual grey scale images that are based on its RGB, HSL, or CMYK channels. The names of the images will be the appropriate channels. For example, an HSL image will be split into three separate images with the names "Hue," "Saturation," and "Lightness."

To split an active image, from the Colors menu, point to Channel Splitting, and choose RGB, HSL, or CMYK from the submenu.

Image Before Splitting into Channels

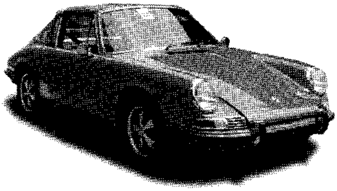
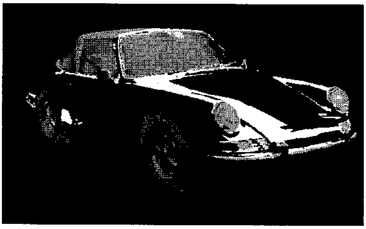
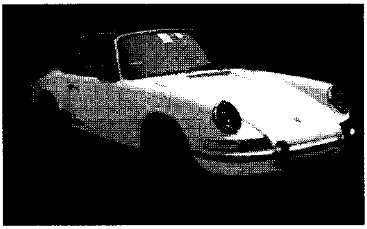


Image Split Into the Three Channels of:

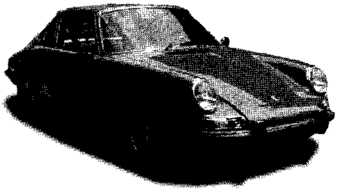
Hue



Saturation



Lightness

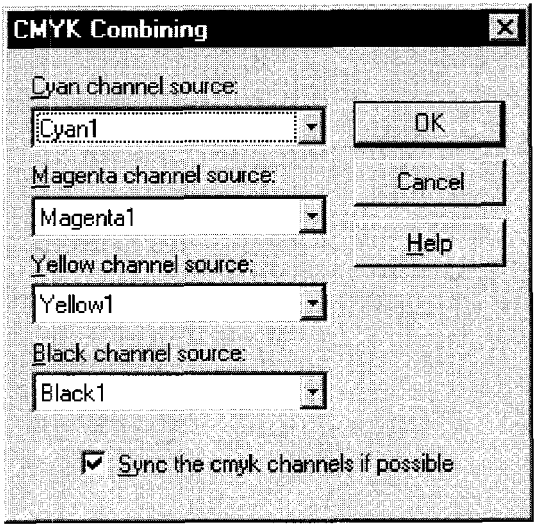


Combining Channels

To combine channels:

1. From the Colors menu, choose Channel Combining, and then choose one of the three methods from the submenu. The RGB, HSL, or CMYK Combining dialog box opens.
2. Select the Source Images (the images containing the channels to be combined). You can use source images that were generated by splitting an image's color channels, or you can select other images:
   - If you generated the source images by splitting an image's channels, selecting the "Sync" check box will automatically select the channel images that match the selected channel image.
   - If the source images were not created by splitting an image's channels, use the drop down boxes to select a source image for each channel.
3. Click the OK button. Paint Shop Pro creates an image by converting the gre scale images into color channel data.

CMYK Combining Dialog Box



CMYK Combining

Cyan channel source: Cyan1

Magenta channel source: Magenta1

Yellow channel source: Yellow1

Black channel source: Black1

☑ Sync the cmyk channels if possible

CHAPTER 1

Configuring Paint Shop Pro

CONFIGURING THE PAGE SETUP

In Paint Shop Pro, you can print both images and thumbnails. Before printing, select the page setup options to determine how the images or thumbnails are arranged on the page. There are two Page Setup dialog boxes, one for images an one for the Browser. When printing images, Paint Shop Pro can print CMYK separations, add a background color around the image, and print negative images.

To access the Page Setup dialog box for images, do one of the following:

- Choose Page Setup from the File menu.
- Click the Setup button in the Image Print Preview window.

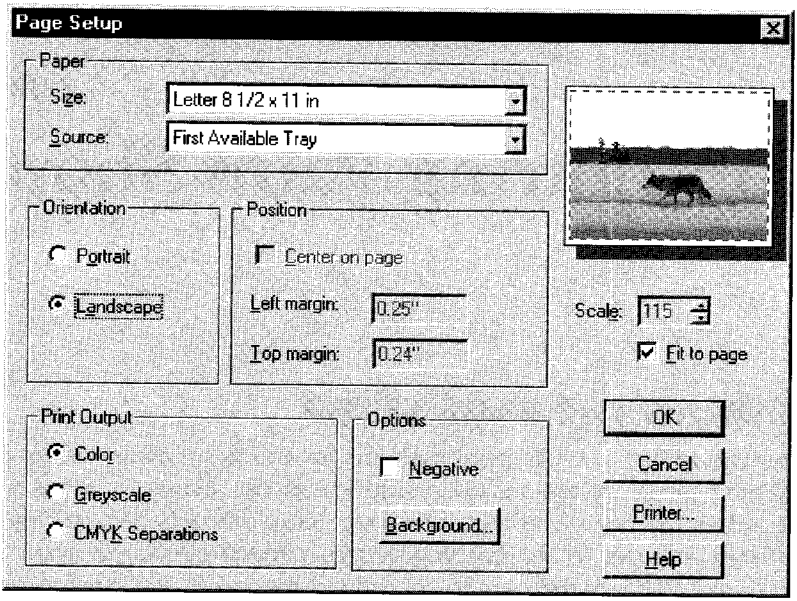
To access the Page Setup dialog box for Browser thumbnails, do one of the following when the Browser is open:

- Choose Page Setup from the File menu.
- Click the Setup button in the Browser Image Print Preview window.

To configure the Page Setup dialog box options:

Click the Printer button at the bottom of the dialog box. The Select Printer dialo box opens. Use the drop down box to select the printer you want to use. To set printer-specific options, click the Properties button.

Page Setup Dialog Box - Image Version



Page Setup

Paper

Size: Letter 8 1/2 x 11 in

Source: First Available Tray

Orientation

○ Portrait

● Landscape

Position

☐ Center on page

Left margin: 0.25"

Top margin: 0.24"

Scale: 115

☑ Fit to page

Print Output

● Color

○ Greyscale

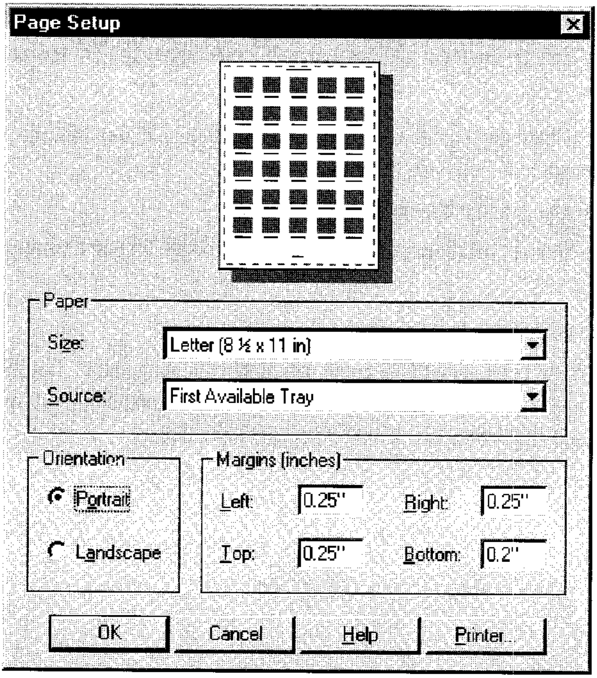
○ CMYK Separations

Options

☐ Negative

Background...
OK
Cancel
Printer...
Help

Page Setup Dialog Box - Browser Version



Page Setup

Paper

Size: Letter (8 ½ x 11 in)

Source: First Available Tray

Orientation

● Portrait

○ Landscape

Margins (inches)

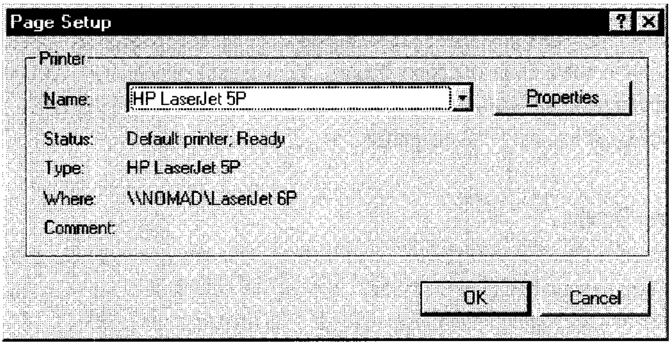
Left: 0.25" Right: 0.25"

Top: 0.25" Bottom: 0.2"

OK
Cancel
Help
Printer...

lect the Printer

Select Printer Dialog Box



Printer

Name: HP LaserJet 5P

Status: Default printer; Ready

Type: HP LaserJet 5P

Where: \\NOMAD\LaserJet 6P

Comment:

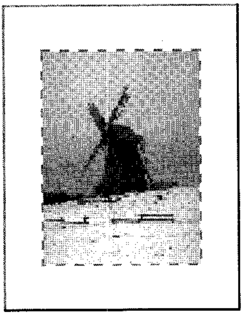
lect the Paper Size and Source

You select the paper size and source from the drop down boxes in the Paper group box. (For some printers, one or both of the drop down boxes may be unavailable.)

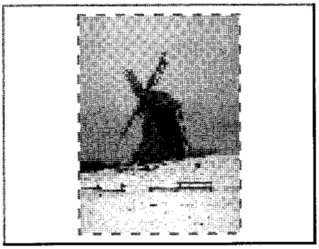
t the Page Orientation

Select a page orientation from the Orientation panel. There are two page orientations, portrait and landscape. Printing in portrait orientation places the top of the image against one of the page's narrow sides. Printing in landscape orientation places the top of the image against one of the page's wide sides.

Portrait



Landscape



Position the Image and Set the Scale (Images Only)

The settings in this step are only available from the image version of the Page Setup dialog box (shown on page 226).

Position the Image

To center the image on the page, select the "Center on page" check box in the Position panel. This option is not available if you have previously selected the "Fit to page," check box.

To create margins for the printed page, type the measurements (in inches) in the Left margin and Top margin boxes. You must clear the "Center on page" check box before you can access these boxes. They are not available if you have previously selected "Fit to page."

Set the Scale

If you select the "Fit to page" check box, the image will be maximized to fit within the available page space. If you do not select it, you can specify a scale to increase or decrease from the image's original size (100%). If you increase the scale above that shown when "Fit to page" is checked, your image will not fit on the page.

elect the Print Output

The Print Output box contains three options:

- To print your image in color, select the "Color" option. (You must have a color printer to produce color output.)
- To convert an image to Greyscale, select the Greyscale option. Paint Shop Pro replaces the colors in the image with greys of equal luminance. The effec is similar to a black-and-white photograph.
- To enable CMYK color separations, select the "CMYK Separations" option. CMYK separations may be desired if you are sending the printed output directly to your printer. Paint Shop Pro will generate four separate grey scal prints, each representing one color in the CMYK color space.

elect Negative and Background Options

To print a negative of the image, select the "Negative" check box. This replaces each color with its opposite. The effect is similar to a photographic negative.

To select a background color for unused space outside of your image, click the Background button. The Color dialog box opens. For a description of this dialog box, refer to Chapter 6, "Working with Color."

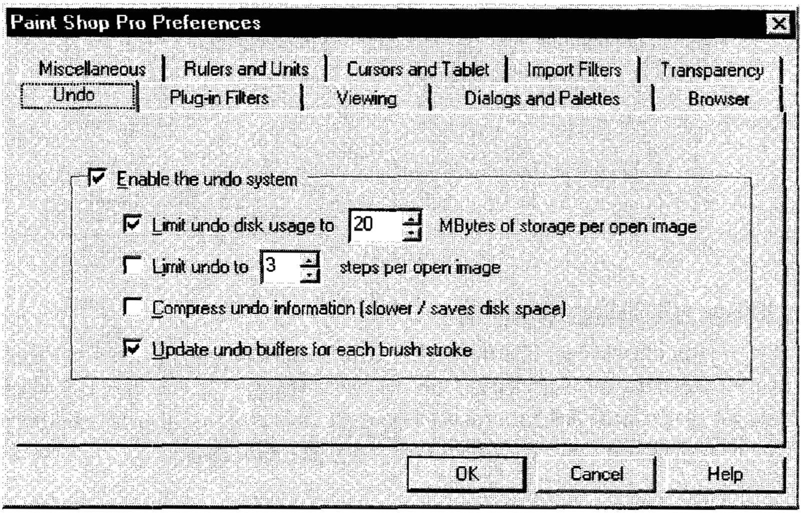
elect the OK Button

Click the OK Button. The Page Setup dialog box and the new settings are saved.

ENERAL PROGRAM PREFERENCES

You can change many of Paint Shop Pro's configuration settings from the Genera Preferences dialog box. To access the dialog box, choose Preferences from the Fil menu, and then choose General Program Preferences from the Preferences submenu. The options in the General Preferences dialog box are grouped under ten tabs. When you have finished setting preferences, click the OK button.

General Preferences Dialog Box


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
OK
Cancel
Help

☑ Enable the undo system

☑ Limit undo disk usage to 20 MBytes of storage per open image

☐ Limit undo to 3 steps per open image

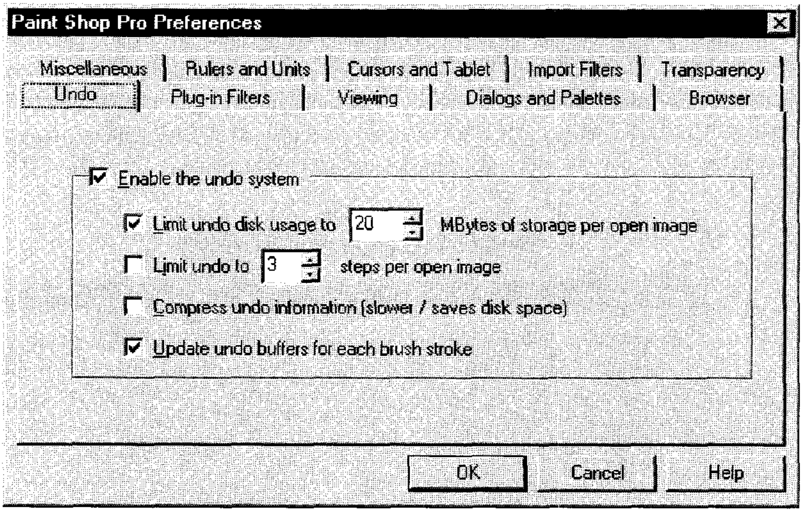
☐ Compress undo information (slower / saves disk space)

☑ Update undo buffers for each brush stroke

Undo Preferences Tab

The Undo command removes an image's last change. The Undo Preferences tab options determine where and if Paint Shop Pro will retain the image's undo information.

Undo Preferences


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
OK
Cancel
Help

☑ Enable the undo system

☑ Limit undo disk usage to 20 MBytes of storage per open image

☐ Limit undo to 3 steps per open image

☐ Compress undo information (slower / saves disk space)

☑ Update undo buffers for each brush stroke

Enable the Undo System

When this check box is selected, Paint Shop Pro can undo a set number of the most recent steps performed on an open image. If the box is not checked, you cannot undo individual steps. You can, however, still undo all of your changes by choosing the Revert command from the File menu.

Limit Undo Disk Usage

When this box is checked, you can set a maximum amount of disk usage available for undoing operations by entering values in the text box or by using the arrow buttons to change the value. The value can be set between 5 and 999 MB of storage per open image

Limit Number of Steps to Undo

When this box is checked, you can limit the number of steps that can be undone by entering values in the text box or by using the arrow buttons to change the value. The range of values is 1 to 99 per open image.

Compress Undo Information

When this box is checked, undo information will be compressed, which conserves disk space but results in slower undo operation.

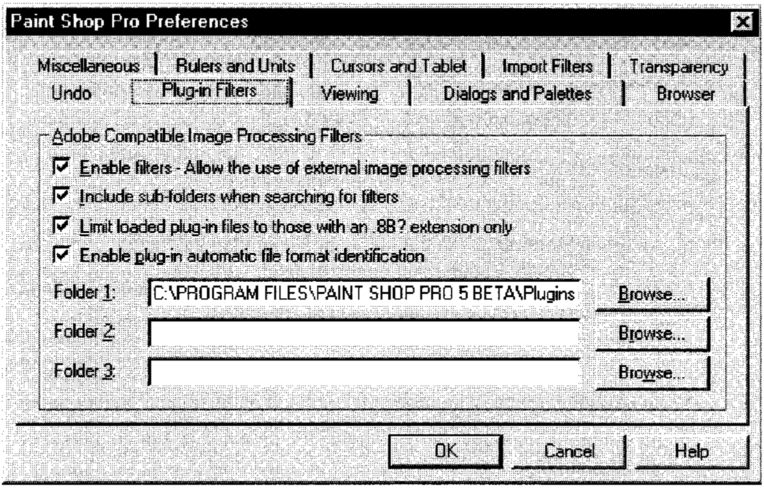
Update Undo Buffers

When this box is checked, undo buffers (the storage area for undo information) will be updated for each brush stroke.

Plug-in Filters Preferences Tab

The Plug-in Filters Preferences tab options determine if Paint Shop Pro will use your system's image processing and image import filters.

Plug-in Filters Preferences


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Browse...
Browse...
Browse...
OK
Cancel
Help

Adobe Compatible Image Processing Filters

☑ Enable filters - Allow the use of external image processing filters

☑ Include sub-folders when searching for filters

☑ Limit loaded plug-in files to those with an .8B? extension only

☑ Enable plug-in automatic file format identification

Folder 1: C:\PROGRAM FILES\PAINT SHOP PRO 5 BETA\Plugins

Folder 2:

Folder 3:

Adobe-Compatible Image Processing Filters

Adobe-compatible is the Windows standard for image processing filters. To use Adobe-compatible filters with Paint Shop Pro:

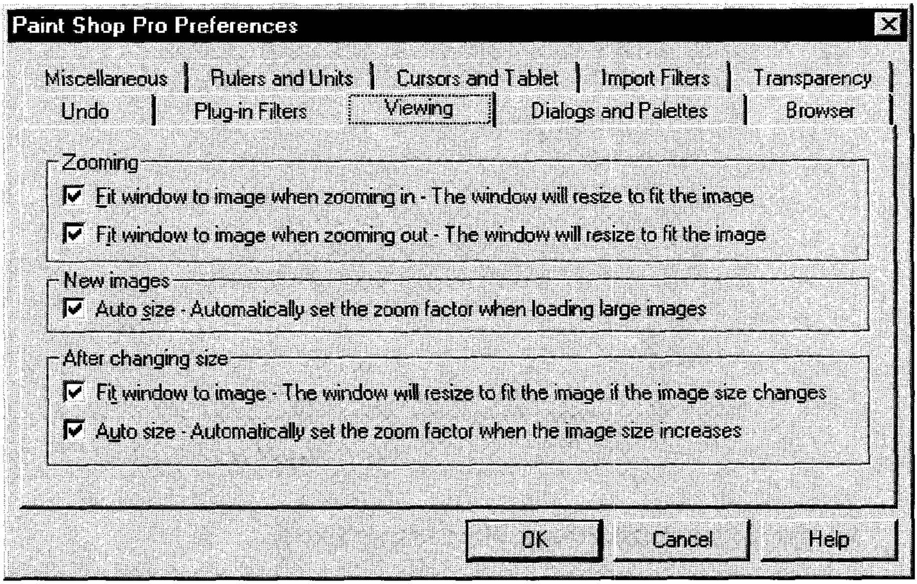
1. Select the "Enable Filters" check box.
2. Select the "Include Sub-Folders" check box if you want to search for filters in sub-folders as well as the selected folder.
3. Select the "Limit Loaded Plug-In Files" check box if you want to restrict loaded files to those with an extension of .8B? only.
4. Select the "Enable Plug-In Automatic File Format Identification" check box if you want the browser to read file formats supplied as plug-ins. If the plug-in displays a dialog box whenever it loads a file or displays other unwanted behavior, you may want to disable this option.
5. For each folder you wish to specify for plug-in files, click the Browse button. Paint Shop Pro will open the Select Folder dialog box.
6. Use the Select Folder dialog box to select the folder that contains the filters.

The filters will load in the background when Paint Shop Pro starts. While they are loading, a message to that effect will appear at the bottom of the Image menu When loading is complete, the message will be replaced by a Plug-ins submenu.

Viewing Preferences Tab

The Viewing Preferences tab options control if and how Paint Shop Pro automatically sizes images and image windows. A viewing option is on when it check box is filled.

Viewing Preferences


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
OK
Cancel
Help

Zooming

☑ Fit window to image when zooming in - The window will resize to fit the image

☑ Fit window to image when zooming out - The window will resize to fit the image

New images

☑ Auto size - Automatically set the zoom factor when loading large images

After changing size

☑ Fit window to image - The window will resize to fit the image if the image size changes

☑ Auto size - Automatically set the zoom factor when the image size increases

Zooming

The Zooming options determine if Paint Shop Pro automatically resizes an imag window when you zoom in or zoom out. A window is resized to include as mu of the image as possible.

New Images

If you open an image that is too large to fit in its image window and the Auto Size option under New Images is selected, Paint Shop Pro will automatically set the image's magnification so that the entire image is visible.

