



**Paint Shop
User's Manual**

Version 1.50

by Robert Voit

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For further information, please contact:

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Graphics Technology Department
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Columbus, Ohio 43220
U. S. A.

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Not sure who if any one owns a trademark for this file format.

Note: this is the RLEs used by Windows, not the CompuServe RLE format.

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OVERVIEW

Over the last decade numerous painting programs and computer scanners have provided you, the user, the opportunity to acquire thousands of pictures to be used as you desire.

The format of the files that these pictures are saved in vary widely. There is no standard to these picture files. This results in your ability to acquire pictures for which you have no program that supports that particular file format.

Paint Shop was designed to help you make use of those files.

Paint Shop is a Windows Program. Its purpose is to allow you to display, print, alter and save pictures that use various picture file formats.

With the advent of the graphical user interface, you now have the ability to create high quality documents without the high priced desktop publishing programs. For example, you can use Paint Shop to open a PCX file, dither the picture to black and white, mark off the part of the picture you desire, copy that part to the clipboard, and paste it into Microsoft's Write. Use Write to put the text into your document, then print the document. You have just done desktop publishing with what was provided in Windows and Paint Shop.

Paint Shop is distributed as a shareware program. This gives you the opportunity to try Paint Shop for the 30 day free trial period. This method of distribution was selected to provide you with the opportunity to obtain a quality application at a price substantially less than comparable commercial applications. See the section entitled Licensing for information on obtaining a license number.

OPERATIONAL CONSIDERATIONS

Due to memory requirements for holding large pictures, Paint Shop will run the best in Windows 386 Enhanced mode.

Paint Shop can be run in Windows' Standard mode. Remember that large pictures take quite a bit of memory. If you do not have enough memory to complete an operation of Paint Shop, a message telling you this will appear. If Paint Shop can not recover your original picture when an out of memory error occurs then Paint Shop will reset. Paint Shop resets by clearing the present picture from memory and the client area. Just re-open the picture file to get the original picture back into Paint Shop.

Loading and Saving of GIF pictures and dithering of any picture is done in the background. This allows you to continue to work in Windows as Paint Shop is taking care of the processing of your picture.

Paint Shop does allow for multiple instances (more than one copy of Paint Shop may run at the same time).

Paint Shop has a built in Help system. All menu commands along with additional information may be obtained by selecting HELP - INDEX.

INSTALLATION

Paint Shop is made up of 3 files:

PS.WRI - The User's Manual.

PS.HLP - The On-Line Help file.

PS.EXE - Paint Shop program.

The only files that are required to run Paint Shop is PS.EXE and PS.HLP. Copy these two files to any directory that you desire. They must be in the same directory. Use your DOS reference manual for instructions on creating directories and copying files.

Once the files are where you want them, add Paint Shop to your Program Manager. Use your Windows manual for information on how to add an application to Program Manager.

You are now ready to run Paint Shop. Start Paint Shop the same way you would start any other Windows Program.

MENU ITEM - FILE

File - New:

New will clear the current picture from memory and the screen. This is useful if you need more memory for another application but do not want to shut down Paint Shop.

File - Open:

Open lets you open a picture file. Select the file format of the picture that you would like to view. See the section File Formats for more information on the various file formats supported. The different file formats that are supported are aligned along the right side of the file open dialog box.

Switch to the proper drive and directory by double clicking the drive or directory in the Directories list box.

Now select the file to open from the Files list box by double clicking on the file name. Paint Shop will now read the file and display the picture.

File - Save As:

Save As lets you save a file using a specified picture file format. Select the format that you would like to save the file as. See the section File Formats for more information on the various file formats supported. The name of the file will automatically be changed to provide for the proper file name extension. You may alter the file name if you desire. You may save the file to a different drive or directory by double clicking the desired drive or directory in the Directory list box. When you are ready, click on the OK button. Paint Shop will now save the file using the file name and file format that you have specified.

If the file name already exists in the current directory, Paint Shop will prompt you asking if you would like to overwrite the existing file. Select OK to overwrite the original file. Select Cancel to abort the file save operation.

