# PS INTERFACE

# **BY DAVID CASTELL**

The Program that Bridges Print Shop with XLEnt's Printware Series







P.O. Box 5228 Springfield, Virginia 22150 (703) 644–8881 Telex 269728 XLNT UR

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The Program that Bridges Print Shop with XLEnt's Printware Series



For the Atari 130 XE and 48K home computers



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# THE PRINT SHOP INTERFACE

The Print Shop Interface was designed to let you integrate PRINT SHOP with other graphics oriented programs. TYPESETTER, RUBBER STAMP, ATARI ARTIST, MICRO ILLUSTRATOR, MICROPAINTER, and COMPUTER EYES are some of the programs that can be integrated with PRINT SHOP using the Print Shop Interface.

The Print Shop Interface allows you to:

- Create your own Print Shop fonts using your favorite drawing program.
- Include pictures in your font (eg. Typesetter Icons), so you can have any number of pictures on a Print Shop printout. This also allows you to use the outline and 3-D effects with the pictures in your font.
- 3. Draw your Print Shop graphics with your favorite drawing program instead of with the crude graphics editor built into Print Shop.
- Compress full pictures or Typesetter icons into Print Shop graphics.
- Convert a part of a picture or Typesetter icon into a Print Shop graphic.
- 6. Convert characters from any Print Shop font to Typesetter Icons so you can use Print Shop fonts with Typesetter. Convert the Print Shop characters in four sizes: normal, double width, double height, and double width & double height.
- Convert Print Shop graphics to Typesetter Icons for use with Typesetter or for using Option 2 mentioned above.
- 8. Convert pictures from your favorite drawing program to Print Shop format so you can add text to them in any of Print Shop's fonts or print them in the Screen Magic portion of Print Shop. Until now, the Screen Magic section of Print Shop was only good for adding text to kaleidoscopes screens.
- 8. Convert pictures back to Dos II format after adding text to them. You can then print them with your favorite screen dump or use them in a slideshow program.
- 9. Keep your Print Shop formatted disks organized by using commands such as RENAME, DELETE, and FORMAT. There is also a DIRECTORY which will tell you the length of all the files and how much room is left on the disk.

Full screen pictures to be used by the Print Shop Interface must be in the 62 sector uncompressed format. If you are using Atari Artist or Micro Illustrator, save your pictures from your drawing program by pressing the unshifted INSERT key. This will create an uncompressed file called "PICTURE". If you are using some other drawing program, such as PAINT or FUN WITH ART, then you will have to find a program that will convert your picture files to an uncompressed format. To load The Print Shop Interface, just insert the disk into drive 1 and turn on the computer. XL/XE owner do NOT have to hold down OPTION when they turn on the computer, since BASIC is automatically deselected by the program.

When The Print Shop Interface loads in, you will be presented with a option menu with four choices.

The first option is the font creator. This program lets you create Print Shop fonts.

The second option is the graphics converter. This program lets you convert graphics and pictures back and forth between Print Shop format and Dos II format. This program also has various Print Shop housekeeping commands (eg. rename and delete).

The third option is the font converter. This program lets you convert Print Shop fonts to Typesetter Icons.

The fourth option is Exit to Dos. The font creator options requires you to make a copy of SIDE B of your Print Shop master disk. You may exit to Dos using option four to make a copy. Do NOT use Dos 2.5 to copy SIDE B because it copies it in the wrong density.

Select the number that corresponds with the program that you wish to be loaded.

The menus of the three conversion programs operate in a manner similar to the menus in Print Shop. Use the up and down arrow keys (without pressing CONTROL) to move the highlight bar. Press RETURN to select the function that is highlighted. Also, as in Print Shop, the ESCAPE key will abort almost any function.

abort almost any function. Throughout the conversion programs, you will be required to answer many questions. Most questions have a default value. If a question is followed by a character in reverse (black on white), that letter represents the default option. For example, the question "FORMAT DISK (Y/N)? N", means that pressing "Y" will format the disk and pressing any other key will skip this option. Therefore, "no" is the default value.