After Changing Size

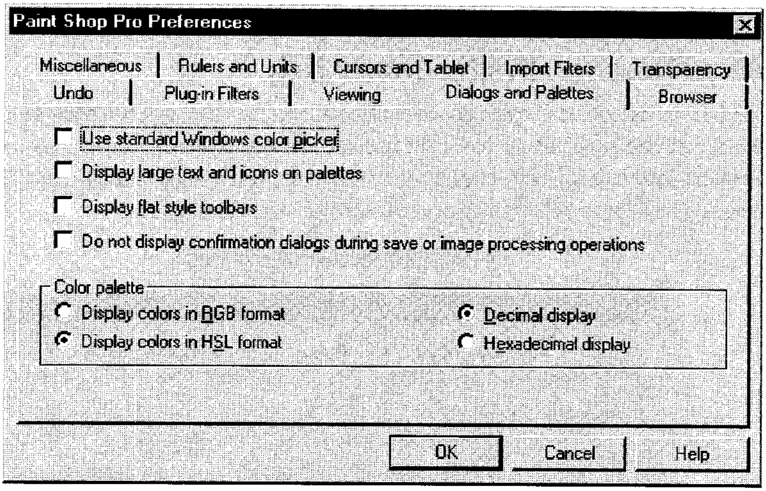
The After Changing Size options determine how Paint Shop Pro responds to a change in image size:

- If the Fit Window To Image option is selected, the image window will be resized to accommodate the new image size.
- If the Auto Size option is selected, and an image's size is increased to the point that it cannot fit in its image window, then the image's magnification will be reduced accordingly.

Dialogs and Palettes Preferences Tab

The Dialogs and Palettes Preferences tab options determine how Paint Shop Pro displays color data.

Dialogs and Palettes Preferences


Paint Shop Pro Preferences
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
OK
Cancel
Help

☐ Use standard Windows color picker

☐ Display large text and icons on palettes

☐ Display flat style toolbars

☐ Do not display confirmation dialogs during save or image processing operations

Color palette

○ Display colors in RGB format ● Decimal display

● Display colors in HSL format ○ Hexadecimal display

Windows Color Picker

Paint Shop Pro provides two types of color dialog boxes: the default Paint Shop Pro color dialog box and the standard Windows color dialog box. Select the "Us standard Windows color picker" check box to use this dialog color dialog box. When the check box is not selected, the Paint Shop Pro color dialog box is used. For more information on color dialog boxes, see Chapter 6, "Working with Color."

Display Options

When the check box labeled "Display large text and icons on palettes" is selected Paint Shop Pro displays enlarged icons for each palette tool. When the checkbox labeled "Display flat style toolbars" is selected, Paint Shop Pro displays flat buttons. Leave this unchecked if you are working on a laptop. The three-dimensional toolbar buttons are easier to see on a laptop.

Color Palette Options

The Color Palette options determine how Paint Shop Pro displays color data in the Current Color panel on the Color palette. For help selecting the active colors see Chapter 6, "Working with Color."

- You can display the data in RGB or HSL format (see Chapter 6, "Working with Color").
- You can display the values in decimal or hexadecimal format.

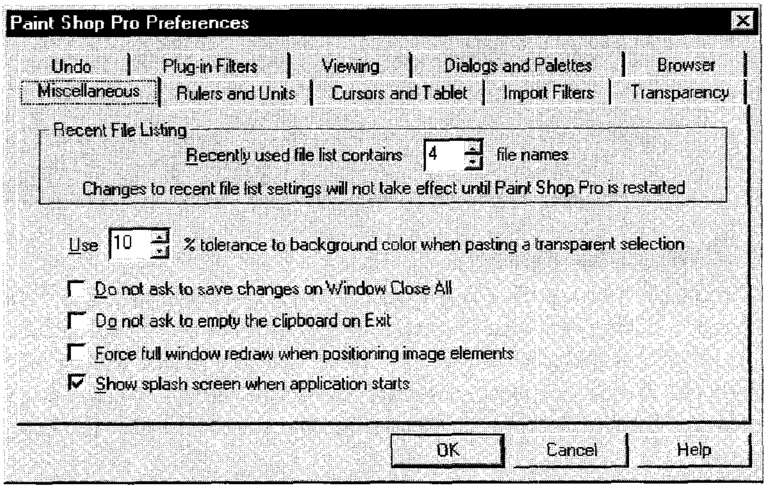
Browser Preferences Tab

The Browser Preferences tab options control how Paint Shop Pro displays the image thumbnails, and whether it saves the image data to the disk. See Chapter 4, "Using the Browser," for more information on Browser Preferences.

Miscellaneous Preferences Tab

The Miscellaneous Preferences tab options control such items as the length of th file list at the bottom of the File menu, the color Paint Shop Pro uses to represen masked areas, and whether you are prompted to save modified files when you choose the Close All command from the Window menu.

Miscellaneous Preferences



Recent File Listing

Recently used file list contains 4 file names

Changes to recent file list settings will not take effect until Paint Shop Pro is restarted

Use 10 % tolerance to background color when pasting a transparent selection

☐ Do not ask to save changes on Window Close All

☐ Do not ask to empty the clipboard on Exit

☐ Force full window redraw when positioning image elements

☑ Show splash screen when application starts

Recent File Listing

The Recent File Listing option sets the maximum number of files that can appea in the list at the bottom of the File menu. Use the spin control or type a number change the setting. Note that:

- You must restart Paint Shop Pro in order for the new setting to take effect.
- If you increase the setting, you will not reach the new maximum list length until you have opened a sufficient number of new files. For example, if the old list was four files long, and you increased the setting to ten, then you wi have to open six new files before you reach the new maximum length.

Pasting Transparent Selection Tolerance

Set the tolerance value for Paint Shop Pro to use when pasting transparent selections. This tolerance value determines how closely the background color must match the transparent color for it to become transparent.

Window Close All

When the check box labeled "Do not ask to save changes on Window Close All" is selected, Paint Shop Pro will not prompt you to save files when you choose the Close All command from the Windows menu. All the changes to all the open file will be discarded.

Empty Clipboard

When the check box labeled "Do not ask to empty clipboard on Exit" is selected, Paint Shop Pro will not prompt you to empty the Windows clipboard when you exit Paint Shop Pro.

Force Redraw

When the check box labeled "Force full window redraw when positioning image elements" is selected, Paint Shop Pro will redraw the information in the active window whenever you position image elements.

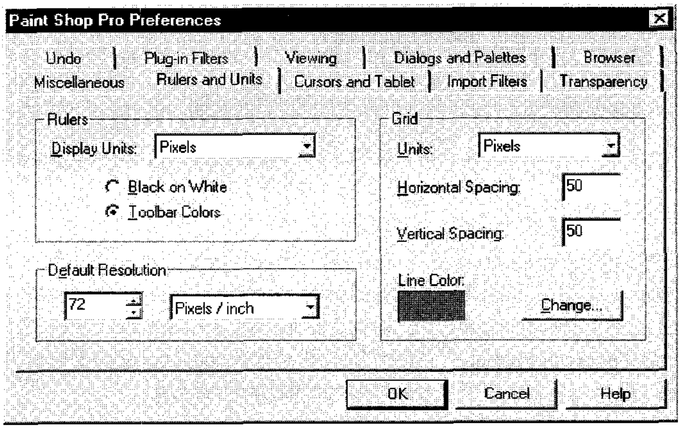
Show Splash Screen

When the check box labeled "Show splash screen when application starts" is selected, Paint Shop Pro will display its splash screen whenever you launch the application. The splash screen shows the Jasc Software, Inc. logo and the version number of Paint Shop Pro.

Rulers and Units Preferences Tab

The Rulers and Units Preferences tab options control how rulers and grids are displayed on the screen and the unit settings (i.e., pixels, inches, or centimeters) for each.

Rulers and Units Preferences


Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
OK
Cancel
Help

Rulers

Display Units: Pixels

○ Black on White

● Toolbar Colors

Default Resolution

72 Pixels / inch

Grid

Units: Pixels

Horizontal Spacing: 50

Vertical Spacing: 50

Line Color: Change...

Rulers

In the Rulers panel, select whether you want the units on the rulers to be in pixels, inches, or centimeters. Set the ruler colors either to match the other toolbars or to be black on white.

Default Resolution

In the Default Resolution panel, choose the program default resolution for new images in pixels/inch or pixels/centimeter.

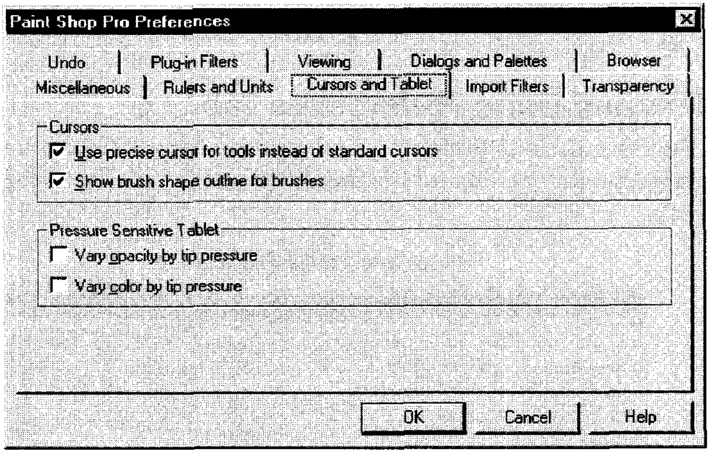
Grid

In the Grid panel, select the units of measurements from the drop-down box (pixels, inches, centimeters) and the horizontal and vertical grid spacing in the units you selected. To change the color of the grid lines, click the Change button to open the Color dialog box, where you can select a new color from the palette. You can even choose a custom color.

Cursors and Tablet Preferences Tab

The Cursors and Tablet Preferences tab options control the appearance of the cursor and the use of pressure-sensitive tablets.

Cursors and Tablet Preferences


Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
OK
Cancel
Help

Cursors

☑ Use precise cursor for tools instead of standard cursors

☑ Show brush shape outline for brushes

Pressure Sensitive Tablet

☐ Vary opacity by tip pressure

☐ Vary color by tip pressure

Cursors

Select the "Use precise cursor for tools" check box if you wish to use a modified cursor instead of the standard Windows cursor. This cursor can provide additional precision for placing and positioning image elements. Select the "Show brush shape outline" checkbox if you wish to have the outer limits of the paintbrush shown when you use the paintbrush tool.

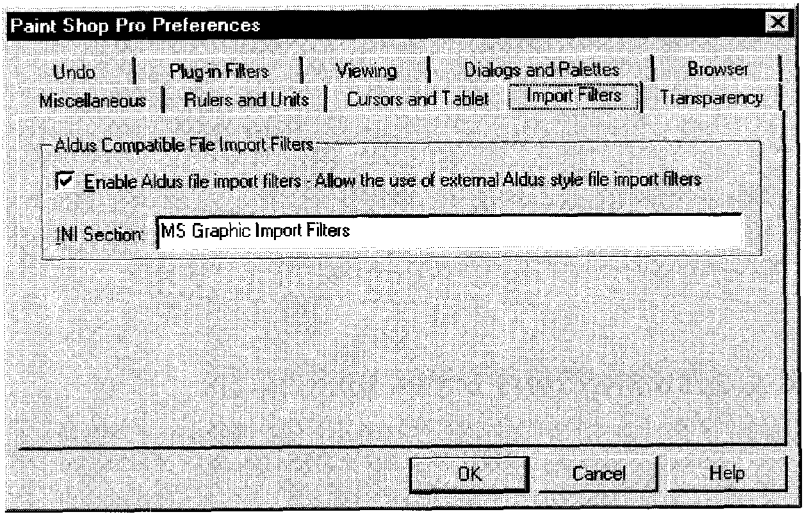
Tablets

Paint Shop Pro allows you to use a pressure-sensitive tablet with a digitizing pen or other input device. Fill in the "Vary opacity" checkbox if you want pressure on the tip of the input device to control opacity. Select the "Vary color" checkbox if you want tip pressure to control color.

Import Filters Preferences Tab

Aldus-compatible format is the Windows standard for file import filters. Paint Shop Pro can use Aldus-compatible filters to read additional file formats.

Import Filters Preferences



Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
OK
Cancel
Help

Aldus Compatible File Import Filters

☑ Enable Aldus file import filters - Allow the use of external Aldus style file import filters

INI Section: MS Graphic Import Filters

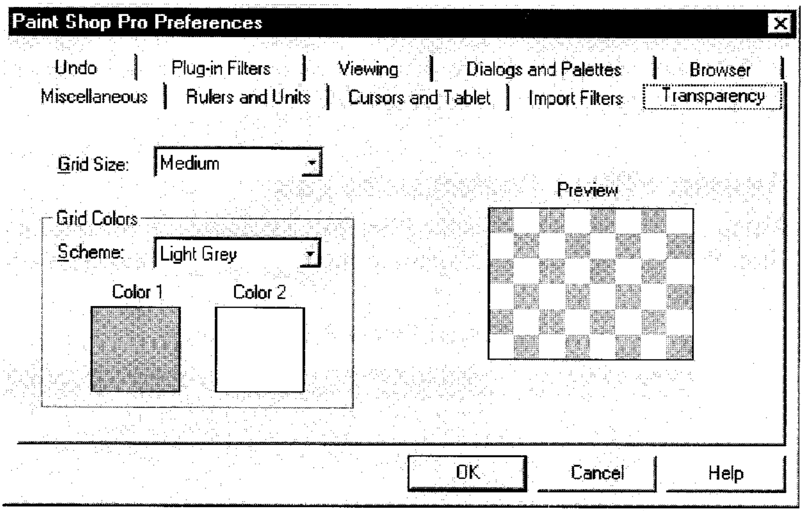
To use Aldus-compatible import filters with Paint Shop Pro:

1. Select the Enable Import Filters check box.
2. Enter the appropriate section heading from your WIN.INI file in the text box For most users, this will be "MS Graphic Import Filters."

Transparency Preferences Tab

The Transparency Preferences tab options control how transparencies appear on the screen.

Transparency Preferences


Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Grid Colors
Color 1
Color 2
Preview
OK
Cancel
Help

Grid Size: Medium

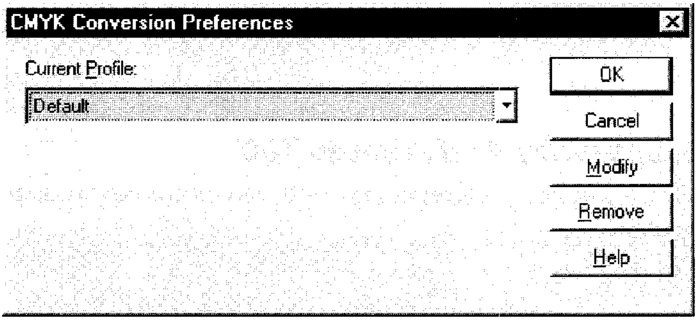
Scheme: Light Grey

Choose the grid size using the drop-down box. (The default is Medium.) Choo grid colors from the Scheme drop-down box. A preview of transparency appearance will be displayed in the right side of the tab.

CMYK CONVERSION PREFERENCES

Paint Shop Pro allows you to print color separations, which is often important i the printing industry. The color separation process is achieved in Paint Shop Pr using a CMYK (cyan, magenta, yellow, and black) conversion. To access the CMYK Conversion Preferences dialog box, choose Preferences from the File menu, and then choose CMYK Conversion Preferences from the Preferences submenu. When you have finished setting preferences, click the OK button.

CMYK Conversion Preferences


CMYK Conversion Preferences
OK
Cancel
Modify
Remove
Help

Current Profile: Default

Select Profile

A profile is a file that contains all the settings for a particular device. All the CMYK settings are stored in a profile.

To select a profile:

1 Click the Current Profile drop-down box to view the profile choices.

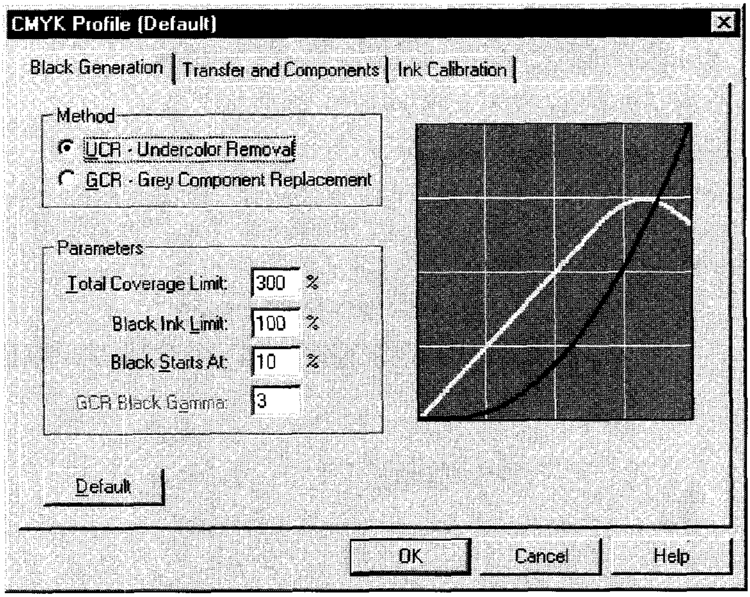
2 Click the profile you want to use.

To remove a profile, click the Remove button.

Modify Profile

To modify a profile, click the Modify button. The CMYK Profile dialog box opens.

CMYK Profile Dialog Box


CMYK Profile (Default)
Black Generation
Transfer and Components
Ink Calibration
Method
Parameters
Default
OK
Cancel
Help

● UCR - Undercolor Removal
○ GCR - Grey Component Replacement

Total Coverage Limit: 300 %
Black Ink Limit: 100 %
Black Starts At: 10 %
GCR Black Gamma: 3

The dialog box includes three tabs: Black Generation, Transfer and Components, and Ink Calibration. Select a tab by clicking it. When you are done modifying a profile, click OK.

Black Generation

The left side of the Black Generation tab includes areas to select methods and parameters for CMYK conversion. The right side displays a graph of the total coverage limit and black ink limit parameters described below.

Select Method

The CMYK Profile dialog box includes option buttons for two methods. Select a method by clicking it.

- Undercolor Removal (UCR) replaces some of the cyan, magenta, and yellow components of neutral grey and shadow areas with black. This helps compensate for some of the trapping problems that occur in multicolor printing.
- Grey Component Replacement (GCR) replaces grey components in colored areas of a reproduction with black. The least prominent color is reduced or removed completely, along with proportional amounts of the other two colors, to define a grey component, which is then replaced with black ink.

Set Parameters

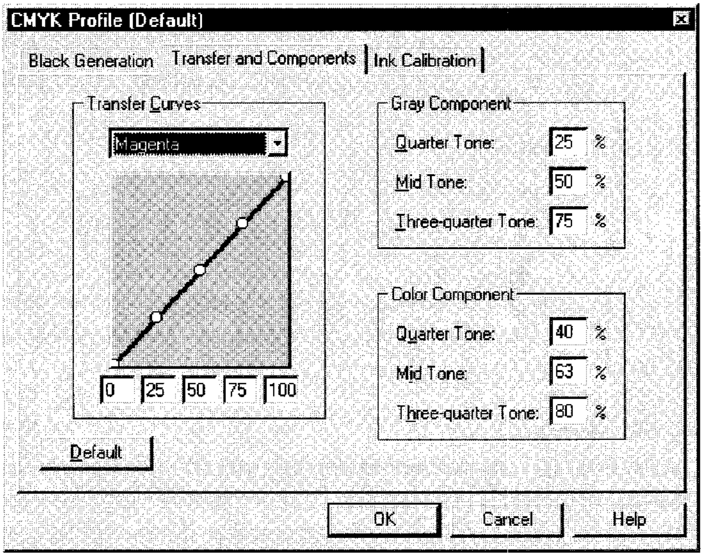
You can set values for the following parameters:

- Total Coverage Limit, which can range from 200 to 400%.
- Black Ink Coverage Limit, which can range from 0 to 200%.
- Black Starts At, which can range from 0 to 100%.
- GCR Black Gamma, which can range from 1 to 4.

Transfer and Components

The left side of the Transfer and Components tab displays a graph of the transfe curves for cyan, magenta, yellow, and black. The right side displays parameters for grey and color components.

Transfer and Components



Magenta

0 25 50 75 100

Gray Component

Quarter Tone: 25 %

Mid Tone: 50 %

Three-quarter Tone: 75 %

Color Component

Quarter Tone: 40 %

Mid Tone: 63 %

Three-quarter Tone: 80 %

Adjust Transfer Curve

Each transfer curve contains five adjustable points that define the curve based on its zero-tone, quarter-tone, mid-tone, three-quarter-tone, and full-tone percentages. The default curve is a straight line from 0 to 100%. A curve that slopes above this 45° line produces darker tones. To select a curve, click the Transfer Curves drop-down box and click the curve. To adjust the curve, click one of the points and drag it up or down. To return to the default curve, click the Default button.

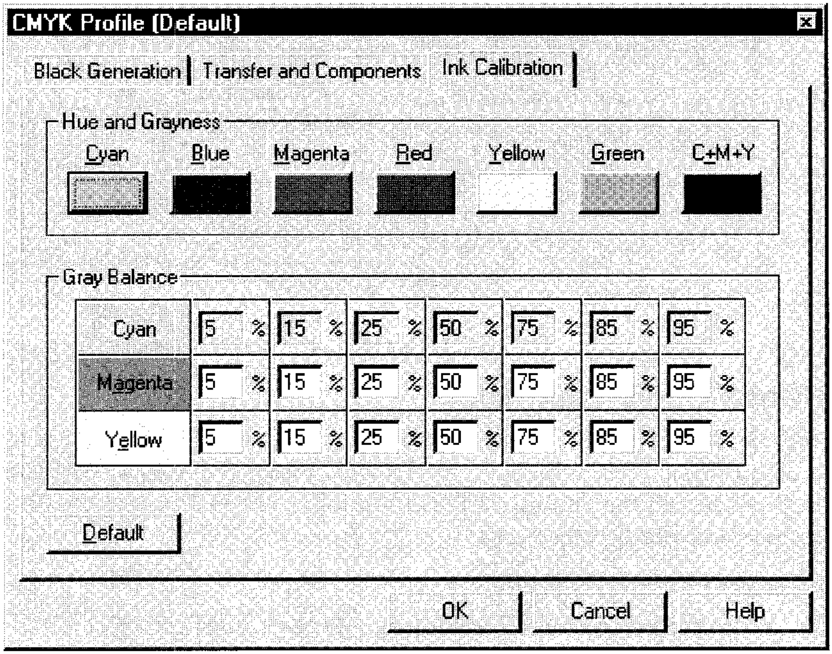
Set Component Percentages

To set grey and color components, type values into the corresponding text boxes. Values can range from 0 to 100%.