File - Delete:

Delete will delete the file of the currently displayed picture. Before deleting the file you will be asked if you are sure that you want to delete the file.

File - Print:

Print allows you to print the current picture. Paint Shop uses the printer resolution that you have selected. If your picture is too big for the size of your paper the picture will be shrunk to the size required to fit the paper.

The speed of the print operation depends on the type of printer used, picture size, and the selected printer resolution. The larger the picture and the higher the resolution the longer it will take. Just one step down in printer resolution will change your print time dramatically.

File - Printer Setup:

Printer Setup will activate the printer's setup dialog box. You can use this option to change the printer's configuration. Most printer setup dialog boxes have their own help system. Use this help system to get additional information on the various options available in the setup dialog box.

File - Exit:

Exit will shut down Paint Shop.

MENU ITEM - EDIT

Edit - Copy:

Copy will copy the currently marked area to the clipboard. See Operations-Marking for information on how to mark an area of the picture. If there is no marked area, Paint Shop will copy the entire picture to the clipboard.

Edit - Paste:

Paste will paste the picture on the clipboard into Paint Shop. Once the picture is in Paint Shop, you can treat it as any other picture.

MENU ITEM - ALTER

Alter - Flip:

Flip will turn the picture upside down.

Alter - Mirror:

Mirror will create a mirror image of the picture.

Alter - Rotate Right:

Rotate Right will rotate the picture 90 degrees to the right.

Alter - Rotate Left:

Rotate Left will rotate the picture 90 degrees to the left.

Alter - Stretch/Shrink:

Stretch/Shrink can be used to change the size of the picture. When this option is selected a dialog box will allow you to change the dimensions of the picture. You may select one of the standard VGA sizes, or Custom Size. If you select Custom Size, enter the new width and height in the edit boxes. After making your selection for the new width and height click the OK button. If you do not want to change the size of the picture, select Cancel.

Alter - Trim:

Trim will reduce the picture to include only the area that is marked. See Operations-Marking for information on how to mark an area of the picture.

Alter - Dither Color:

Dither Color will dither the picture from 256 colors down to 16 colors. The 16 colors that result will be the 16 default colors that Windows uses.

Alter - Dither Mono:

Dither Mono will dither the picture from 256 or 16 colors down to 2 colors. When you select Dither Mono a dialog box will appear allowing you to determine the way that the picture should be dithered. No single method for dithering will do a good job on all pictures. Thus Paint Shop gives you the options to have the picture dithered the way you would like it dithered. This allows for 24 different outcomes. The different possibilities are setup by the selections you make using the Dither-Mono dialog box. Your choices fall into 3 categories. You must select one choice from each of the 3 categories.

These categories are: Palette weight, Palette color and Dither type.

Palette weight -

You may select weighted or non-weighted. A weighted palette will set more of the original colors to black and white, instead of dithering out the color to appear as different levels of grey. You will find that edges are usually sharper using a weighted palette.

Palette color -

You may select Grey, Red, Green or Blue. When a picture is dithered, it is done relative to the grey values of the original palette. You may obtain better dithered pictures if the picture is dithered relative to one of the components of the original palette. In other words, only using one of the components from Red, Blue or Green. For example, a picture with a lot of flesh tones comes out better if you only use the red palette component. A picture that is mainly Green will look better if you use only the green palette component.

Dither type -

Paint Shop uses a technique called error diffusion to do the dithering. Within error diffusion there are 3 algorithms that are most popular. They are Floyd-Steinberg, Burkes and Stucki. They each give different results.

The best choice of each of the 3 categories is completely subjective. The best choice can usually be narrowed down by selecting a Weighted palette and using the Floyd-Steinberg Dither type. Then dither against Grey, Red, Blue and Green. This will tell you the best Palette Color with which to dither. After finding the best palette color then try a non-weighted palette. Since all the dither types will have about the same outcome for weighted and non-weighted palettes, you will now know the answer to Palette Weight and Palette Color. Next use your Palette Weight and Palette Color that you've found to be best and dither using the other 2 Dither Types.

The more you use the dithering option the better you get at knowing what will be the best selections without having to go through the above routine.

Alter - Greyscale:

Greyscale will change the picture's colors to the greyscale values of the original colors. The picture is still a colored picture. It will just be various shades of grey.

Alter - Invert:

Invert will invert the colors of a black and white picture. Black will become white and white will become black. Many pictures come with a black background. When printing these pictures the background will be printed. By using Invert the background would become white and the resulting picture would not have the background printed.

Alter - Prep for MAC:

Prep for MAC takes care of all the work necessary to prepare a picture for saving as a MAC file. MAC files should have a white background, Prep for MAC gives you the option to invert the picture colors during the prep operation.

The preparation process does four steps:

1. Reduces the picture so that neither the width or height exceed the maximum allowed by MAC pictures. If Paint Shop reduces the size of your picture, the aspect ratio will be maintained.
2. Dithers the picture, if necessary, to black and white. This step will use a weighted palette, grey color and Floyd-Steinberg dithering. If you wish different options for the dithering, then dither the picture with Alter-Dither-mono before using Prep for MAC.
3. Inverts the picture colors if you selected this option.
4. Pads any area outside of the picture with a white background to bring the picture to the proper size of a MAC picture.

MENU ITEM - VIEW**View - Full Screen:**

Full screen viewing will display your picture outside of a window. Press any key or mouse button to return to windowed operations.

MENU ITEM - CAPTURE

After selecting Capture-Area or Capture-Full Screen a dialog box will provide you with different options of what to do with Paint Shop. These options are; Hide Paint Shop, Make Paint Shop an icon, and Leave Paint Shop alone. Hide Paint Shop will make Paint Shop disappear from the screen during capturing. Make Paint Shop an icon will reduce Paint Shop to an icon during capturing. Leave Paint Shop alone will result in Paint Shop staying right where it is during capturing.

Capture - Area:

Area will allow you to capture a designated part of the screen. After making your selection on what to do with Paint Shop the cursor will turn into a "t". To select the area to be captured, move the cursor to the beginning point. Hold down the left mouse button. Move the cursor to the ending point. Release the left mouse button. During the selection of the area the area will be outlined and the size of the area will be displayed in the center of the area.

Capture - Full Screen:

Full Screen will capture the entire screen. After making your selection on what to do with Paint Shop, Paint Shop will capture the screen.

Capture Notes:

An individual window may be captured without having to use the Capture-Area option. Follow these steps to capture just one window.

1. Select the window you want to capture by making it the active application.
2. While holding down the "Alt" key press the "Print Screen" key.
3. Start Paint Shop, if it is not already running.
4. Select "Edit-Paste" from the Paint Shop menu.

Once you have captured all or part of the screen you can do anything with the picture that you would like, including saving or altering the picture.

MENU ITEM - HELP

Help - Index:

Index will call up Paint Shop's built in help system. If you are unfamiliar with using built in help systems, select the Help-Using Help option.

Help - Using Help:

Using Help will explain how to use built in help systems.

Help - About:

Displays general information about Paint Shop. Press the OK button to close the About box.

File Association

Picture files may be opened using file association. File association is the association of the file name extension within File Manager. See your Windows manual for information on how to setup associations to file name extension in File Manager.

Marking

Marking is the operation of defining a specific area of the picture for a future copy or trim operation. To mark an area of a picture, move the cursor to the upper left point of the area to be marked. While holding down the left mouse button, move the cursor to the lower right corner of the area to be marked. Release the left mouse button.

The area that is marked will be outlined with the size of the area displayed in the center of the marked area.

You may now use Edit-Copy to copy the marked area to the clipboard, or you may use Alter-Trim to make the marked area the current picture.

FILE FORMATS SUPPORTED

Pictures that may be used by PC computers are saved in many different formats. Paint Shop supports a limited number of these formats. It is the intention of Paint Shop to make the handling of these various formats as simple for the user as possible. Paint Shop will make all decisions possible about a file format.