Ink Calibration

The Ink Calibration tab provides textboxes to adjust for color shifts. The Hue and Greyness portion displays six colors, along with the combined CMY color. The Grey Balance portion includes the textboxes for adjusting CMY percentages.

Ink Calibration


CMYK Profile (Default)
Black Generation
Transfer and Components
Ink Calibration
Hue and Grayness
Cyan
Blue
Magenta
Red
Yellow
Green
C+M+Y
Gray Balance
Default
OK
Cancel
Help

Cyan	5 %	15 %	25 %	50 %	75 %	85 %	95 %
Magenta	5 %	15 %	25 %	50 %	75 %	85 %	95 %
Yellow	5 %	15 %	25 %	50 %	75 %	85 %	95 %

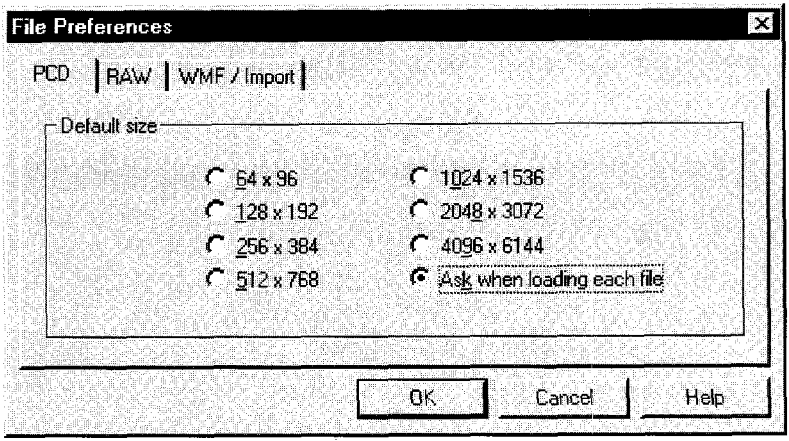
ILE FORMAT PREFERENCES

You can set preferences for the way Paint Shop Pro opens three file formats:

- Photo-CD Format (PCD)
- RAW Format
- Meta/Vector Format (WMF)

To access the File Format Preferences dialog box, choose Preferences from the File menu, and then choose File Format Preferences from the Preferences submenu. The options in the File Format Preferences dialog box are grouped under three tabs. When you have finished setting preferences, click the OK button.

File Format Preferences



Default size

○ 64 x 96
○ 128 x 192
○ 256 x 384
○ 512 x 768
○ 1024 x 1536
○ 2048 x 3072
○ 4096 x 6144
● Ask when loading each file

Photo-CD Format Tab

Kodak Photo-CD (PCD) files contain an image saved in multiple sizes. You selec a default size; then, when you load a PCD image, Paint Shop Pro opens the imag in this size. Set the default PCD size option in the PCD tab of the File Format Preferences dialog box.

To select a default PCD size:

1 From the File Format Preferences submenu, click the PCD tab to bring it to the front if necessary.

2 Click one of the default image sizes.

3 Click OK.

If you selected the "Ask when loading each file" option instead of a size, Paint Shop Pro opens the PCD Size dialog box each time you load a PCD file.

If the image being opened is a protected Pro Photo-CD image, Paint Shop Pro displays an Enter Password dialog box. Enter the password or decryption key that was obtained from the image owner to open the image.

RAW Format Tab

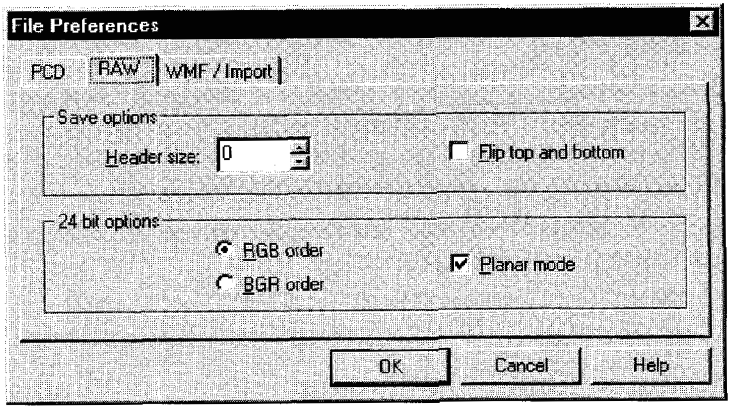
Use the RAW options dialog box to determine how Paint Shop Pro interprets RAW pixel data. For information about a RAW file's format, refer to the documentation for the application that created the image.

To set the RAW format options:

1 From the File Format Preferences submenu, click the RAW tab to bring it to the front.

2 If you are familiar with RAW files, the RAW Options dialog box should be self-explanatory. If you are new to the format, please find and read information about RAW data in general and the file you are trying to open i particular. A discussion of RAW pixel data is beyond the scope of this manual.

RAW Tab



Header size: 0
☐ Flip top and bottom
● RGB order
○ BGR order
☑ Planar mode

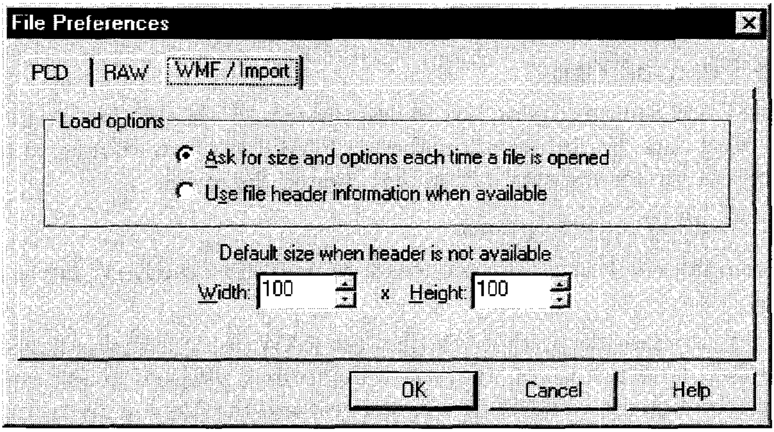
Meta/Vector Format Tab

When you open a file or clipboard image that is in a Windows metafile (WMF) c vector format, you need to select a size for the image using the Meta Picture Import dialog box.

Paint Shop Pro will open the dialog box if:

- You are pasting metafile or vector data from the clipboard.
- You are opening a file and have previously selected the "Ask for size and options each time a file is opened" option in the WMF/Import tab of the Fil Format Preferences dialog box. (See the next page.)

WMF/Import Tab



Load options

● Ask for size and options each time a file is opened
○ Use file header information when available

Default size when header is not available

Width: 100 x Height: 100

Setting the Windows Metafile Import Preferences

To set the metafile format preferences:

1. From the File Format Preferences submenu, click the WMF/Import tab to bring it to the front.
2. Select whether you want Paint Shop Pro to prompt for size and options whe opening a file or to use an available header. If you select to use the header, Paint Shop Pro will attempt to read the header information. If it is unable to, or if there is none, the program will use the default size.
3. If you have selected to use the header information, set a default size to use when no header is available.
4. Click OK.

The Meta Picture Import Dialog Box

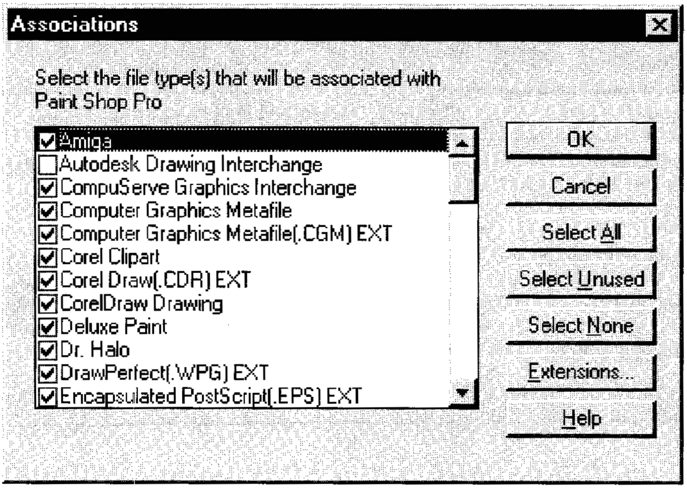
Change the size and/or scale of the image by entering new values in the Width and Height text boxes. You can choose to preserve the image's aspect ratio (kee the width and height proportional) or discard it:

- To preserve the aspect ratio change the width last. When the image is resized, its proportions will be the same because its height will be determined by the new width.
- To open the image without preserving the aspect ratio, change the height last. When the image is resized, its proportions will be determined by the measurements you selected.

ILE ASSOCIATIONS

The File Associations Preferences allow you to select the file types that will be associated with Paint Shop Pro. By associating a file type with Paint Shop Pro, you can open the image by double-clicking it any time. When you choose File Associations from the Preferences menu, the following dialog box appears.

File Associations Dialog Box



Associations

Select the file type(s) that will be associated with Paint Shop Pro

- ☑ Amiga
- ☐ Autodesk Drawing Interchange
- ☑ CompuServe Graphics Interchange
- ☑ Computer Graphics Metafile
- ☑ Computer Graphics Metafile(.CGM) EXT
- ☑ Corel Clipart
- ☑ Corel Draw(.CDR) EXT
- ☑ CorelDraw Drawing
- ☑ Deluxe Paint
- ☑ Dr. Halo
- ☑ DrawPerfect(.WPG) EXT
- ☑ Encapsulated PostScript(.EPS) EXT

The left side of the dialog box lists the various file types. To select a file type fo association, click the box to the left of the file type. You can scroll up and down using the scroll button to the right of the file types, or by using the <Page Up>, <Page Down>, <↑>, <↓>, <Home>, and <End> keys.

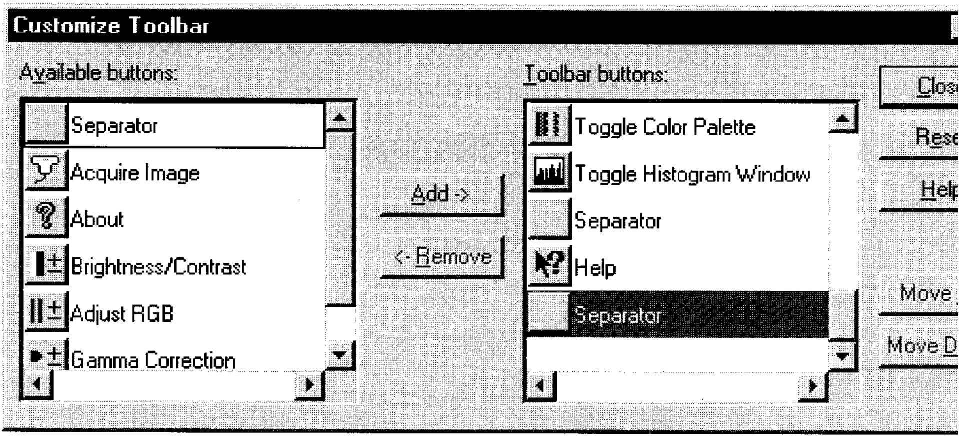
The right side of the dialog box provides keys to select all or none of the file types, as well as the unused file types. To select all file types, click the Select Al button. To select any file types that have not been selected by other application click the Select Unused button. If you do not wish to have any file types associated with Paint Shop Pro, click the Select None button. When you are do making selections, click OK. If you wish to cancel any changes in selections made in the dialog box, click Cancel. This will return the file-type associations t their previous settings.

The selected file types may be changed at any time using the Associations dialo box just described.

USTOMIZING THE TOOLBAR

You can add, remove, and rearrange the buttons on the toolbar. You edit the toolbar from the Customize Toolbar dialog box. To access the dialog box, choose Preferences from the File menu, then choose Customize Toolbar from the Preferences submenu.

Customize Toolbar Dialog Box


Customize Toolbar
Available buttons:
Separator
Acquire Image
About
Brightness/Contrast
Adjust RGB
Gamma Correction
Add ->
<- Remove
Toolbar buttons:
Toggle Color Palette
Toggle Histogram Window
Separator
Help
Separator
Clos
Rese
Help
Move
Move D

Adding a Button or Space

You can add a button or space by dragging the item from the Available Buttons list box to the Toolbar Buttons list box or by using the Add button.

To use the Add button:

1 Click the button that you want to add in the Available Buttons list box. To add a space, click a "Separator" button.

2 Use the Toolbar Buttons list box to select the position where you want to insert the new item. Click the item that currently occupies the position.

3 Click the Add Button. Paint Shop Pro will insert the new button or space at the selected position. If you add a new button, it will be removed from the Available Buttons list box.

Removing a Button or Space

You can remove a button or space by dragging the item from the Toolbar Button list box to the Available Buttons list box or by using the Remove button.

To use the Remove button:

1 Click the button or space that you want to remove in the Toolbar Buttons lis box.

2 Click the Remove button. Paint Shop Pro will remove the selected item from the Toolbar Buttons list box. If you remove a button, it will be added to the Available Buttons list box.

Moving a Button or Separator

You can move a button or separator by dragging the item within the Toolbar Buttons list box or using the Move Up and Move Down buttons.

To use the Move Up and Move Down buttons:

1 Click the button or separator that you want to move in the Toolbar Buttons list box.

2 Click the Move Up button to move the item up one space. Click the Move Down button to move the item down one space.

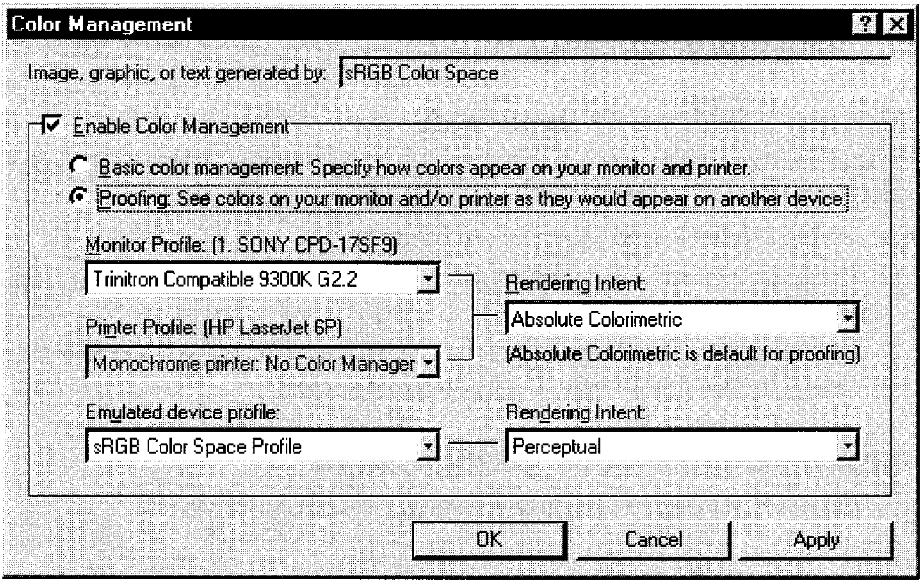
Restoring the Default Configuration

To return the toolbar to its original setting, click the Reset button.

COLOR MANAGEMENT

Color Management is a Windows 98/NT 5 feature that improves color rendition when an image or page is displayed on your monitor and printed by your printer. It also allows you to preview, within the limitations of the monitor, wha the image will look like when printed on a particular color printer. Color profile are installed when the printer or monitor is installed and are used every time colors are displayed or printed. For more information about how Color Management works, refer to your Windows documentation. To use Color Management in Paint Shop Pro, choose Preferences from the File menu, then choose Color Management from the Preferences submenu. The Color Management dialog box appears.

Color Management Dialog Box



Image, graphic, or text generated by: sRGB Color Space

☑ Enable Color Management

○ Basic color management: Specify how colors appear on your monitor and printer.

● Proofing: See colors on your monitor and/or printer as they would appear on another device.

Monitor Profile: (1. SONY CPD-17SF9)
Trinitron Compatible 9300K G2.2

Printer Profile: (HP LaserJet 6P)
Monochrome printer: No Color Manager

Rendering Intent:
Absolute Colorimetric
(Absolute Colorimetric is default for proofing)

Emulated device profile:
sRGB Color Space Profile

Rendering Intent:
Perceptual

1. Select the Enable Color Management check box.
2. Select Basic Color Management if you want to set how colors will appear on your monitor and printer. Select Proofing if you want to preview how colors would appear on a particular device.
3. Select the applicable device profiles and settings in the drop-down boxes.
4. Click OK.

ONITOR GAMMA

You can adjust your monitor's gamma level by choosing Preferences from the File menu, then choosing Monitor Gamma from the Preferences submenu. For more information on Monitor Gamma preferences, refer to Appendix 2, "Computers and Colors."

TUTORIAL LESSON

Image Processing

ABOUT THIS LESSON

This lesson is for novice users of Paint Shop Pro.

This lesson will cover:

- Adjusting the monitor gamma
- Setting the Ruler Display Units and Cursor preferences
- Using the Browser to open an image
- Using the rulers
- Using the Adjust Red/Green/Blue command
- Using the Undo command
- Using the Brightness/Contrast command

During this lesson you are asked to refer to images throughout the text. The images are included in section 1 of the Tutorial folder.

STEP 1 ADJUSTING THE MONITOR GAMMA

Setting the Monitor Gamma is a lot like setting the Brightness and contrast on your television. By adjusting the Monitor Gamma, you ensure that your screen displays images accurately.

Note: Do not adjust the gamma if you are using ICM or creating images for the World Wide Web.

To adjust the Monitor Gamma, do the following:

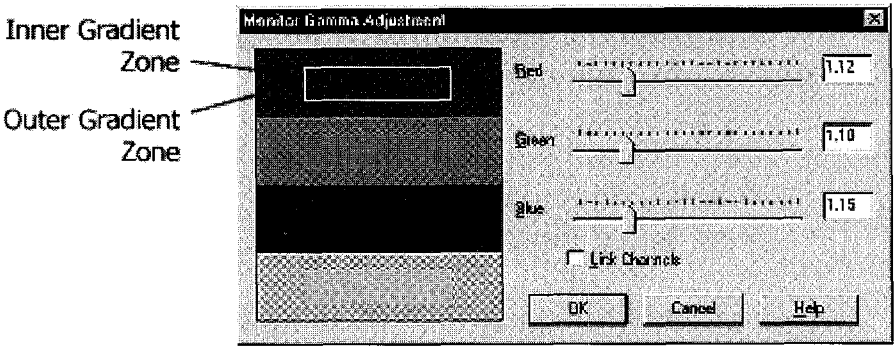
1 In the File menu, choose Monitor Gamma from the Preferences submenu.

2 The Monitor Gamma dialog box opens. If the Link Channels check box is selected, click it to remove the check mark. If it is empty, leave it that way.

To adjust the Monitor Gamma, do the following:

1. In the File menu, choose Monitor Gamma from the Preferences submenu.
2. The Monitor Gamma dialog box opens. If the Link Channels check box is selected, click it to remove the check mark. If it is empty, leave it that way.
3. The Monitor Adjustment dialog box opens showing 4 color gradient zones on the left and the Adjustment sliders on the right.
4. Inside each color zone is an inner gradient zone that is slightly darker or lighter.
5. Drag the slider for each color until the inner gradient zone matches the outer gradient zone.
6. After you have set each slider, click the OK button. The dialog box closes, and Paint Shop Pro applies the new settings.

Monitor Gamma Adjustment Dialog



Inner Gradient Zone

Outer Gradient Zone

Red 1.12

Green 1.10

Blue 1.15

☐ Link Channels

STEP 2 SETTING THE UNITS AND CURSOR PREFERENCES

Units and Cursors

The Units preference controls the units of measurement displayed by the rulers bordering an image. You can select pixels, inches, or centimeters. For this lesson, we will select pixels. The Cursor preference controls the shape of the cursor as you use the Paint Shop Pro tools. For this lesson, we will set the cursor to show the size of a brush.

To set the Units and Cursor preferences:

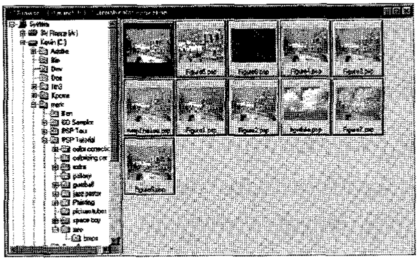
1. In the File menu, choose Preferences, and then choose General Program Preferences.
2. Click the Rulers and Units tab to bring it to the front.
3. In the Rulers panel, select Pixels in the Display Units box.
4. Click the Cursors and Tablets tab to bring it to the front.
5. In the Cursors panel, select the "Use precise cursor for tool instead of standard cursors" check box.
6. Select the "Show brush shape outline for brushes" check box.
7. Click OK to accept the settings.

TEP 3 OPENING AN IMAGE USING THE PAINT SHOP RO BROWSER

Using the Paint Shop Pro Browser

1. Place the Paint Shop Pro CD-ROM in the CD-ROM drive.
2. Open the Paint Shop Pro Browser by choosing Browse from the File menu.
3. The Browser opens. It contains a thumbnail viewing area on the right side and a directory tree structure on the left.

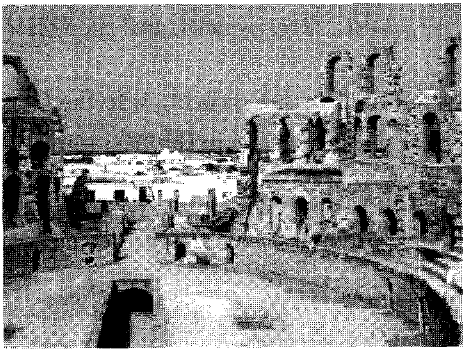
Directory Tree



Browser Thumbnails

4. Select the CD-ROM drive from the directory tree.
5. Select the Tutorial folder.
6. Select Section 1 from the Tutorial folder.
7. Double-click the image titled AMP THEATER. PSP.

AmpTheater.PSP



Choose Rulers from the View menu if you want to display the Horizontal and Vertical rulers. They will show the dimensions of the image in pixels.

Note: You may want to save your lessons on the hard drive as you progress. Then, if you are unable to finish the lesson, you can continue later from where you stopped. To save the file, choose Save from the File menu.

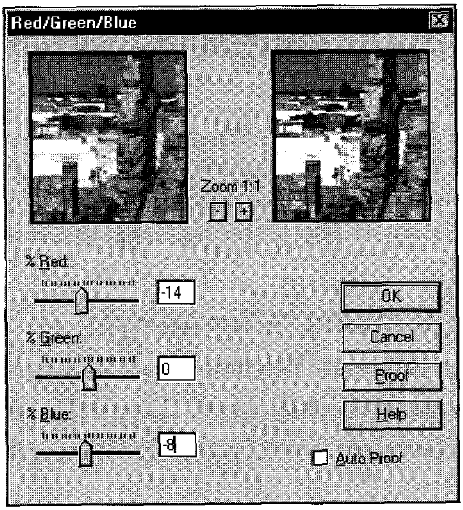
TEP 4 USING THE ADJUST RED/GREEN/BLUE COMMAND

The Red/Green/Blue Adjustment works by adding or subtracting red, green, and blue. Moving an Adjustment slider to the left takes away a percentage of a color; moving it to the right adds a percentage of a color.

You may notice that this image has a reddish blue tint to it.

1. Choose Red/Green/Blue from the Adjust submenu of the Colors menu. The Red/Green/Blue dialog box opens.
2. Drag the Adjustment sliders for each color to 0 if they are not already there.
3. Drag the Red Channel Adjustment slider left to -14.
4. Drag the Blue Channel Adjustment slider left to -8.
5. Click OK to apply the settings.

RGB Adjustment Dialog Box



% Red: -14

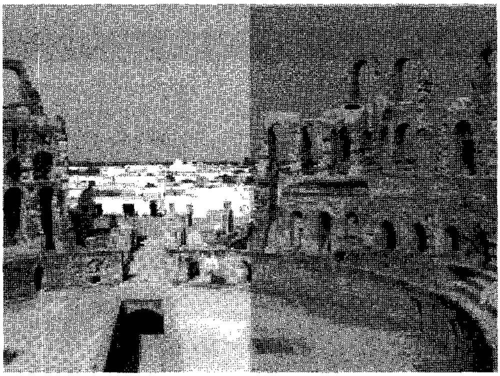
% Green: 0

% Blue: -8

☐ Auto Proof

Your image should look similar to (FIGURE 1.PSP).

Figure 1.psp



USING THE UNDO COMMAND

If you don't like your results, you can use the Undo command to return the image to its original appearance. Paint Shop Pro has implemented Multiple Undo for this version so that you can edit your creation easily.

To use the Undo command:

Choose Undo from the Edit menu.

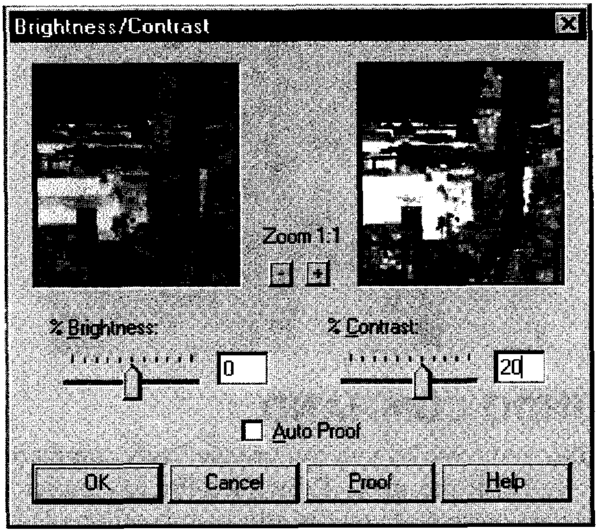
TEP 5 USING COLOR BRIGHTNESS/CONTRAST OMMAND

If the image seems to be washed out, you can boost the color by adjusting the contrast of the image using the Brightness/Contrast command. By entering a positive number in either the Brightness or Contrast fields, you can increase the light and intensity of an image. Entering a negative number will darken or dull an image.

To adjust the contrast of an image:

1. In the Color menu, choose Brightness/Contrast from the Adjust submenu.
2. Center both Adjustment sliders to 0. This places them at the current settings
3. Move the Contrast slider right to 20 to boost the intensity of the highlights and shadows.
4. Click OK to apply the settings.

Brightness Contrast Dialog Box



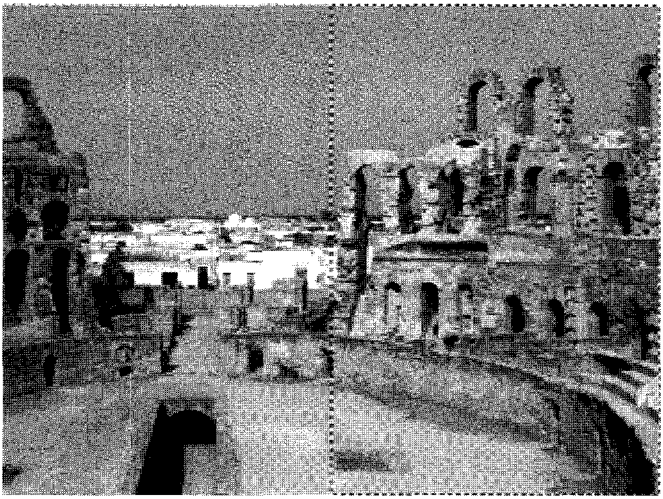
% Brightness: 0

% Contrast: 20

☐ Auto Proof

Your image should look similar to the following figure.

Figure 2.psp 1



In this lesson we:

- Adjusted the Monitor gamma so your images are displayed accurately.
- Set the Ruler display units and Cursor preferences.
- Opened an image with the Browser.
- Displayed the rulers.
- Color corrected an image using the Red/Green/Blue color adjustment.
- Used the Undo command.
- Fine tuned an image using the Brightness/Contrast command.

If you would like more information on this subject, read Chapter 7, "Making Color Adjustments."

Using Effects and Filters

ABOUT THIS LESSON

This lesson is for novice users of Paint Shop Pro.

This lesson will cover:

- Sharpening tools
- Canvas Size
- Resize
- The Filter Browser
- Image Arithmetic function
- Posterize and Solarize

During this lesson you are asked to refer to images on the Paint Shop Pro CD. These images are included in section 2 of the Tutorial folder.

STEP 1 USING THE SHARPEN TOOLS

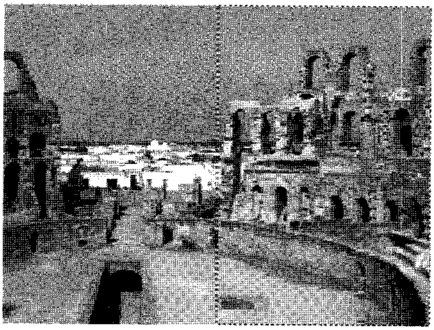
The Sharpen tools help bring out the details of an image that is out of focus. The Sharpen command sharpens an image using a specific default setting. The Unsharp Mask command gives you more options for sharpening an image.

- Setting the radius in Unsharp Mask adjusts the area around each pixel affected by the Sharpening tool.
- Strength sets the degree that the image is sharpened.
- Clipping limits the area affected by the sharpening tool.

To sharpen the image:

1 Open (FIGURE 2. PSP) from the section 2 of the Tutorial folder on the PSP CD

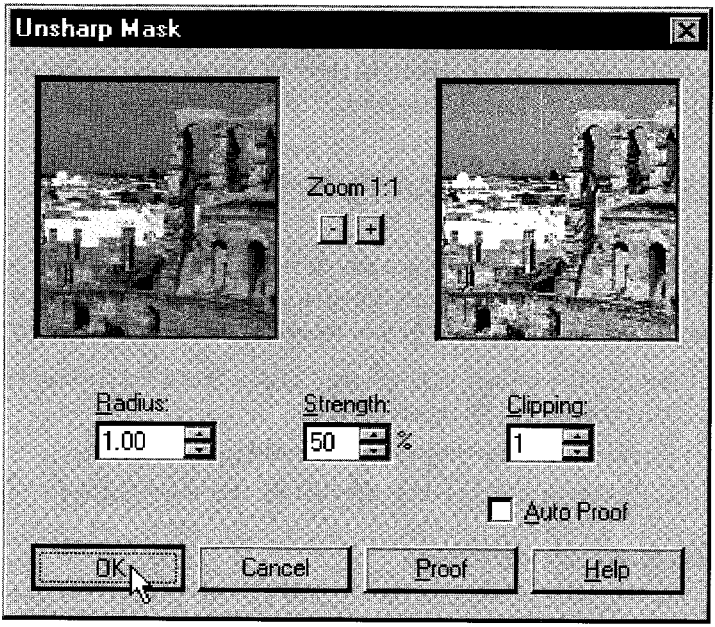
Figure 2.PSP



2 Point to Sharpen and choose Unsharp Mask from the Image menu.

3 In the Unsharp Mask dialog box, set the Radius to 1, the Strength to 50%, an the Clipping to 1.

The Unsharp Mask Dialog Box



Unsharp Mask
Zoom 1:1
-
+
OK
Cancel
Proof
Help

Radius: 1.00

Strength: 50 %

Clipping: 1

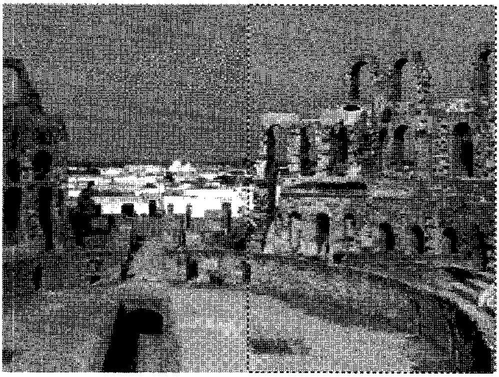
☐ Auto Proof

4 Click OK

Using the Sharpen tools

This will bring out the details in the image as shown in the following figure.

Figure 3.PSP



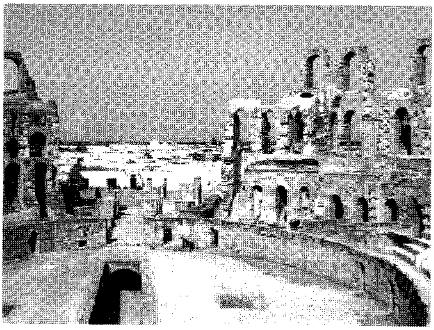
STEP 2 USING CANVAS SIZE

Canvas Size will resize the area where the image is displayed. Increasing the canvas size adds space around the image. Decreasing the Canvas size crops par of the image.

To use canvas size:

1 Open the completely processed image (FIGURE 4.PSP) in section 2 of the Tutorial folder.

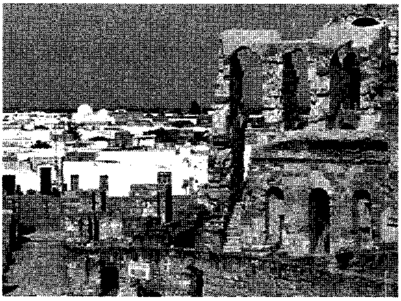
FIGURE 4.PSP



2 Choose Canvas Size from the Image menu. In the Canvas Size dialog box, enter a Width of 320 and a Height of 240.

3 Make sure the Center Image Horizontally and Vertically options are checke and click OK. The image is cropped as in the following figure.

Figure 5.PSP



4 Choose Undo Canvas Size from the Edit menu. The image is returned to its previous size.

TEP 3 USING THE RESIZE COMMAND

The Resize command scales the entire image up or down depending on the size of the dimensions you enter.

To use Resize do the following:

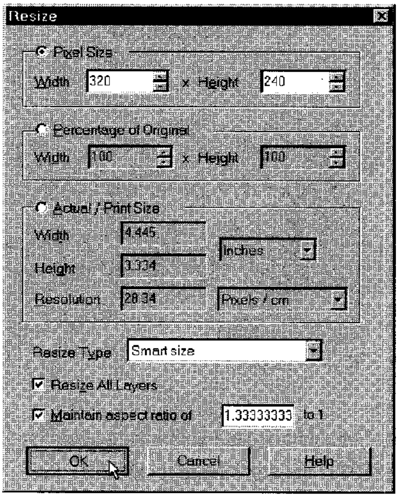
1 Choose Resize from the Image menu to open the Resize dialog box.

2 Select the Pixel Size and Maintain Aspect Ratio options.

3 Change the width to 320 and the height to 240.

4 Click OK to resize the image.

Resize Dialog Box



Resize

● Pixel Size
Width 320 x Height 240

○ Percentage of Original
Width 100 x Height 100

○ Actual / Print Size
Width 4.445
Height 3.334
Inches
Resolution 28.34 Pixels / cm

Resize Type Smart size

☑ Resize All Layers

☑ Maintain aspect ratio of 1.33333333 to 1

5 Display the Control palette by pressing the <O> key on your keyboard.

6 Select the Zoom tool from the Tool palette.

7 On the Controls palette, change the Zoom factor to 1:1.

Note: Paint Shop Pro sometimes chooses to display an image at a lower magnification so that it will fit on the screen. You may want to experime with the Resize command to see how it will affect the overall quality of your image.

To experiment, choose Undo from the Edit menu to return the image to its original size.

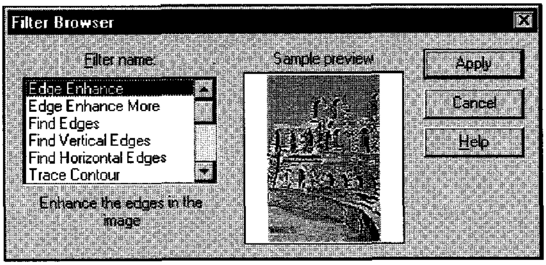
STEP 4 ADDING EFFECTS

There are many ways to add effects to stylize your image. With the Filter Browser, you can choose from the list of filters and see what effect each will hav on your image in the preview window. Try experimenting with the Filter Browser to see what kind of look you can apply.

To use the Filter Browser:

1. From the Image menu, choose the Filter Browser.
2. To see a preview of a filter effect, click its name and look at the Sample preview window.
3. After you select a filter, click Apply.

FILTER BROWSER



Edge Enhance
Edge Enhance More
Find Edges
Find Vertical Edges
Find Horizontal Edges
Trace Contour

Enhance the edges in the image

STEP 5 USING ARITHMETIC

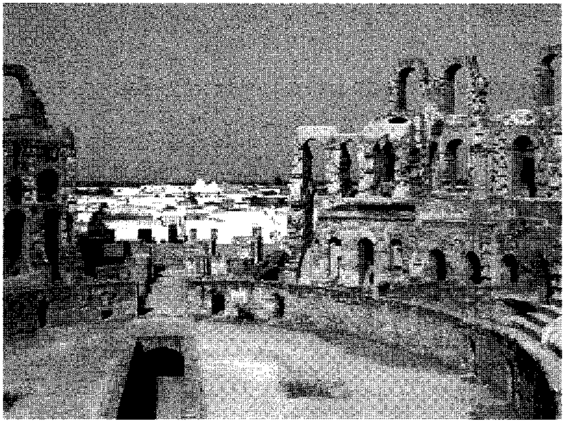
1. Close all your files and reopen FIGURE 4.PSP and LRGWHITE.PSP from the Paint Shop Pro Browser.

   You can combine two images to create interesting composites by using the Image Arithmetic command.

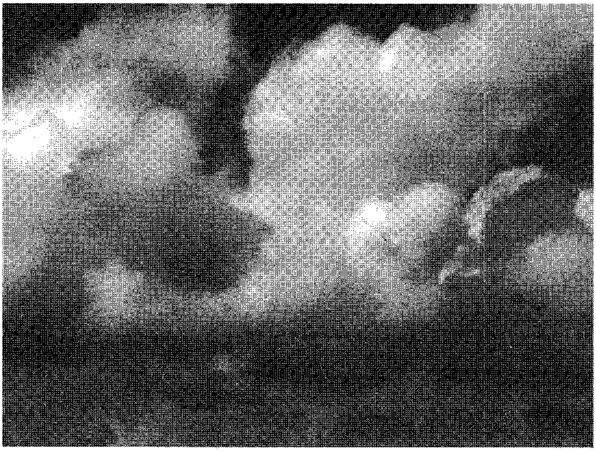
2. Choose FIGURE 4.PSP as the active image and then choose Arithmetic from th Image menu.

3 When the Arithmetic dialog box opens, select FIGURE 4.PSP for Source 1 and LRGWHITE. PSP for Source 2.

Figure 4.PSP



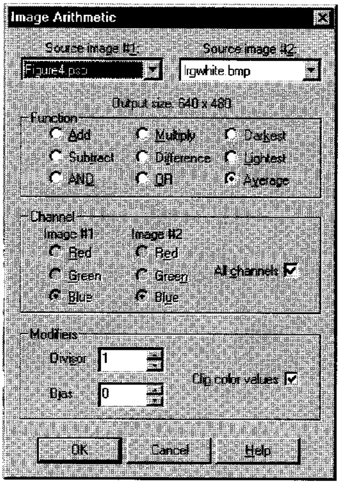
lrgwhite.psp



1 Change the Function to Average and set Channel to All channels. In Modifiers, make sure Divisor is set to 1 and Bias is set to 0.

2 Select Clip color values and click OK.

Image Arithmetic Dialog Box



Source image #1: Figure4.psp

Source image #2: lrgwhite.bmp

Output size: 640 x 480

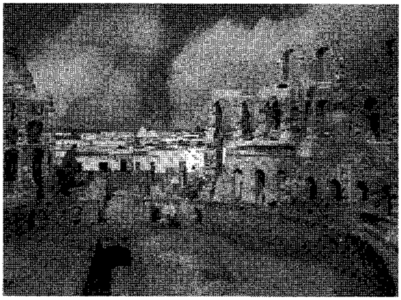
Function
○ Add ○ Multiply ○ Darkest
○ Subtract ○ Difference ○ Lightest
○ AND ○ OR ● Average

Channel
Image #1: ○ Red ○ Green ● Blue
Image #2: ○ Red ○ Green ● Blue
All channels ☑

Modifiers
Divisor 1
Bias 0
Clip color values ☑

FIGURE4.PSP and Lrgwhite.psp are combined to make a composite image as shown in t following figure

Figure 7.PSP



STEP 6 USING POSTERIZE AND SOLARIZE

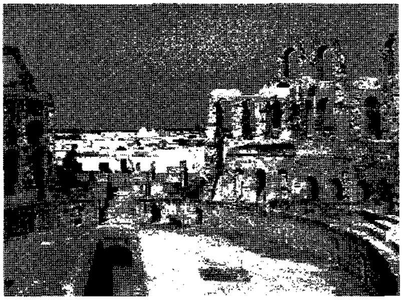
You can apply a few simple effects to your image to modify the colors. The Posterize command reduces the number of colors in an image, while the Solariz command inverts colors above a certain luminance.

Using Posterize

1. Close all files and reopen (FIGURE 4.PSP).
2. Select Posterize from the Color menu to open the Posterize dialog box.
3. In the dialog box, set the Bits per channel to 2.
4. Click OK.

This reduces the colors used in the image and gives it the appearance of a brightly colored painting, as shown in the following image.

Figure 8.PSP



Using Solarize

1. Choose Solarize from the Colors menu to open the Solarize dialog box.
2. In the dialog box, set the Threshold to 100.
3. Click OK.

The vacation photo appears to be converted into an alien landscape.

Figure 9.PSP

In this lesson we:

- Used the Sharpening tools to bring an image into focus.
- Talked about the difference between Canvas Size and Resize.
- Used Arithmetic to combine 2 images.
- Showed how to use the Filter Browser and the Posterize and Solarize dialog boxes to alter an image.

For more information on working with filters, see Chapter 11.

Creating a Transparent Gi

BOUT THIS LESSON

This lesson is for novice users of Paint Shop Pro. It will demonstrate how you can create a transparent Gif image to use on a web page.

This lesson will cover:

- Decreasing the color depth of an image
- Changing the background surrounding an image to transparent
- Saving the processed image as a Gif file

During this lesson you are asked to refer to images throughout the text. The images are included in section 3 of the Tutorial folder on the Paint Shop Pro CD.

EFORE YOU START

It is recommended that you create your image over the same background color a your web page. When you convert the image to a transparent Gif, it will blend seamlessly into the page without a halo.