This section explains the various file formats and the way Paint Shop will handle those formats.

BMP File Format:

The BMP files come in 2 different formats. These formats will be referred to as Windows and OS2.

OS2 BMPs were the first of the two different formats designed. The pictures that are saved using this format may be used with the OS2's Presentation Manager. An enhanced BMP file format was released with MicroSoft Windows. This is the reason for the reference to Windows and OS2 BMP formats.

BMP files can be used as "wallpaper" for the background when running in Windows. See your Windows documentation on how to use a BMP file as wallpaper.

Within the Windows BMP format, two different types of encoding can be used. These are RGB and RLE. The OS2 format only supports one type of encoding, RGB.

Files that use the RGB encoding scheme have no encoding done. The data that makes up the picture is simply saved to a file. This makes for some very large BMP files.

The RLE (run length encoding) scheme does some compression of the data that makes up the picture. The RLE encoding is further broken down into 2 different formats; RLE4 and RLE8. RLE4 is the RLE compression routine used for picture data of 16 or less colors. RLE8 is the compression routine that is use for pictures of 17 to 256 colors.

Paint Shop supports all formats and encoding schemes of BMP files. No work is required by the user to properly open a BMP file.

When saving a file as a BMP, the user will have to select either OS2 or Windows. Since the OS2 format only supports the RGB encoding, all files saved as OS2 will use RGB encoding.

When saving as a Windows BMP, Paint Shop provides the option of saving the file as either a RGB or RLE encoded file. If you select RLE encoding, Paint Shop will determine the proper RLE (RLE4 or RLE8) encoding to be used.

GIF File Format:

There are 2 GIF file versions; 87a and 89a.

Version 87a was the first of the two versions to appear.

Version 89a added new features to the 87a format. None of these new 89a features are used by Paint Shop.

Both of these versions may use an encoding method referred to as interlacing.

Interlacing is when a picture is saved by using four passes instead of just one. On each pass certain lines of the picture are saved to the file. If the program decoding a GIF file displays the picture as it is decoded, the user will be able to see the four passes of the decoding cycle. This will allow the user to get a good idea of what the picture will look like before even half of the picture is decoded. Some communication programs allow the user to download GIF files and view them as they are downloaded. If the picture is interlaced, the user will be able to decide if the picture is one they like before half of the download is complete. If the user does not like the picture, the download can be aborted. This results in the saving of time and money for the person downloading the picture.

Paint Shop supports both 87a and 89a GIF file formats. Paint Shop also supports interlacing.

No work is required of the user to open a GIF file.

When saving a picture as a GIF file, the user has the option of saving the file as an 87a or 89a.

Since Paint Shop does not use any of the new features of the 89a version, all GIF files should be saved as 87a. This will allow older GIF viewers to display the pictures that are created by Paint Shop. The user will also have the opportunity to save the picture as an interlaced GIF. If you intend on uploading the picture to a bulletin board, it would be advantageous to save it as an interlaced picture.

Some GIF files contain more than one picture. Paint Shop will only process the first picture in the file.

IMG File Format:

Paint Shop supports black and white IMG pictures of any size.

If your picture is colored, you will have to dither it to black and white before saving the picture as an IMG file.

MAC file Format:

MAC files come from the Macintosh program MacPaint.

Mac pictures are very specific. They must have a width of 576 and a height of 720. MAC pictures are black and white.

Mac pictures should have a white background. You will be given the option of inverting the picture during the Prep for MAC operation. If your picture is using a black background, then you should select the invert option. If the picture is already on a white background then do not invert.

If you would like to see what the picture will look like when it is inverted, select the Alter-Invert menu option.

In order to save a picture as a MAC picture, the above requirements must be met. This can be accomplished by using the Alter-Prep for MAC menu command.

Paint Shop provides the option to saving the MAC picture with or without (W/O) a header. The MAC header is the information that is necessary for the picture to move back and forth (via BBS(s)) between the Macintosh and PC. Therefore, all pictures should be saved with the header.