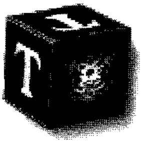
TEP 1 OPEN AN IMAGE

1 In the File menu, choose Browse to open the Paint Shop Pro Browser.

2 Use the Browser to locate the Paint Shop Pro CD-ROM, and then select Section 3 from the Tutorial folder.

3 Find Figure 1.PSP in the right side of the Browser window, and drag it onto the Paint Shop Pro workspace to open it.

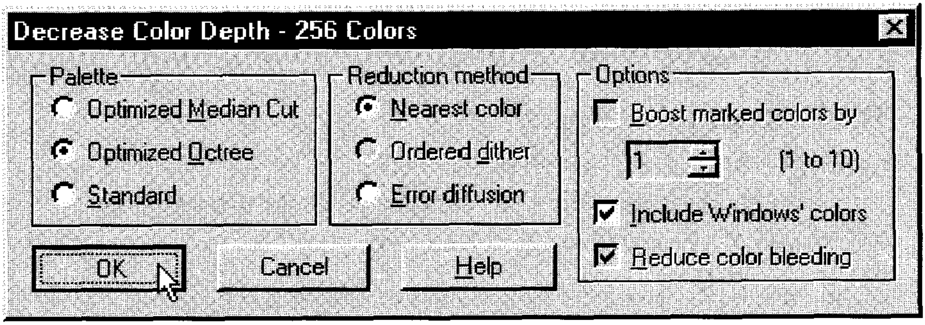
Figure 1.PSP



TEP 2 DECREASE THE COLOR DEPTH OF THE IMAGE

1 In the Color menu, point to Decrease Color Depth, and click 256 Color (8bit).

2 Enter the following selections into the Decrease Color Depth dialog and click OK.



Decrease Color Depth - 256 Colors

Palette
- ○ Optimized Median Cut
- ● Optimized Octree
- ○ Standard

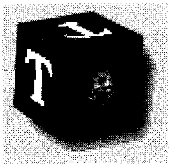
Reduction method
- ● Nearest color
- ○ Ordered dither
- ○ Error diffusion

Options
- ☐ Boost marked colors by 1 (1 to 10)
- ☑ Include Windows' colors
- ☑ Reduce color bleeding

TEP 3 CHOOSE THE TRANSPARENT COLOR

For this particular example, we want to make the background of the image transparent. The background of this image is white. You may be asking, "If the background of my web page is white and the background of my image is white, why does it need a transparent background?"

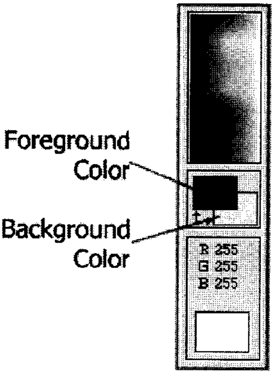
Often when you decrease the color depth of an image, it may slightly change the shades or hues in the file. When you place the graphic on a web page you may get a box around the image similar to the one in the following figure:



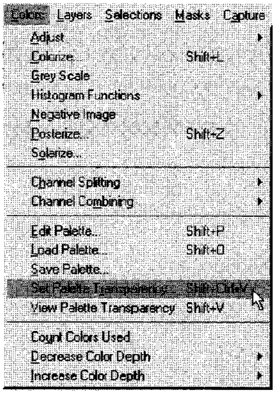
By making the background transparent, you eliminate the chances of this happening.

To make the background transparent:

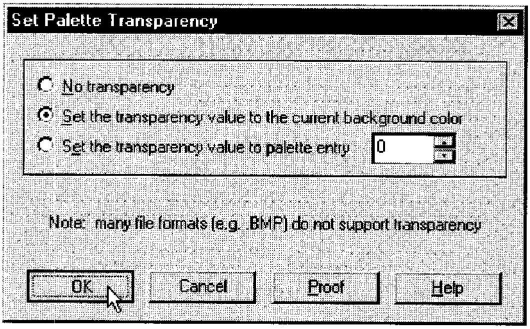
1 Select white as the Background color in the Colors palette.


Foreground Color
Background Color
R 255
G 255
B 255

2 Choose Set Palette Transparency from the Colors menu.


Colors
Layers
Selections
Masks
Capture
Adjust
Colorize... Shift+L
Grey Scale
Histogram Functions
Negative Image
Posterize... Shift+Z
Solarize...
Channel Splitting
Channel Combining
Edit Palette... Shift+P
Load Palette... Shift+O
Save Palette...
Set Palette Transparency... Shift+Ctrl+V
View Palette Transparency Shift+V
Count Colors Used
Decrease Color Depth
Increase Color Depth

3 In the Set Palette Transparency dialog box, change the preferences to the following:



Set Palette Transparency

○ No transparency
● Set the transparency value to the current background color
○ Set the transparency value to palette entry 0

Note: many file formats (e.g. BMP) do not support transparency

OK
Cancel
Proof
Help

TEP 4 SAVE THE IMAGE AS A GIF FILE

1. Choose Save As from the File menu.
2. In the Save As dialog box, choose CompuServe Graphics Interchange (*.gif) from the Type of File list.
3. Call the file "Cube".
4. Click Save to save the file.

TEP 5 CHECK YOUR FILE TRANSPARENCY

There are a number of ways to check the transparency of your file. Two of them are:

- Opening the image in an Internet browser such as NetScape or Internet Explorer.
- Opening the image in Jasc Software's Animation Shop.

For more information about viewing a transparent Gif file, refer to the Animatior Shop manual.

TUTORIAL LESSON

Applying Effects to a Phot

BOUT THIS LESSON

This lesson is for novice users of Paint Shop Pro. It will demonstrate how you can apply effects to a photo to make it look like a painting.

This lesson will cover:

- Using elements under the Color menu
- Applying Filters to an Image
- Using the Color palette
- Adding text to an Image
- Adding text in a Layer

During this lesson you are asked to refer to images on the PSP CD-ROM. These images are included in section 4 of the Tutorial folder.

Open the Paint Shop Pro Browser by choosing Browse from the File menu. Navigate to the CD-ROM and select the Section 4 folder of the Tutorial. Double click the image called (MARINA 03.PSP) to open it.

Marina 03.psp

When you open this image, you will notice that the right half of it has already been selected for you. If you would like to do this on your own, first deselect t right half by choosing Select None from the Selections menu.

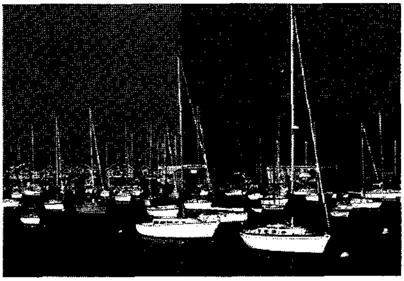
To make a new selection using the Rectangular setting of the Selection tool.

1. Click the Selection tool on the Tool palette.
2. Display the Control palette by clicking the Control palette icon on the toolbar.
3. On the Tool Controls tab of the Control palette, choose Rectangle from the Selection type drop-down box. Set the Feather to 0 and make sure that the antialias is not selected.
4. Click a corner of the image and drag until half the image has been selected.
5. Release the mouse button. A marquee appears around the selected area. Choose Hide Marquee from the Selections menu if you want to hide the Selection marquee.

TEP 1 GAMMA CORRECTION

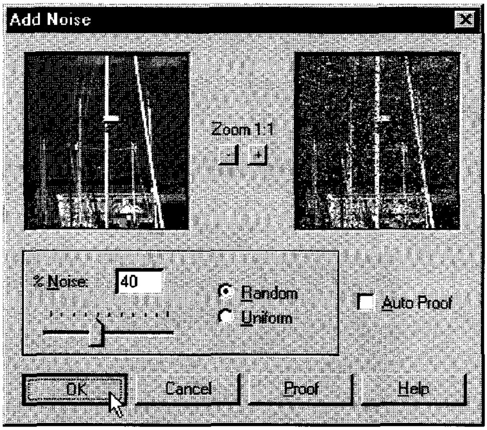
1. In the Colors menu, choose Gamma Correction from the Adjust submenu.
2. Move the sliders and watch how the colors in the selected area of the image change. Try moving the sliders linked together and individually.
3. Another way to boost the image intensity is with the Hue/Saturation/Lightness command. Choose it from the Adjust submenu.
4. Try setting the Hue to 0, the Saturation to 10, and the Lightness to -10.
5. Compare your image to the following figure.

Figure 2.PSP



TEP 2 ADD TEXTURE TO THE IMAGE

1. In the Image palette, choose Noise, and then choose Add.
2. Change the Noise preferences to match those in the Add Noise dialog box shown on the following page.



Add Noise

% Noise: 40

● Random

○ Uniform

☐ Auto Proof

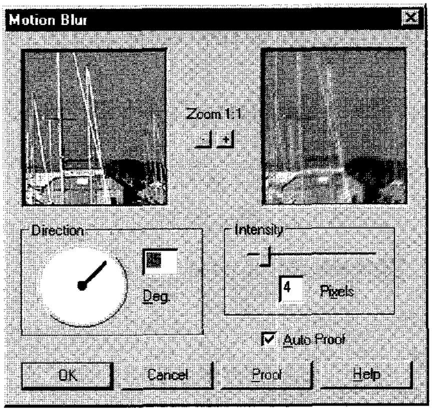
Zoom 1:1
-
+
OK
Cancel
Proof
Help

3 Click OK to accept the settings.

STEP 3 USING MOTION BLUR AND UNSHARP MASK

1 From the Image menu, choose Blur, and then choose Motion Blur.
2 Set the Direction to 45° and the Intensity to 4 pixels, and click OK.
3 In the Image menu, choose Filter Browser, and then choose Median.
4 Click Apply.
5 In the Image menu, choose Unsharp Mask from the Sharpen submenu.
6 Set the Radius to 3.00, the Strength to 90, and the Clipping to 5.
7 Click OK.

Motion Blur Dialog Box



Motion Blur

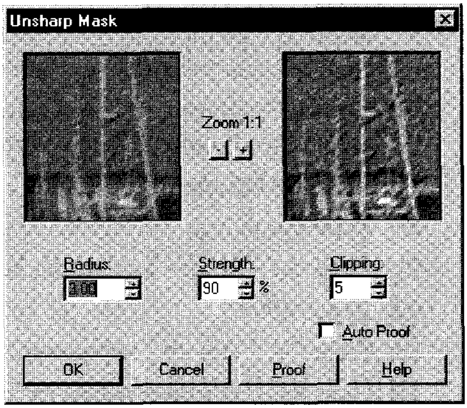
Direction: Deg.

Intensity: 4 Pixels

☑ Auto Proof

Zoom 1:1
-
+
OK
Cancel
Proof
Help

Unsharp Mask Dialog Box



Unsharp Mask

Radius: 3.00

Strength: 90 %

Clipping: 5

☐ Auto Proof

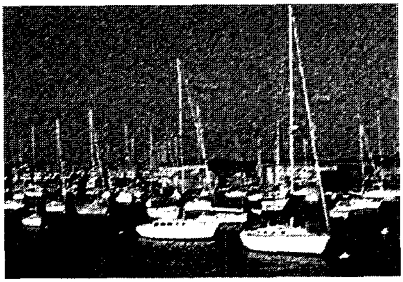
Zoom 1:1
-
+
OK
Cancel
Proof
Help

This changes the image to resemble an Impressionist painting. Compare your results to Figure 3.PSP in the Section 4 folder of the Tutorial.

TEP 4 ADDING TEXT

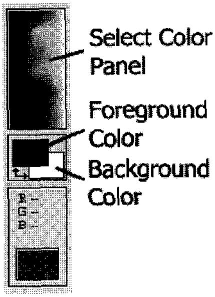
1 Open (FIGURE 4.PSP) to see the fully processed image.

Figure 4.PSP



2 Click the Foreground Color box in the Color Palette, and change the foreground color to black.

3 Click OK.



4 Click the Text tool on the Tool palette.

5 Position the cursor in the upper 1/3 of the screen near the center and double-click to open the Add Text dialog box.

6 Choose 36 point Arial, and select the text effect Antialias. This will smooth the text and make it easier to read.

7 Set the Alignment to Centered.

8 Type the words "Summer Vacation."

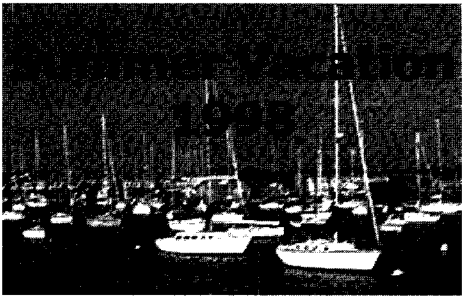
9 Press the <Enter> key on the keyboard. This creates a new line of text.

10 Type "1998."

11 Click OK. The text appears in the image.

12 Drag the text into position in the sky above the boats.

13 Right-click to accept the positioning.



At this point you have a few options:

- You can undo the Text tool and choose a different font, color, or text size.
- You may even want to change wording or the position of the title.

However, as soon as you right-click the mouse, the text becomes part of the image and you can no longer edit it. There is a way around this. Use layers!

STEP 5 USING TEXT IN A LAYER

1. Choose Undo from the Edit menu.
2. If the Layer palette is not visible, choose Toolbars from the View menu, sel the Layer palette check box, and click OK. The palette contains one layer, called "Background."
3. Click the Add Layer button at the bottom left corner of the Layer palette.
4. Type "Text" in the Name box of the Layer Properties dialog box, and click OK.
5. With the Text layer selected, create the text again using the same method a in Step 4.
6. Now the text is in its own layer, independent of the background.
7. You can move it, delete it, change the color, apply effects to it, and only th text will be affected. That's the great thing about layers. It enables you to create each element in a separate level, thereby allowing you to edit each element independently.

STEP 6 CHANGING TEXT POSITION AND COLOR AND ADDING A DROP SHADOW

1. Let's say that you'd like the text to be white instead of black. With the tex layer active in the Layers palette, choose Select All from the Selections me

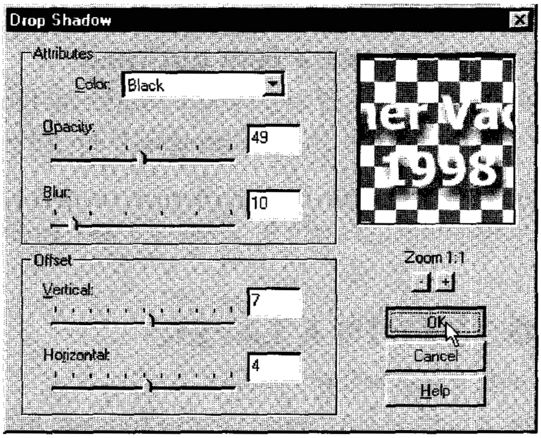
2 Press the Delete key and the text is gone. The background image remains because the text was placed in a layer above it.

3 Select white as the Foreground color on the Color palette.

4 Use the Text tool to add text to the image again. You can move the text by selecting the Mover tool from the Tool palette.

5 In the Edit menu, point to Effects and choose Drop Shadow.

6 Set the Drop Shadow options to the following:



Drop Shadow

Attributes

Color: Black

Opacity: 49

Blur: 10

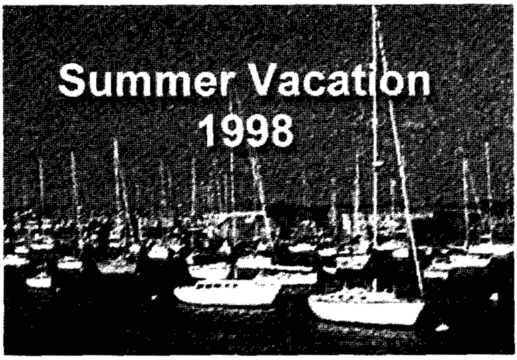
Offset

Vertical: 7

Horizontal: 4

7 Click OK. Your poster image should look similar to (FIGURE 5.PSP).

Figure 5.PSP



In this lesson we:

- Opened an image and corrected the gamma.
- Added noise and motion blur to the image to give it a paint-like appearance.
- Added text to make a title graphic for the image.

If you would like more information on this type of subject, read Chapter 11.

TUTORIAL LESSON

Using Layers to Coloriz
Photo

ABOUT THIS LESSON

This lesson is for novice users of Paint Shop Pro.

This lesson will cover:

- Adding layers to an image
- Using the Paint Brush tool to create the colorizing area
- Using the Layer Blend Mode to colorize areas in a photograph

During this lesson you are asked to refer to images on the Paint Shop P CD. These images are included in Section 5 of the Tutorial folder.

STEP 1 OPEN THE CAR IMAGE AND ADD A NEW LAYER

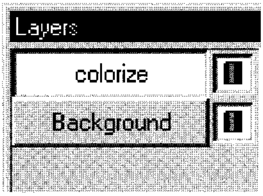
1 From the File menu, choose Browse to open the Paint Shop Pro Browser.

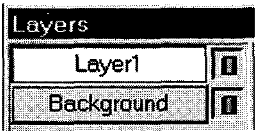
2 Select Section 5 in the Tutorial folder from the Paint Shop Pro CD.

3 Double-click the thumbnail of CAR004.PSP to open the image.

4 In the Layers menu, choose New. The Layer Properties dialog box opens.

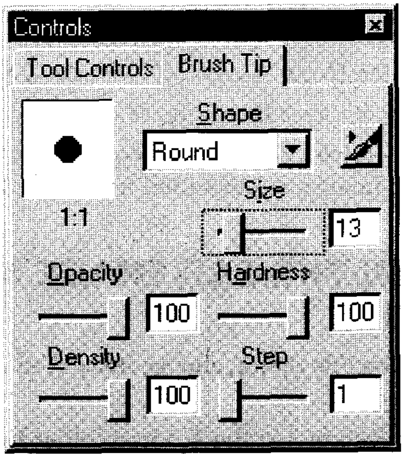
5 In the Name text box, type "Colorize," and then click OK.




Layers
Layer1
Background

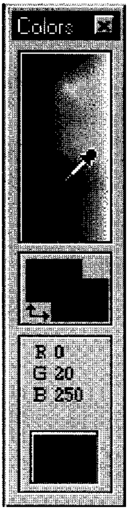
TEP 2 PAINT OVER THE BODY OF THE CAR

1. Click the Paint Brush button on the Tool palette.
2. Choose Toolbars from the View menu to open the Toolbars dialog box.
3. Select the Control palette check box, and then click OK.
4. In the Brush Tip tab of the Control palette, change the properties to the following:


Controls
Tool Controls
Brush Tip
1:1

Shape: Round
Size: 13
Opacity: 100
Hardness: 100
Density: 100
Step: 1

5. Select blue from the Color palette.

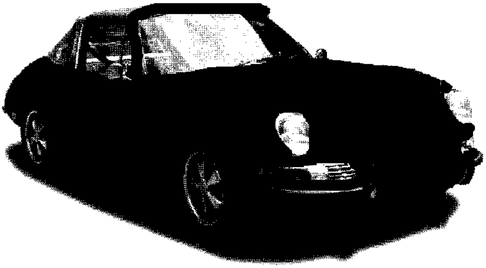


R 0
G 20
B 250

8 On the Colorize layer, paint over the body of the car.

When you are finished, your results should look similar to FIGURE 1.PSP shown below and in section 5 of the Tutorial.

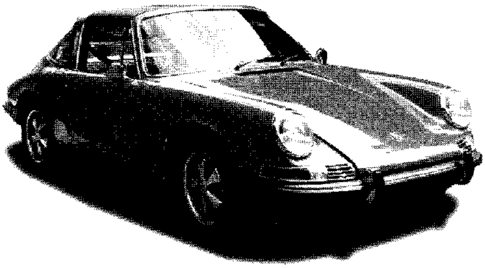
Figure 1.PSP



TEP 3 CHANGE THE BLEND MODE

1. On the Layer palette, change the Layers Blend Mode of the Colorize layer to Color.
2. Click the Background layer to make it the current layer.
3. In the Colors menu, choose Hue/Saturation/Lightness from the Adjust submenu. The Hue/Saturation/Lightness dialog box opens.
4. Change the saturation to -100, and click OK.
5. Select the Eraser brush from the Tool palette.
6. Click the Brush Tip tab of the Control palette to bring it to the front.
7. Set the Eraser options to the following: set Shape to round, Size to 20, Hardness, Opacity and Density to 100, and Step to 1.
8. Erase the areas where the blue is overlapping, as shown in FIGURE 2. PSP

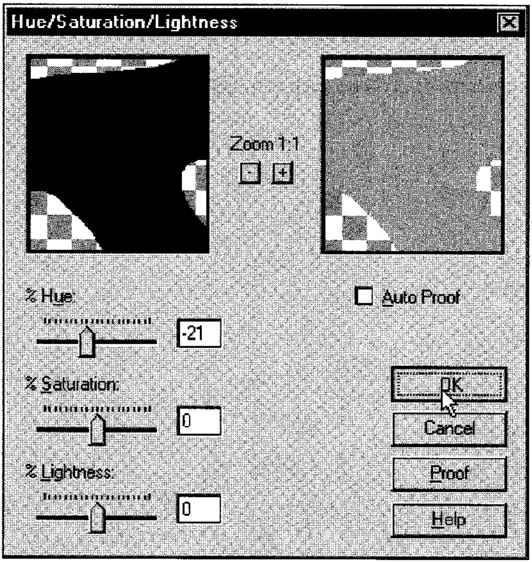
Figure 2.PSP



STEP 4 CHANGE THE COLOR OF THE CAR

1. In the Colors menu, choose Hue/Saturation/ Lightness from the Adjust submenu.
2. Drag the sliders to 0 if they aren't already there.
3. Change the car to a green color by moving the Hue slider to -21, as shown in the following figure.

HLS Dialog Box


Hue/Saturation/Lightness
Zoom 1:1
OK
Cancel
Proof
Help

% Hue: -21

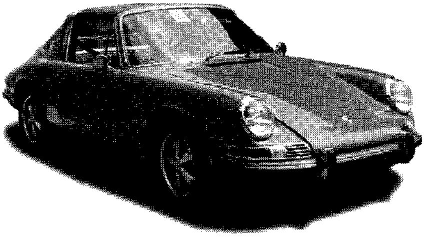
% Saturation: 0

% Lightness: 0

☐ Auto Proof

You results should look similar to FIGURE 3.PSP shown below and in the Tutorial folder.

Figure 3.PSP



You can experiment with the Hue slider and see how the color changes.

In this lesson we:

- Opened the image of the car and added a new layer to it.
- Used the Paint Brush on the Colorize layer to paint over the body of the car on the layer underneath.
- Set the Layer Blend Mode of the Colorize layer to Color to change the color of the car.

For more information on Layers, read Chapter 9, "Working With Layers."

Using Layers and Filter

ABOUT THIS LESSON

This lesson is for intermediate users of Paint Shop Pro.

This lesson will cover:

- Opening and combining images using the Browser
- Using the Move tool
- Using Filters
- Using the Deformation tool to scale and rotate
- Using the Layer Blend Mode
- Using Opacity sliders

During this lesson you are asked to refer to images on the Paint Shop P CD. These images are included in section 6 of the Tutorial folder.

STEP 1 ADD TEXTURE TO THE BACKGROUND

1. Open the Paint Shop Pro Browser, navigate to the Paint Shop Pro CD-ROM, and select section 6 from the Tutorial folder.
2. Click the thumbnail of FIGURE 1.PSP and drag it to the workspace t open the image.

Figure 1.PSP

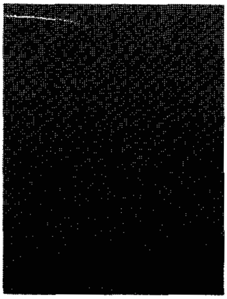
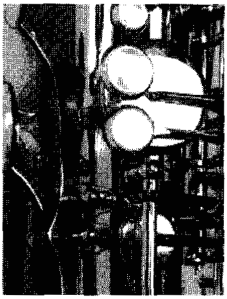
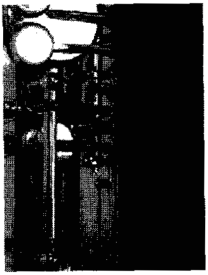


Figure 2.PSP



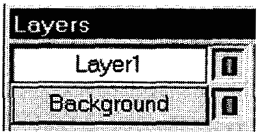
3 In the Browser, click the thumbnail of FIGURE 2.PSP and drag it into FIGURE 1.PSP. The saxophone image is automatically pasted into FIGURE 1.PSP as a new layer, as shown in the following figure.



4 Select the Mover tool from the Tool palette.

5 Click and drag the saxophone image into place so it covers the gradient background image behind it.

6 On the Layers palette, double-click the Layer 1 button to open the Layer Properties dialog box.



7 In the Layers Properties dialog box, change the Name to "Sax texture."

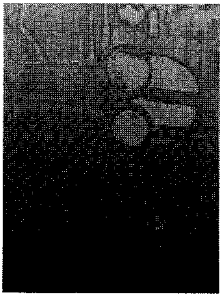
8 Change the Layer Blend Mode from Normal to Dodge, and then set the Opacity to 50.

9 Click the OK button to close the dialog box.

10 In the Image menu, choose Hot Wax Coating from the Other submenu.

Notice how the image takes on a watercolor appearance as shown in the following figure.

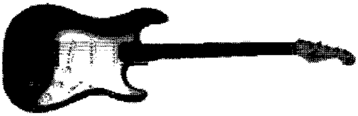
Figure 3.PSP



STEP 2 PROCESS THE GUITAR IMAGE

1 In the Browser, click the thumbnail of GUITAR003.PSP and drag it into the Jazz Poster image.

Guitar003.PSP



The red guitar image is added to the Jazz Poster image as a new layer.

1 Open the Layer Properties dialog box and name the new layer "Red Guitar."

STEP 3 SCALE THE GUITAR IMAGE

1 Double-click the Deform tool on the Tool palette to open the Deformation Settings dialog box. This dialog box allows you to enter scaling or rotation numerically.

2 In the Scale box, enter 145 for both the X and Y settings.

3 Click OK to close the dialog box and scale the image.

STEP 4 POSITION THE GUITAR AND SET THE BLEND MODE

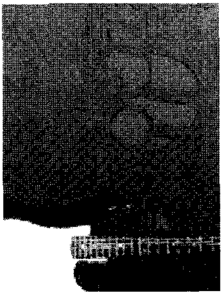
1 With the Red Guitar layer current, select the Mover tool from the Tool palette.

2 Hold down the<Shift> key and click the guitar in the image.

By holding down the <Shift> key, you constrain your selection to the red guitar layer. If you do not hold down the <Shift> key when you click the image, you will choose the layer under the red guitar.

3 Position the guitar at the bottom of the screen as shown in the following figure.

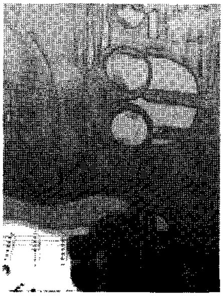
Figure 4.PSP



4 Set the Layer Blend Mode of the Red Guitar layer to Dodge.

5 Drag the Opacity slider to 49 in the Red Guitar layer. Check your results with FIGURE 5.PSP in section 6 of the Tutorial folder.

Figure 5.PSP



TEP 5 ADD THE BRASS INSTRUMENTS

1 In the Browser, click the TRUMPET 004.PSP thumbnail and drag it into the Jazz Poster image.

2 The trumpet image is automatically added to the Jazz Poster as a new layer.

3 In the Layers palette, double-click the new layer to display the Layer Properties dialog box.

4 Name the new layer "Trumpet."

5 Double-click the Deformation tool on the Tool palette to open the Deformation Settings dialog box. In the Scale box, enter 150% for the

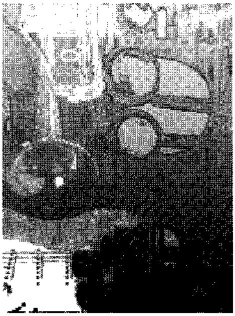
X and Y settings.

6 Click OK to scale the image of the trumpet.

7 Change the Layer Blend Mode to Dodge and move the Opacity slide to 66.

8 Position the trumpet in the upper left corner of the image. Your results should look similar to the following figure.

Figure 6.PSP



9 In the Browser, click and drag the thumbnail of TROMB 001.PSP into the Jazz poster image. The trombone is pasted into the Jazz Poster a a new layer.

10 Name the new layer "Trombone."

11 Double-click the Deform tool to open the Deformation Settings dialog box.

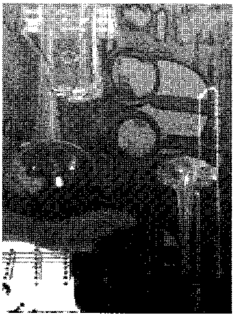
12 Set the Scale to 200% in the X and Y axis, and then click OK.

13 Select the Mover tool from the Tool palette.

14 Drag the trombone image to the lower right corner.

15 On the Layer palette, set the Layer Blend Mode of the trombone layer to Dodge and drag the Opacity slider to 76. Compare your results with FIGURE 7.PSP in section 6 in the tutorial.

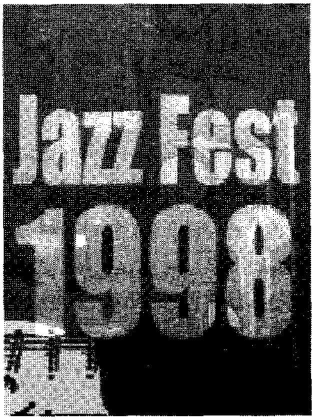
Figure 7.PSP



TEP 6 ADD THE TITLE

1. Choose New from the Layers menu.
2. Call the new layer "Jazz Fest."
3. Select a bright yellow from the Color palette.
4. Click the Text tool on the Tool palette and then click near the middle of the image.
5. Type "Jazz Fest" in the dialog box. For this exercise, we used 65 point Impact Regular. Click OK to close the dialog box.
6. Move the text to the center of the poster, as shown in the image below.
7. Create a new layer and call it "1998."
8. Select the text tool, click the image, and use the dialog box to type 1998 in 85 Point Impact.
9. Click OK to create the text, and then place the number directly under the Jazz Fest title.
10. Set the title Layer Blend Mode to Dodge and compare your results with FIGURE 8.PSP in the Browser.

Figure 8.PSP



In this lesson we:

- Used the Browser to combine images.
- Blended the instruments using the Layer Blend Mode.
- Created another new layer and added a title to the image.

f you would like more information on layers, read Chapter 9,"Working With ayers."

TUTORIAL LESSON

Creating a Picture Tube

ABOUT THIS LESSON

This lesson is for intermediate users of Paint Shop Pro. It demonstrates how to create and apply a Picture Tube. Picture Tubes allow you to paint an image using customized shapes.

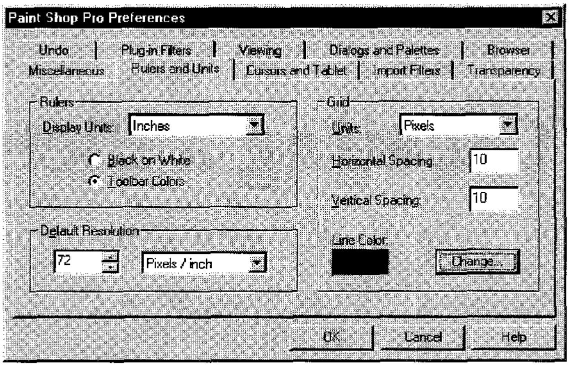
This lesson will cover:

- Formatting and using a grid in an image
- Create your own Picture Tube using the Text tool
- Adding a drop shadow to the picture tube

During this lesson you are asked to refer to images on the Paint Shop Pro CD. These images are included in section 7 of the Tutorial folder.

NITIAL SETUP

1. In the File menu, point to Preferences and choose General Preferences.
2. Click the Rulers and Units tab.
3. Set the Grid options to the following:
    - Units - Pixels
    - Horizontal Spacing - 100
    - Vertical Spacing - 100


Paint Shop Pro Preferences
Undo
Plug-in Filters
Viewing
Dialogs and Palettes
Browser
Miscellaneous
Rulers and Units
Cursors and Tablet
Import Filters
Transparency
Change...
OK
Cancel
Help

Rulers
Display Units: Inches
○ Black on White
● Toolbar Colors

Default Resolution
72 Pixels / inch

Grid
Units: Pixels
Horizontal Spacing: 10
Vertical Spacing: 10
Line Color: ■

4 Click the Change button at the lower right corner to change the color of the grid lines.

5 In the Color dialog box, select a red.

6 Click OK to close the Color dialog box and change the Line Color to red.

7 Click OK to close the Preferences dialog box.

STEP 1 CREATE THE PICTURE TUBE

1 Open a New document 300 pixels Wide and 300 pixels high with a transparent background.

2 In the View menu, choose Grids to display the grid. Your beginning image should look like FIGURE 1.PSP

FIGURE 1.PSP

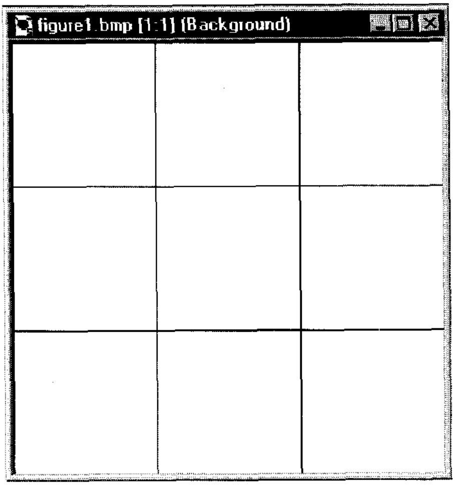
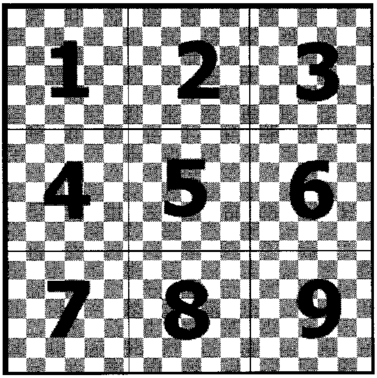


figure1.bmp [1:1] (Background)

TEP 2 CREATE THE PICTURE TUBE WITH THE TEXT OOL

1. Click the Text tool on the Tool palette.
2. Place the numbers 1 through 9 in each of the squares in the grid as in FIGURE 2.PSP. You may use any color except white for this exercise. For this example we selected blue.

FIGURE 2.PSP



DD A DROP SHADOW TO THE NUMBERS

1. Click the Magic Wand tool on the Tool palette.
2. On the Tool Controls tab, set the Tolerance to 1 and the Feather to 0.
3. Click the background of the image to select it.
4. In the Selections menu, choose Select Similar.
5. Choose the Invert command. Now the text is selected.
6. In the Image menu, choose Drop Shadow from the Effects submenu.

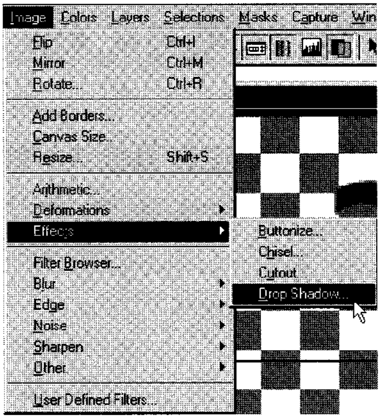
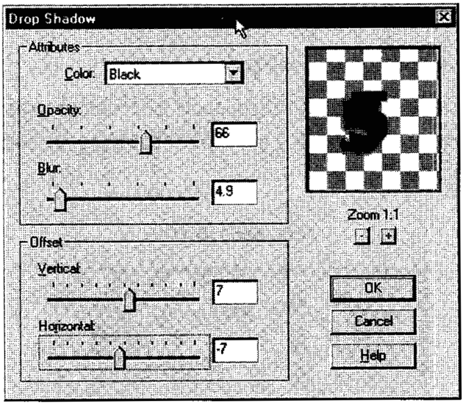


Image
Colors
Layers
Selections
Masks
Capture
Win
Flip Ctrl+I
Mirror Ctrl+M
Rotate... Ctrl+R
Add Borders...
Canvas Size...
Resize... Shift+S
Arithmetic...
Deformations
Effects
Filter Browser...
Blur
Edge
Noise
Sharpen
Other
User Defined Filters...
Buttonize...
Chisel...
Cutout
Drop Shadow...

7 In the Drop Shadow dialog box, enter the following options:


Drop Shadow
Attributes
Offset
Zoom 1:1
OK
Cancel
Help

Color: Black

Opacity: 66

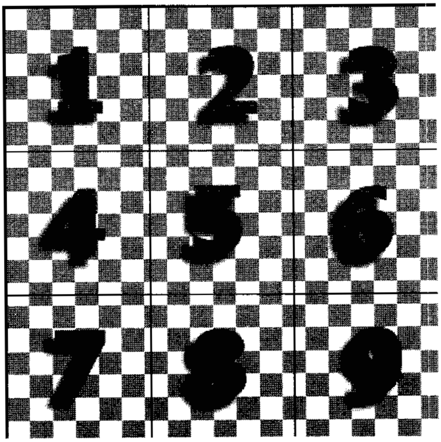
Blur: 4.9

Vertical: 7

Horizontal: -7

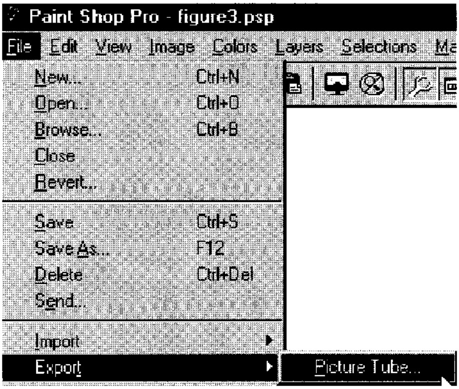
8 Click OK. Your results should look similar to Figure 3.PSP in section 7 of th
tutorial folder.

Figure 3.PSP

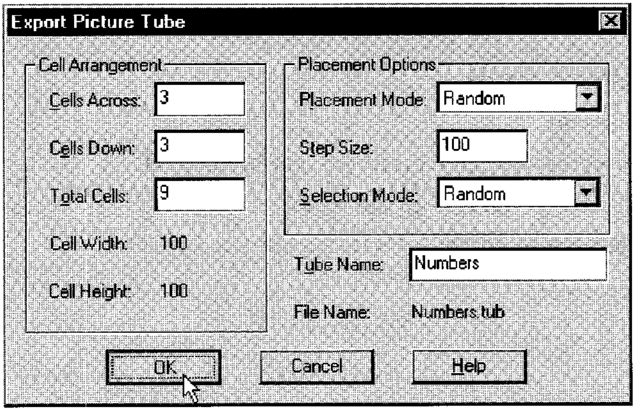


TEP 4 EXPORT THE SCREEN AS A PICTURE TUBE

1 Choose Export, Picture Tube from the File menu.


Paint Shop Pro - figure3.psp
File
Edit
View
Image
Colors
Layers
Selections
New... Ctrl+N
Open... Ctrl+O
Browse... Ctrl+B
Close
Revert...
Save Ctrl+S
Save As... F12
Delete Ctrl+Del
Send...
Import
Export
Picture Tube...

2 In the Export Picture Tube dialog box, change the Cells Across to 3, the Cell Down to 3, and the Step Size to 200.


Export Picture Tube

Cell Arrangement

Cells Across: 3

Cells Down: 3

Total Cells: 9

Cell Width: 100

Cell Height: 100

Placement Options

Placement Mode: Random

Step Size: 100

Selection Mode: Random

Tube Name: Numbers

File Name: Numbers.tub

OK
Cancel
Help

3 Type "Numbers" for the tube name in the Tube Name box.

4 Open a new file 640 x 480, with a white background.

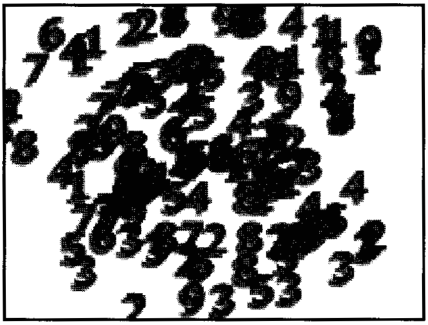
5 Click the Picture Tubes button on the Tool palette.

6 On the Control palette, click the Tool Controls tab to bring it to the front.

7 Select Numbers from the Tube drop-down box.

8 Paint in the image. Notice how the Picture Tube cycles from one number to the next as you drag the cursor, as shown in the following figure.

Figure 4.PSP



You can create a Picture Tube with Photos, painted patterns, and textures. Try experimenting by pasting different items into the grid and applying filters to them.

In this lesson we:

- Set up a grid.
- Used text tool to place numbers inside the grid.
- Added a drop shadow to the text
- Exported the image as a Picture Tube.

TUTORIAL LESSON

Create a Collage Usin Mask

ABOUT THIS LESSON

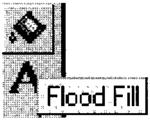
This lesson is for advanced users of Paint Shop Pro.

This lesson will cover:

- Creating a gradient background using the Fill tool
- Pasting an image as a new layer
- Creating a mask
- Editing a mask using the Airbrush tool
- Adding text to your final image

During this lesson you are asked to refer to images on the Paint Shop Pro CD. These images are included in section 8 of the Tutorial folder.

STEP 1 CREATE A GRADIENT FILL USING THE FILL TOOL

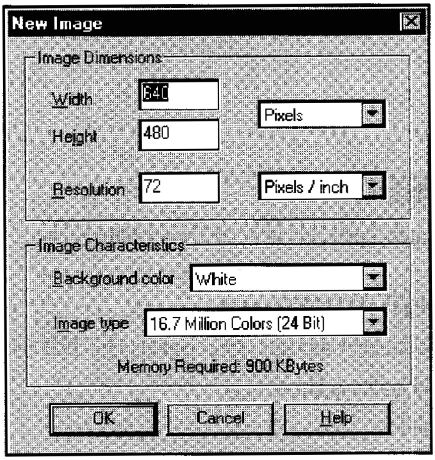


The Flood Fill tool allows you to flood an area quickly with a solid color, patter or gradient. The Gradient and Pattern fills can only be performed on 24 bit or grey scale images.

Here's how to create a gradient fill

1. Open a new file by choosing New from the File menu.
2. Create a new file and type in a Height of 640 and a Width of 480 pixels.
3. Type 72 in the Resolution box and set the units to Pixels/inch.
4. Make the Background white and the image type 16.7 million colors (24 Bit).
5. Click OK.

New File Dialog Box



New Image

Image Dimensions

Width: 640

Height: 480

Pixels

Resolution: 72

Pixels / inch

Image Characteristics

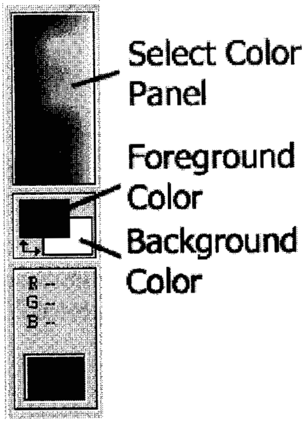
Background color: White

Image type: 16.7 Million Colors (24 Bit)

Memory Required: 900 KBytes

6. In the Color palette, choose a gold color for the foreground by clicking the color in the Select Color panel (the color spectrum display).
7. Now choose a dark green color for the background color by right-clicking the Select Color panel.