The option to save without the header exists only because some PC applications want the MAC picture without the header.

PCX File Format:

There are 4 PCX file versions:

Version 0 - Black and white pictures.

Version 2 - 16 or less colors with palette information.

Version 3 - 16 or less colors without palette information.

Version 5 - 256 or less colors.

Paint Shop will read all PCX file versions.

If the file is a version 3 Paint Shop will use the default VGA colors used by Windows as the palette. This may result in a different looking picture than you would see when using some other picture viewer.

When saving a picture as a PCX file, Paint Shop will decide which version to use. The reasoning is to create the oldest version possible for that picture. This will allow older applications (which do not support the newer versions) to use the PCX files created by Paint Shop.

Paint Shop will use the following method to determine how to save a file as PCX file.

If the picture is black and white then the version will be 0.

If the picture is from 3 to 16 colors then the version will be 2.

If the picture has more than 16 colors, version 5 will be used.

RLE File Format:

RLE files are BMP files that use one of the RLE compression routines. Since a RLE compression routine is used, the file format is that of a Windows BMP file.

The only difference between a RLE file and a Windows BMP file that uses RLE coding is the file name extension.

For more information on the RLE encoding and Windows BMP file formats, please refer to the BMP file format.

LICENSING

You may use Paint Shop for a free 30 day trial period. If you continue to use Paint Shop after the 30 day trial period, you are required to obtain a license number. Use the registration form at the end of this document to register Paint Shop.

LICENSING AGREEMENT

You may not transfer your license without written permission from JASC, Inc.

You may physically transfer Paint Shop from one computer to another provided the program is used on only one computer at a time.

TERM:

The license to use this program is effective until terminated. You may terminate the license by destroying all copies of this program. It will also be terminated upon failure to comply with any of the terms or conditions of this agreement.

WARRANTY:

THIS PROGRAM IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. In addition, JASC, Inc. specifically disclaims all warranties, expressed or implied, including but not limited to implied warranties of merchantability and fitness. In no event shall JASC, Inc. be liable for any claims for lost profits or any other commercial damage, including but not limited to special, incidental, consequential or other damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

In no case shall JASC, Inc.'s liability exceed the license fees paid for the right to use the licensed software.

GOVERNING LAW:

This statement shall be construed, interpreted, and governed by the laws of the state of Minnesota.

AGREEMENT:

By licensing Paint Shop you agree to the above licensing agreement.

SUPPORT

Registered users may obtain support by contacting JASC, Inc. via Email on CompuServe (72557,256) or calling JASC, Inc. at 1-612-934-7117. Phone support is from 9am-5pm central time, Monday through Friday.

PAINT SHOP DISTRIBUTION

Copies of Paint Shop may be freely distributed, provided that PS.EXE, PS.HLP, and PS.WRI are distributed together.

No fee, charge or other compensation may be accepted for the distribution of Paint Shop. Except, Public Domain Disk Vendors and BBS(s) may charge a nominal fee for distribution of the program. The recipient of Paint Shop must be informed, in advance, that the fee paid to acquire Paint Shop does not relieve the recipient from paying the Registration Fee for Paint Shop if the recipient uses Paint Shop.

BUNDLING WITH OTHER PRODUCTS

Paint Shop may only be bundled with other products with the written permission from JASC, Inc.

REGISTRATION FORM

Paint Shop ver. 1.50

Registering Paint Shop entitles you to a license number and the right to continue using Paint Shop. Fill out this form and return it to JASC, Inc. to obtain your license number.

NAME _____

STREET _____

CITY _____

STATE _____ ZIP _____

TELEPHONE NUMBER _____

CIS NUMBER _____

If you would like to receive your license number via CompuServe.

Paint Shop license number.....\$25.00... _____

5 1/4 disk of the latest version.....\$10.00... _____

3 1/2 disk of the latest version.....\$10.00... _____

=====

Subtotal.... _____

Minnesota residents add 6% sales tax.... _____

=====

TOTAL IN US FUNDS... _____

Make checks payable to: JASC, Inc.

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