Color Palette



8 Click the Flood Fill tool on the Tool palette.

9 On the Control palette, click the Tool Controls tab to bring it to the front (if necessary).

10 Click the Options button to open the Flood Fill Options dialog box.

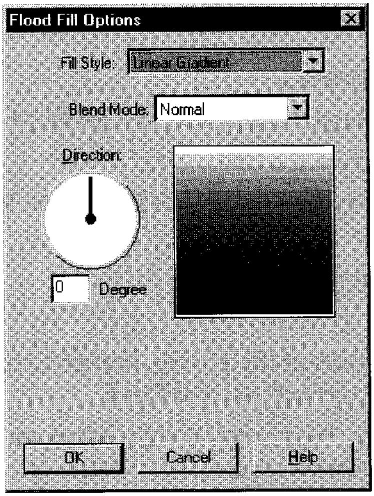
11 Set the Fill Style to Linear Gradient.

12 Set the Blend Mode to Normal.

13 Drag the Direction bar to 0°.

14 Click OK.

15 Click in the new file window to fill the background with the linear gradient



Fill Style: Linear Gradient

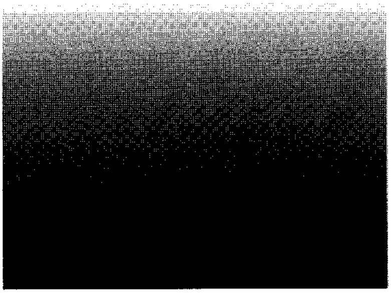
Blend Mode: Normal

Direction:

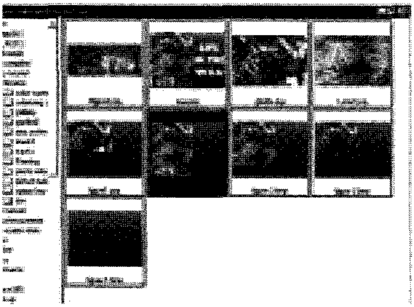
0 Degree

Your image should look similar to the following figure.

Gradient Background



Paint Shop Pro Browser



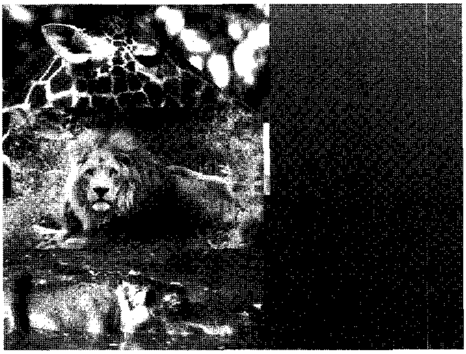
The Paint Shop Pro Browser lets you view images without opening them.

To use the Browser:

1. Place the Paint Shop Pro CD in your CD-ROM.
2. Choose Browse from the File menu.
3. Using the directory tree on the left side of the Browser, select the CD-ROM drive.
4. Click the Tutorial folder.
5. Select Section 8.
6. Click the thumbnails of the giraffe, lion and hippo one at a time and drag them into the image with the gradient.

   When you do this, the animal images are automatically pasted into the gradient image as new layers.
7. Using the move tool, select the animal images in each layer and stack them on the left as shown in the following figure.

Figure 6.PSP



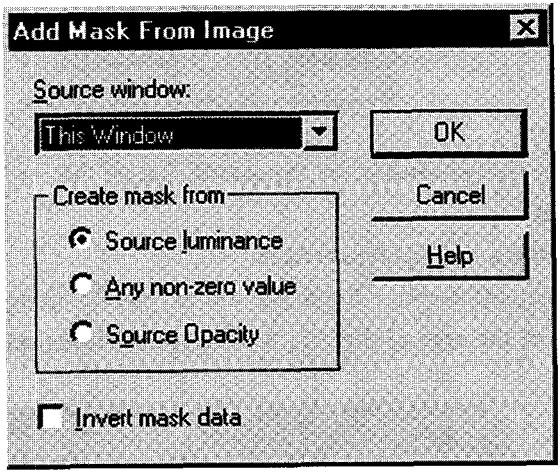
STEP 2 CREATING THE LAYER MASKS

Masks allow you to control the opacity of an image. By editing the mask with t Airbrush, you can fade areas in and out of an image.

To create a mask in each layer:

1. On the Layer palette, click the giraffe layer to make it the current layer.
2. In the Masks menu, choose New, and then choose From Image.
3. In the Add Mask From Image dialog box, select Source luminance.
4. Click OK.
5. Repeat these steps for the lion and the hippo layers.

Add Mask from Image Dialog Box



Add Mask From Image

Source window: This Window

Create mask from

● Source luminance

○ Any non-zero value

○ Source Opacity

☐ Invert mask data

6. In the Masks menu choose View Mask.

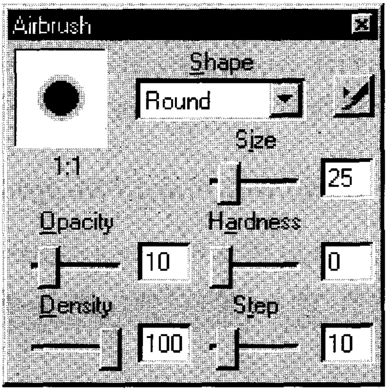
   The masked areas are displayed with a red overlay.

STEP 3 EDIT THE MASKS

Now that you have created masks for each layer, you can edit them to show or hide parts of your images. One way to do this is to use the Airbrush.

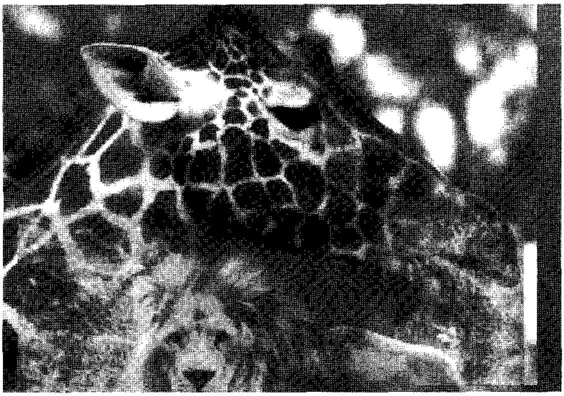
To paint out the overlapping areas:

1 In the Masks menu, click View Masks to turn off the View Mask function.
2 Select the Airbrush from the Tool palette.
3 In the View menu, choose Toolbars, and select the Control Palette checkbox.
4 Select the Brush Tip tab on the Control palette to set the options.
5 Set the Airbrush preferences to the following:



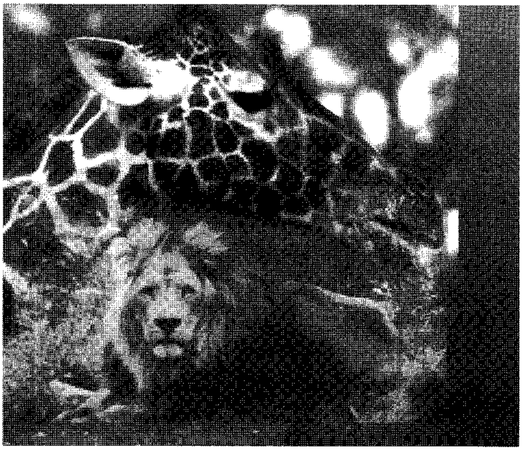
Shape: Round
Size: 25
Opacity: 10
Hardness: 0
Density: 100
Step: 10

6 Click the Foreground color panel and change the foreground color to white.
7 Click OK.
8 In the Masks menu, choose Edit.
9 Select white to remove the mask and expose the image.
10 Paint over the area of the giraffe with the Airbrush as in the following figure.



11 Click the Background color panel and change the background color to black.

12 Paint out the areas of the giraffe image that are overlapping the lion image a shown in the following image.



13 Edit the other two images the same way by selecting Edit from the Mask menu, painting in the areas with white and painting them out with black.

Remember, if you don't like your result you can always use the Undo command to undo your last several stages of the process.

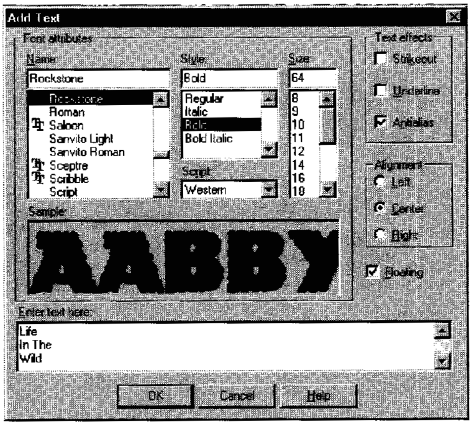
TEP 4 ADD TEXT

The Poster is almost finished. All it needs now is some text for a title.

To add text to the image:

1. In the Layers menu, choose New.
2. Call the layer "Text".
3. Select white for the Foreground color.
4. Select the Text tool from the Tool palette.
5. Click in the gradient area on the right side of the poster.
6. In the Add Text dialog box, type the text "Life In The Wild" in 64 point, Rockstone, bold, and centered, as in the following dialog box.

Add Text Dialog Box



Add Text

Font attributes

Name: Rockstone

Style: Bold

Size: 64

Script: Western

☐ Strikeout

☐ Underline

☑ Antialias

Alignment: ○ Left ● Center ○ Right

☑ Floating

Enter text here:

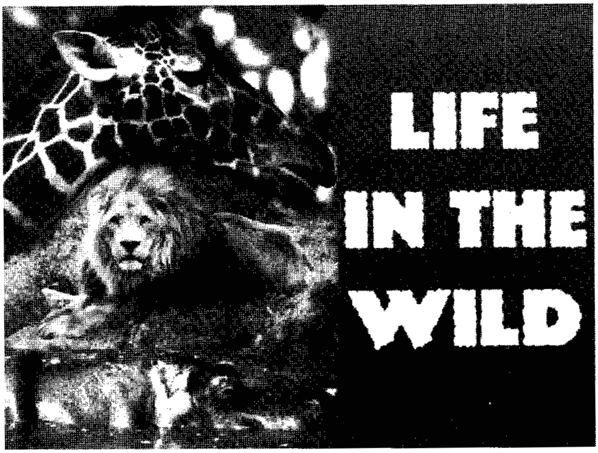
Life
In The
Wild

Rockstone
Roman
Saloon
Sanvito Light
Sanvito Roman
Sceptre
Scribble
Script
Regular
Italic
Bold
Bold Italic
8
9
10
11
12
14
16
18
Sample
AABBY
OK
Cancel
Help

7 If you are missing Rockstone from your type list, choose 52 point Arial Bold.

8 Drag the text to the center of the gradient area.

Zoo.PSP


LIFE
IN THE
WILD

In this lesson we:

- Created a gradient background.
- Used the Browser to add images into the gradient background as new layers
- Created a mask for each layer.
- Edited the masks with the Airbrush tool to blend the images together.
- Added a text to create the title.

If you would like more information on Masks, refer to Chapter 10, "Using Masks."

APPENDIX

File Formats

Paint Shop Pro directly supports 46 different file formats:

- 34 raster image formats
- 12 meta and vector image formats

Paint Shop Pro can read other file formats if the appropriate external import filters are installed on your system. See "Aldus-Compatible Image Import Filters" in Chapter 12.

RASTER IMAGE FORMATS

A raster, or bitmap, format breaks an image into a grid of equally-sized pieces, called *pixels*, and records color information for each pixel. The number of colors that the file can contain is determined by the bits-per-pixel: the more information that is recorded for each pixel, the more shades and hues that the file can contain

Most raster formats support more than one level of bits-per-pixel, and therefore more than one level of color. The following table lists all of the bits-per-pixel ratios in the raster formats that Paint Shop Pro supports, and shows the corresponding maximum number of colors.

Bits-Per-Pixel and Color Depth

Bits-Per-Pixel	Maximum Number of Colors
1	2
4	16
8	256
16	32,768 or 65,536 (depends on format)
24	16,777,216
32	16,777,216

Most raster formats record color information on pixel-by-pixel basis, but some formats use *color planes*. Each color plane contains all of the pixel information for a single color. Color planes are also called *color channels*. Formats that use color planes are called *planar* formats.

The bits-per-pixel are determined by the bits-per-plane times the number of planes. If the resulting number is not a power of two (expressible as 2^x, where x i an integer), then the bits-per-pixel are "promoted" to the next- highest power of two. For example, if there are two bits-per-plane and three planes, the bits-per-pixel are promoted to eight: $2 \times 3 = 6$, and $2^2 < 6 < 2^3$.

The following table lists the raster image formats that are supported by Paint Shop Pro, the type of support that is provided (read, write, or both), and the format's bits-per-pixel levels.

Raster Image Formats

📂 = Paint Shop Pro can open files of this specification 💾 = Paint Shop Pro can save files to this specification

Format	Sub-Format / Description	Source / Standard	Bits-Per-Pixel and Color Type						
			1	4	8 Grey	8 Color	16	24	32
BMP	RGB encoded	OS/2	📂💾	📂💾		📂💾		📂💾	
BMP	RGB encoded	Microsoft Windows	📂💾	📂💾		📂💾		📂💾	
BMP	RLE encoded	Microsoft Windows		📂💾		📂💾			
CLP	Bitmap	Windows Clipboard	📂	📂		📂		📂	
CLP	Device Independent Bitmap	Windows Clipboard	📂💾	📂💾		📂💾		📂💾	
CT	Continuous Tone CMYK	SciTex						📂💾	
CT	Continuous Tone CMY	SciTex						📂💾	
CUT		Dr. Halo				📂💾			
DCX	Mulitpage Paintbrush	Zsoft Paintbrush	📂						
DIB	RGB encoded	OS/2	📂💾	📂💾		📂💾		📂💾	
DIB	RGB encoded	Microsoft Windows	📂💾	📂💾		📂💾		📂💾	
DIB	RLE encoded	Microsoft Windows		📂💾		📂💾			
EPS	Image only	Adobe	💾	💾		💾		💾	
FPX	Compressed	Kodak FlashPix			📂💾			📂💾	
FPX	Uncompressed	Kodak FlashPix			📂💾			📂💾	
GIF	Ver. 87a (interlaced)	CompuServe	📂💾	📂💾		📂💾			
GIF	Ver. 87a (non-interlaced)	CompuServe	📂💾	📂💾		📂💾			
GIF	Ver. 89a (interlaced)	CompuServe	📂💾	📂💾		📂💾			
GIF	Ver. 89a (non-interlaced)	CompuServe	📂💾	📂💾		📂💾			
IFF	Compressed	Electronic Arts	📂💾	📂💾		📂💾		📂💾	
IFF	Uncompressed	Electronic Arts	📂💾	📂💾		📂💾		📂💾	
IMG	Old Style	GEM Paint	📂💾	📂		📂💾			
IMG	New Style	GEM Paint	📂	📂		📂			
JIF	Huffman compressed	Joint Photo. Expert Group			📂💾			📂💾	
JPG	Huffman compressed	Joint Photo. Expert Group			📂💾			📂💾	
JPG	Progressive	Joint Photo. Expert Group			📂💾			📂💾	
KDC		Kodak Digital Camera						📂	
LBM	Compressed	Deluxe Paint	📂💾	📂💾		📂💾			

aster Image Formats

🗁 = Paint Shop Pro can open files of this specification 🖫 = Paint Shop Pro can save files to this specification

ormat	Sub-Format / Description	Source / Standard	Bits-Per-Pixel and Color Type						
			1	4	8 Grey	8 Color	16	24	32
LBM	Uncompressed	Deluxe Paint	🗁🖫	🗁🖫		🗁🖫			
MAC	With header	MacPaint	🗁🖫						
MAC	Without header	MacPaint	🗁🖫						
MSP	New version	Microsoft Paint	🗁🖫						
MSP	Old version	Microsoft Paint	🗁						
PBM	Portable Bitmap	UNIX	🗁🖫						
PCD		Kodak Photo CD						🗁	
PCT	Macintosh PICT format	Apple	🗁🖫	🗁🖫		🗁🖫	🗁	🗁🖫	🗁
PCX	Version 0	ZSoft Paintbrush	🗁🖫						
PCX	Ver. 2 (with palette info.)	ZSoft Paintbrush	🗁🖫	🗁🖫					
PCX	Ver. 3 (without palette info.)	ZSoft Paintbrush	🗁	🗁					
PCX	Version 5	ZSoft Paintbrush	🗁🖫	🗁🖫		🗁🖫		🗁🖫	
PGM	Portable Graymap ASCII	UNIX			🗁🖫				
PGM	Portable Graymap Binary	UNIX			🗁🖫				
PIC		Pictor / PC Paint	🗁🖫	🗁🖫		🗁🖫			
PNG	Portable Network Graphics Interlaced		🗁🖫	🗁🖫		🗁🖫	🗁	🗁🖫	🗁
PNG	Portable Network Graphics Noninterlaced		🗁🖫	🗁🖫		🗁🖫	🗁	🗁🖫	🗁
PPM	Portable Pixelmap	UNIX						🗁🖫	
PSD	RGB or indexed	Photoshop	🗁🖫			🗁🖫		🗁🖫	
PSP	Run Length Encoding	Jasc Paint Shop Pro	🗁🖫	🗁🖫	🗁🖫	🗁🖫		🗁🖫	
PSP	LZ77 Compression	Jasc Paint Shop Pro	🗁🖫	🗁🖫	🗁🖫	🗁🖫		🗁🖫	
PSP	Uncompressed	Jasc Paint Shop Pro	🗁🖫	🗁🖫	🗁🖫	🗁🖫		🗁🖫	
RAS	Type 1 (Modern Style)	Sun Microsystems	🗁🖫			🗁🖫		🗁🖫	🗁
RAW	Un-encoded pixel data				🗁🖫			🗁🖫	
RLE	CompuServe	CompuServe	🗁🖫						
RLE	Windows	Microsoft Windows		🗁🖫		🗁🖫			
SCT	Continuous Tone CMYK	SciTex						🗁🖫	
SCT	Continuous Tone CMY	SciTex						🗁🖫	
TGA	No compression	Truevision				🗁🖫	🗁	🗁🖫	🗁
TGA	Compressed	Truevision				🗁🖫	🗁	🗁🖫	🗁
TIF TIFF	Huffman compressed/ Tagged Image File Format	Aldus Corporation	🗁🖫						
TIF TIFF	No compression/ Tagged Image File Format	Aldus Corporation	🗁🖫	🗁🖫	🗁🖫	🗁🖫		🗁🖫	
TIF TIFF	No compression CMYK/ Tagged Image File Format	Aldus Corporation						🗁🖫	
TIF TIFF	Pack bits compressed/ Tagged Image File Format	Aldus Corporation	🗁🖫	🗁🖫	🗁🖫	🗁🖫		🗁🖫	

Raster Image Formats

📂 = Paint Shop Pro can open files of this specification 💾 = Paint Shop Pro can save files to this specification

Format	Sub-Format / Description	Source / Standard	Bits-Per-Pixel and Color Type						
			1	4	8 Grey	8 Color	16	24	32
TIF TIFF	Pack bits compressed CMYK/ Tagged Image File Format	Aldus Corporation						📂💾	
TIF TIFF	LZW compressed/ Tagged Image File Format	Aldus Corporation	📂💾	📂💾	📂💾	📂💾		📂💾	
TIF TIFF	LZW compressed CMYK/ Tagged Image File Format	Aldus Corporation						📂💾	
TIF TIFF	Fax Group 3 compressed/ Tagged Image File Format	Aldus Corporation	📂💾						
TIF TIFF	Fax Group 4 compressed/ Tagged Image File Format	Aldus Corporation	📂						
WPG	Version 5.0	WordPerfect	📂💾	📂💾	📂💾	📂💾			
WPG	Version 5.1	WordPerfect	📂💾	📂💾	📂💾	📂💾			
WPG	Version 6.0	WordPerfect	📂💾	📂💾	📂💾	📂💾		📂💾	

META AND VECTOR IMAGE FORMATS

Meta and vector image formats can both contain vector information. Vector information is a collection of geometric shapes that combine to make an image. The information is recorded as mathematical formulas. Vector data cannot reproduce photo-realistic images, but for other types of images it has two advantages over raster data: it is scaleable without distortion (the "jaggies" that come with re-sizing a bitmap), and it produces smaller files.

In the strictest definition, a vector format can only contain vector information. In common practice, many formats that are considered to be vector allow the user include non-vector data, such as raster images or text.

Meta formats explicitly allow more than just vector data. For example, a typical Windows metafile might contain a bitmap, vector information, and text, with th bitmap constituting the majority of the image, and the vector and text data providing annotation.

The following table lists the meta and vector formats that are supported by Pain Shop Pro.

Note Paint Shop Pro can read vector data, but it *cannot* write vector data. When you view vector image from Paint Shop Pro, what you are seeing is a raster image based on the vector data. Paint Shop Pro imports the vector image and converts it to an intern raster format. Paint Shop Pro can write to the Windows metafile format, but the resulting files contain raster data only.

ta and Vector Image Formats

🗁 = Paint Shop Pro can open files of this format
🖫 = Paint Shop Pro can save files to this format

Format	Source / Standard	Open / Save
CDR	CorelDRAW!	🗁
CGM	Computer Graphics Metafile	🗁
CMX	Corel Clipart	🗁
DRW	Micrografx Draw	🗁
DXF	Autodesk	🗁
EMF	Windows Enhanced Metafile	🗁🖫*
GEM	Ventura / GEM	🗁
HGL	Hewlett-Packard Graphics Language	🗁
PCT	Apple	🗁🖫*
PIC	Lotus Development Corp.	🗁
WMF	Microsoft Windows Metafile	🗁🖫*
WPG	WordPerfect	🗁🖫*

* When you save data in these formats, the file contains raster data only.

ther Formats: External Import Filters

In addition to the file formats that it supports directly (see sections above), Paint Shop Pro can also read other image file formats if the appropriate external impor filters are installed on your system. (See Chapter 12.) Most major software applications, such as Microsoft Word®, install external import filters. In Paint Shop Pro's dialog boxes, the file types that are supported via external import filters have "EXT:" after the file extension.

ormat Type List

The Open, Save, and Save As dialog boxes list the file formats under the company that developed or owns them. For example, to select the ".bmp" forma scroll to "Windows or O/S 2 bitmap."

The formats are listed as follows:

Raster Image Formats

FORMAT	LISTED AS
BMP	Windows or OS/2 Bitmap
CLP	Windows Clipboard

FORMAT	LISTED AS
CUT	Dr. Halo
DCX	Zsoft Multipage Paintbrush
DIB	Windows or OS/2 DIB
EPS	Encapsulated PostScript
FPX	Kodak FlashPix
GIF	CompuServe Graphics Interchange
IFF	Amiga
IMG	GEM Paint
JPG	JPEG - JFIF Compliant
KDC	Kodak Digital Camera File
LBM	Deluxe Paint
MAC	MacPaint
MSP	Microsoft Paint
PBM	Portable Bitmap
PCD	Kodak Photo CD
PCT	Macintosh PICT
PCX	Zsoft Paintbrush
PGM	Portable Greymap
PIC	PC Paint
PNG	Portable Network Graphics
PPM	Portable Pixelmap
PSD	Photoshop
PSP	Paint Shop Pro Image
RAS	Sun Raster Image
RAW	Raw File Format
RLE	Windows or CompuServe RLE
SCT	SciTex Continuous Tone
TGA	Truevision Targa
TIF/TIFF	Tagged Image File Format
WPG	WordPerfect Bitmap

Meta and Vector Image Formats

FORMAT	LISTED AS
CDR	CorelDraw Drawing
CGM	Computer Graphics Meta File
CMX	Corel Clipart
DRW	Micrografx Draw
DXF	Autodesk Drawing Interchange
EMF	Windows Enhanced Metafile
GEM	Ventura/GEM Drawing
HGL	HP Graphics Language

FORMAT	LISTED AS
PCT	Macintosh PICT
PIC	Lotus PIC
WMF	Windows Metafile
WPG	WordPerfect Vector

Format Save Options

When saving files in the following formats, the Options button will be accessibl
Click it to open the Save Options dialog box and select the options.

You can set format options for the following image formats:

.bmp .dib .eps .fpx
.gif .iff .jpg .lbm
.mac .pbm .pcx .pgm
.png .ppm .psp .raw
.rle .sct .tga .tif
.wpg

PAINT SHOP PRO FILE FORMAT

The PSP file format was created because none of the existing file formats was flexible enough to handle all the features of Paint Shop Pro 5.

The PSP format is completely lossless—the image is restored to exactly the sam
state as when it was saved. This is true for all the compression methods. The PSP format is also completely extendable - the developers can add new compression methods, additional image information, creator information, color management information, whatever the needs of the future users may be.

What is saved into the PSP file format:

1. All layer information (image, opacity, blend modes, groups, masks, etc.)
2. All selection information
3. All Alpha channel information
4. All creator information
5. Palette transparency information

What is not saved into the PSP format:

1 User viewing options (other than layer visible)

2 Undo information

Currently available compressions types:

1 None: By far the fastest method of saving a PSP file, though his method creates the largest files.

2 RLE: Compresses repetitive information. RLE gains about 25% compression rate with layered images and is only slightly slower than the "no compression" method.

3 LZ77: Achieves best compression rates. Some layered images will compress up to 75%. It is much slower than RLE compression, but it eliminates the need to ZIP or otherwise recompress files for transportation.

APPENDIX

Computers and Color

COLOR DEFINITION METHODS

There are several methods for defining the projected colors that appear on a computer monitor. The two most common methods (which are also the method used by Paint Shop Pro's functions and dialog boxes) are red, green, and blue (see below) and hue, saturation, and lightness (see the following page). The following table outlines the Color dialog box RGB and HSL settings for the standard white light color spectrum.

Color Dialog Box Settings for White Light Color Spectrum

Spectrum Color	RGB Settings			HSL Settings		
	Red	*Green*	*Blue*	*Hue*	*Sat*	*Light*
Red	255	0	0	0	240	120
Orange	255	128	0	20	240	120
Yellow	255	255	0	40	240	120
Green	0	255	0	80	240	120
Azure (Light Blue)	0	255	255	120	240	120
Indigo (Dark Blue)	0	0	255	160	240	120
Violet	255	0	255	200	240	120

Red, Green, and Blue (RGB)

The most popular method for defining a projected color is as a combination of red, green, and blue. For example, pure red is defined by red = 100%, green = 0 and blue = 0%. Pure black has red, green, and blue values of 0%, and pure whit has red, green, and blue values of 100%.

Hue, Saturation, and Lightness (HSL)

A projected color can be defined by the three components of hue, saturation, an lightness:

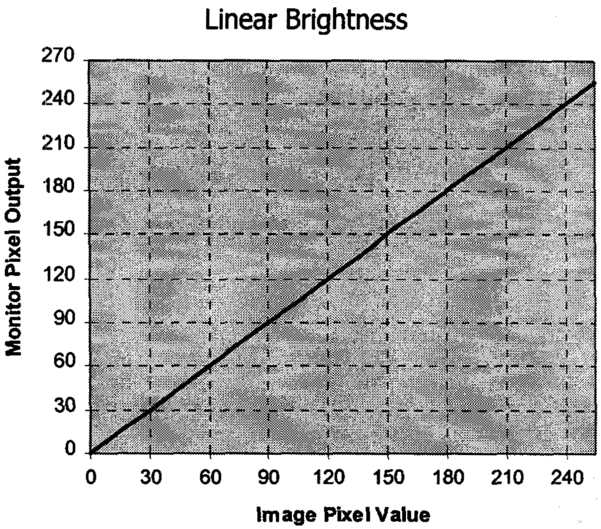
- *Hue* describes the color's tint. It is measured on a circular spectrum running from red to green to blue and returning to red.
- *Saturation* describes the hue's purity. A color with a saturation of 100% is bright and vivid, and a color with a saturation of 0% is a shade of grey.
- *Lightness* describes the color's brightness. A color with lightness of 100% is always pure white, and a color with luminance of 0% is always pure black.

AMMA CORRECTION

An image is stored in computer memory as a series of numbers. Depending on the image's format, a pixel's values can be described in a variety of ways. All of these formats have at least one thing in common: a higher number means a brighter color value. This rule has two corollaries: (1) the highest combination of values possible for a pixel produces pure white; and (2) the lowest combination of values possible for a pixel produces pure black.

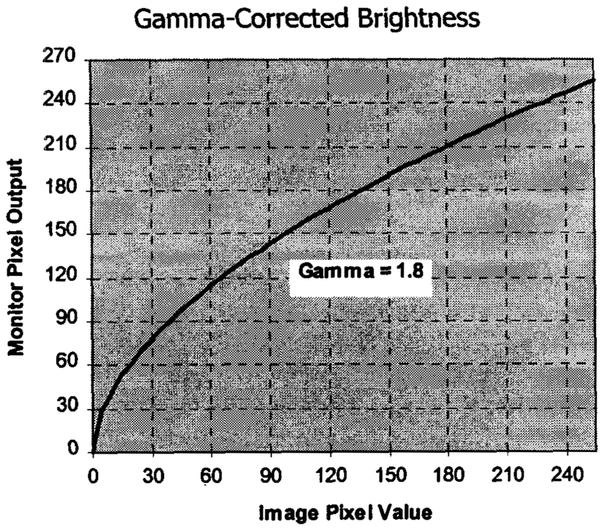
It would follow logically that a value half-way up any scale would have a lightness exactly between black and white. This assumes that our hypothetical scale would allow an integer value exactly in the middle, which in reality it would not: image formats are based on powers of two, so integer midpoints are not possible.

To get over this hurdle, let's consider an approximate midpoint, and to base it in reality, let's assume that the image is in a 256 color grey scale format. A graph of a monitor's pixel output over the image's potential pixel values would look like the diagram entitled "Linear Brightness" on the following page. Our approximate midpoint – say 120 – would produce an identical brightness on the monitor.



A computer monitor displays colors by exciting phosphors on the screen. Unfortunately, phosphors do not excite linearly. For example, if a computer rea a lightness value from a photographic image and sends it directly to the monito the displayed color will be dimmer than in the original photograph.

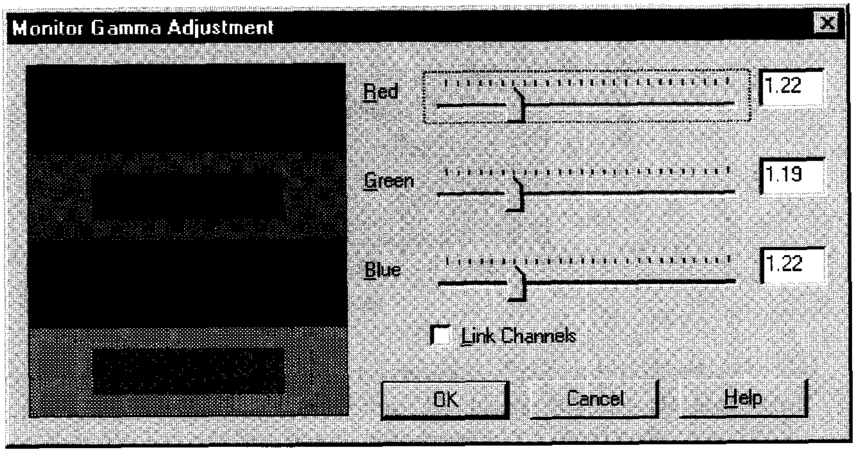
As you may have already guessed, this is where gamma correction comes in: a gamma correction value adjusts for the non-linearity of phosphor excitation. Th diagram entitled "Gamma-Corrected Brightness" below provides an example o how gamma correction can alter the color values sent to a computer monitor. In this case, our approximate midpoint of 120 produces a monitor value of 168.



djusting Your Monitor's Gamma Level

You can adjust your monitor's gamma level by choosing Monitor Gamma from Preferences in the File menu.

Monitor Gamma Adjustment


Monitor Gamma Adjustment

Red 1.22

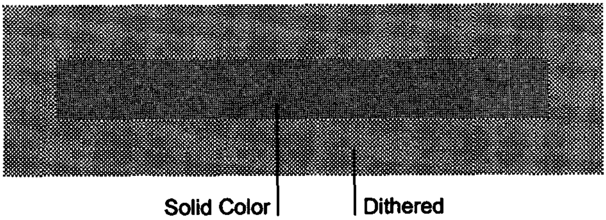
Green 1.19

Blue 1.22

☐ Link Channels

The Monitor Gamma Adjustment dialog box includes four sections, one each for red, green, blue, and grey. On the left side of the dialog box, a sample of each section is displayed with an outer area and a center area. The outer area is a dithered pattern of pixels with lightness values of 0 and 255, and the center area contains pixels with a lightness value of 128.

Paired Areas Before Gamma Correction



On the right side of the dialog box, slider controls for red, green, and blue are provided to adjust monitor gamma. Use the slider controls to adjust the image's gamma level so that these two areas are of equal brightness. With the Link Channels check box selected, the three sliders move together as you drag any individual slider. With the check box unchecked, you can adjust colors individually by dragging the applicable slider. The values that synchronize brightness represent the correct gamma level of your monitor.

RROR DIFFUSION DITHERING

Dithering is a technique for simulating colors that are missing from an image file's palette. The missing colors are simulated by intermingling pixels of two or more palette colors. If the unavailable color differs too greatly from the colors in the image's palette, dithering will produce a grainy or mottled appearance.

Error diffusion dithering is a popular dithering method. The "error" in the title refers to the cumulative difference between the actual values of pixels in the image and their "true" values if they were all set to their correct colors. By reducing this error, error diffusion dithering produces image quality that is superior to that achieved by non-error adjusted dithering.

The process starts at the first pixel in the image (the upper left corner). The algorithm finds the color in the palette that is nearest to the color of the pixel. It then compares the two colors' numerical values, saves the difference as the initia error, and applies the color from the palette to the pixel.

The process then proceeds to the second pixel. It finds this pixel's nearest color, and calculates the sum of the color and the error value from the last pixel. It sets the pixel to the color that is nearest to this sum. Any difference between the applied color and the sum becomes the new error value.

When the process reaches the third pixel, it repeats the procedure that was used to set the color for the second pixel. The algorithm cycles through the image's remaining pixels in the same manner. The error value is abandoned at the end o each row.

educe Color Bleeding Option

As you may have suspected, error diffusion dithering causes colors to bleed fron left to right. This is because the algorithm, and therefore the error value, travels in this direction. Color bleed is most noticeable in images with hard vertical edges, because the edges are softened by the traveling color.

Paint Shop Pro functions that use error diffusion dithering include a Reduce Color Bleeding option. This option lessens the left-to-right color bleed by applying a fractional coefficient to the error value. By reducing the error value, less color information is carried from one pixel to the next.

APPENDIX

Jasc Palette File Forma

Note The Jasc palette file format is not the same as the Microsoft palette format. Paint Shop Pro also reads and writes the Microsoft format. For more information, see “Saving an Image Palette” in Chapter 6.

aint Shop Pro can save 16 and 256 color palette files in the Jasc palette file format (extension .PAL”) . For an example, see the following page. The file type was created as a text file so that ou can edit or create palettes with a text editor, such as Notepad. The file structure is as follows

Item	Setting
Header	JASC-PAL
Version	0100
Number of Colors	16 or 256
Palette Data	Made up of Red, Green and Blue color components. Color components are values from 0 to 255. RGB values must be separated by one space. Each RGB series must be on a separate line.

EDITING A PALETTE FILE AS TEXT

You can edit a “.PAL” file using a text editor, such as Notepad.

AMPLE

following shows Window’s default colors in the PAL file format:

```
JASC-PAL
0100
16
0 0 0
128 0 0
0 128 0
128 128 0
0 0 128
128 0 128
0 128 128
192 192 192
128 128 128
255 0 0
0 255 0
255 255 0
0 0 255
255 0 255
0 255 255
255 255 255
```

APPENDIX

Troubleshootin

This section contains answers to the most common technical support questions
Refer to the README.TXT file in your Paint Shop Pro folder to see if there are any
additional questions and answers that were not available when this manual wa
published.

COLOR PROBLEMS

NOTE: If your video card supports higher color resolutions, installing a video
driver that supports more colors should improve your image display quality. T
determine your current display resolution, choose About Paint Shop Pro from
Help menu, and then click the System Info button at the bottom of the screen. I
the System Information list, scroll to the Video Driver Information section. Loo
at the line marked “Number of Colors.” It shows the number of colors that you
display supports. For help changing your video driver, consult the
documentation that came with your video card.

Image colors are wrong.

When Windows is running a 256 color display driver, it reserves 20 colors for i
own use. This lowers an image’s palette to 236 colors (256 - 20 = 236) plus the 2
fixed Windows colors. If the color in the image is not in the palette, it is replace
by the nearest color that is.

Image is mottled or grainy.

If your images are mottled or grainy, your video card or driver probably does
support enough colors to show the image correctly. For help changing your vi
driver, consult the documentation that came with the video card.

The graininess is caused by dithering, a technique for simulating colors that ar
missing from an image file’s palette. Paint Shop Pro maintains the original, un-

dithered image in memory. If you edit the image, the change is applied to the original and a new dithered image is created. This allows you to work with images that are beyond the limits of your video system.

allpaper colors change as different images are splayed.

When Windows is running a 256 color display driver, it reserves 20 colors for its own use. This lowers an image's palette to 236 colors (256 - 20 = 236) that Paint Shop Pro can optimize to display an image. Paint Shop Pro alters the common palette that is being used by the wallpaper, and for that matter, the entire screen. Once Paint Shop Pro or the offending image is closed, the wallpaper's colors will return to normal.

o preferences are available for setting transparent lors.

Paint Shop Pro 5 includes a new way to create a transparent background. Instead of assigning preferences for certain file types (i.e., GIF and PNG), you assign a transparent value to a color in the image palette. For more information, see Chapter 6, "Working With Color."

EMORY

iting image causes memory error message.

Depending on its size and resolution, an image may require a substantial amount of memory to be displayed and even more memory to be edited. The following example shows how the memory requirements of a single layer image escalate as its color depth increases.

Height	*Width*	*Bits/Pixel*	*Display (KB)*	*Max Edit (KB)*
800	600	1	59	176
800	600	8	469	1,406
800	600	24	1,406	4,219

Adding layers also increases the image's memory requirements. Here's what happens when layers are added to the 24-bit image:

Layers	*Display*	*Max Edit*
2 layers	3.2 MB	9.6 MB
3 layers	5 MB	15 MB

Remember that editing an image may require up to three times the amount of memory required to display the image.

OPERATIONS

Some functions are unavailable.

Functions can be unavailable for two reasons:

Insufficient Color Depth

Some functions create new pixel values that may not exist in the original image Only 24-bits-per-pixel images and 8-bits-per-pixel grey scale images have the required internal structure to hold any and all of these new pixel values.

No Selection in the Active Image

Some functions require a selection. If the active image does not contain a selection, the function will not be available.

Program becomes unstable when attempting to print images.

You will be unable to print an image if your Windows temporary folder does n have enough room to hold the image file. Something will crash: it could be Windows or it could be Paint Shop Pro.

We at Jasc Software firmly believe that it is a bad idea to use a RAM drive as your Windows temporary folder. The allocated memory goes to waste, and it constrains the size of your temporary folder.

For more help, contact your hardware support provider.

Can't use scanner: Acquire and Select Source are unavailable.

If the Acquire and Select Source commands on the File menu are unavailable, Paint Shop Pro could not find a copy of TWAIN_32.DLL on your system. For more information on TWAIN-compliant devices, refer to Chapter 2, "Working with Image Files," and the documentation that came with your device.

ainting produces no apparent results.

Layers obscured

Make sure the current layer is not obscured by another layer by clicking the Layers menu. The current layer is indicated by a check mark.

Pressure-sensitive input device not operating

If you are using a pressure-sensitive tablet, make sure it is operating properly. Consult the user's manual for your tablet for more information.

ertain file types launch Paint Shop Pro, while others o not.

If a file's extension is associated with Paint Shop Pro, you can open the file by double-clicking the filename in Windows Explorer. If Paint Shop Pro is not running, double-clicking the filename will also start, or launch, the program. Associated file types use the Paint Shop Pro image file icon. To select file types to be associated with Paint Shop Pro, set the File Associations preferences, as discussed in Chapter 12, "Configuring Paint Shop Pro." If you are not sure which file types to associate with Paint Shop Pro, you can accept the default settings of the File Associations dialog box.

asks are not visible.

If you create a mask and it is not visible on the screen, open the Masks menu and make sure View Mask is checked. If it is not checked, click it to turn View Mask on. To turn off View Mask, click it again to remove the check mark.

ask cannot be edited.

If you are trying to edit a mask and do not see the expected results, you may be editing the image instead of the mask. Open the Masks menu, make sure the Edit command is checked, and then try making your changes.

NOTE: You must choose Edit from the Masks menu before you can edit the mask. There is a check mark next to the Edit command whenever this function is active.

APPENDIX

Paint Shop Pro Shortcut

Command	Keyboard Shortcut
File Menu	
New	Ctrl + N
Open	Ctrl + O
Browse	Ctrl + B
Save	Ctrl + S
Save As	F12
Save Copy As	Ctrl + F12
Delete	Ctrl + Del
Print	Ctrl + P
Edit Menu	
Undo	Ctrl + Z
Undo History	Shift + Ctrl + Z
Cut	Ctrl + X
Copy	Ctrl + C
Copy Merged	Shift + Ctrl + C
Paste	
As New Image	Ctrl + V
As New Layer	Ctrl + L
As New Selection	Ctrl + E
As Transparent Selection	Shift + Ctrl + E
Into Selection	Shift + Ctrl + L
Clear	Del
View Menu	
Full Screen Edit	Shift + A
Full Screen Preview	Shift + Ctrl + A
Normal Viewing	Ctrl + Alt + N
Image Information	Shift + I
Grid	Ctrl + Alt + G

Command	Keyboard Shortcut
Image Menu	
Flip	Ctrl + I
Mirror	Ctrl + M
Rotate	Ctrl + R
Crop to Selection	Shift + R
Resize	Shift + S
Color Menu	
Brightness/Contrast	Shift + B
Gamma Correction	Shift + G
Highlight/Midtone/Shadow	Shift + M
Hue/Saturation/Luminance	Shift + H
Red/Green/Blue	Shift + U
Colorize	Shift + L
Posterize	Shift + Z
Edit Palette	Shift + P
Load Palette	Shift + O
Layer Menu	
Select Current Layer	Ctrl + (layer number)
Selection Menu	
Select All	Ctrl + A
Select None	Ctrl + D
From Mask	Shift + Ctrl + S
Hide Selection Marquee	Shift + Ctrl + M
Invert	Shift + Ctrl + I
Promote Layer	Shift + Ctrl + P
Float	Ctrl + F
Defloat	Shift + Ctrl + F
Mask Menu	
Hide All	Shift + Y
Invert	Shift + K
Edit	Ctrl + K
View Mask	Ctrl + Alt + V
Capture Menu	
Start	Shift + C
Window Menu	
New Window	Shift + W
Duplicate	Shift + D
Fit To Window	Ctrl + W

Command	Keyboard Shortcut

Browser Menus

File Menu

New Folder	Ctrl + B
Update Thumbnails	F5

View Menu

Refresh Tree	Ctrl + F5

Find Menu

File Name	Alt + F3

ImageFile Menu

Delete	Ctrl + Del

Other

Center Floating Tool Palettes	Shift + Ctrl + T
Hide/Restore all floating palettes	Tab
Hide/Restore toolbar	T
Hide/Restore Histogram	H
Hide/Restore Layer palette	L
Hide/Restore Tool palette	P
Hide/Restore Control palette	O
Step through tools	Spacebar

APPENDIX

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