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#### Font Maker

#### INTRODUCTION

The eight fonts used in Print Shop are found on side B of the Print Shop master disk. Fortunately, side B of the Print Shop disk is unprotected. To create your own font, make a copy of side B by choosing the exit to Dos option of the main menu. Now, all that needs to be done is to replace one of the eight Print Shop fonts on side B with one of your own fonts.

No special font editor is needed to create your own font, just use your favorite drawing program and draw all of the characters of the font. This includes punctuaton, numbers, and capital letters. All of these characters do NOT have to be on the same screen. If you are creating a fairly large font, you will probably end up with several pictures, each holding only a few of the characters of the entire font. The only real restriction is that you should make sure your characters are not too close together.

When you have finished creating your font load in the Font Creator program (option 1 from the main menu). This program allows you to replace one of the eight fonts on side B of the Print Shop master disk with your own font. Since this involves deleting the old font, DO NOT REPLACE ANY OF THE FONTS ON THE MASTER PRINT SHOP DISK. Instead we will replace a font on a COPY of side B. After the font is replaced, whenever Print Shop tells you to insert side B, just insert the copy, which will contain your font.

#### USING THE FONT CREATOR

When the font creator loads in, a menu will appear. Just use this menu like the menus in Print Shop. Use the up and down arrows to move the highlight bar, RETURN to select an option, and ESCAPE to abort a function.

At the bottom of the screen you will notice a character set. These are all of the characters that are in a typical Print Shop font. The '@' symbol appears in reverse field because it is reserved and can not be part of your font. As you select your font, the characters you have selected appear in reverse field on this font line to let you know they have already been picked.

The process for creating fonts is very simple. You use your drawing program to draw the characters of the font (simple or elaborate, big or small) and you use this Font Creator program to convert all of the characters to a Print Shop font. You don't really have to create all of the characters that appear on the font line, just remember when you are entering text in Print Shop not to use any that you haven't created.

# Font Maker Options:

#### Dos II Directory

This option is here merely to help you remember what you called your font pictures.

# Load Font Picture

This option allows you to load in any of your pictures that contain some of the characters of your font.

#### Load Typesetter Icon

This option allows you to load in a Typesetter Icon. The icon might contain one or more characters in the font or it may just be a picture that you want to include in the font.

#### Add Character to Font

After loading in a picture that has some of the characters of the font on it, you would use the "add character to font" option to tell the program which part of the picture represents which character. For example, if you loaded in a picture with the alphabet on it, you would have to use the "add character to font" option 26 times, once for each letter of the alphabet. Each time, you enter a letter from the keyboard and then move a cursor with the joystick over to the section of your picture that contains that letter and draw a border around it. The program then takes all of the data within that border and asigns it to the corresponding letter.

After selecting the "add character to font" option, the message "Enter Character:" appears below the options. Press the key on the keyboard that corresponds to the character on the font line (at the bottom of the screen) that you are about to select. You do not have to select the characters of the font in any special sequence. The character you are selecting should be on the last font picture that was loaded in using the Load Font Picture option. After pressing the desired character, the screen will flip to the font picture. About midscreen a small square appears. The joystick in port 1 moves this square around the screen. Move the square to the top left corner of the character you are selecting. Press the joystick button to select this as the top left corner of the character. Now, the joystick moves the bottom right hand corner of a frame originating from the top left corner you selected. Position the frame so that it completely surrounds the desired character, then press the joystick button. You have now selected that character and the contents of the frame are copied into the font memory. If you change font pictures, it will not affect this character because it has been copied to the font in memory. After selecting this character, you are returned to the

option screen. If you look at the font line at the bottom of the screen, the character you have just selected appears in reverse field.

When the font picture is displayed and you are selecting the frame size, pressing any key will abort and return you to the option screen.

After positioning the frame and selecting the character, the character may be shifted to the left slightly so it is in the proper format. For this reason, do not place another character immediately to the right of another character or part of this character may also be shifted. Leave about the width of one graphics zero text character between any two characters on the same line. This problem does NOT occur vertically.

You may reselect a character that has been selected before. The old data will automatically be erased from your font and the selection process will then continue normally.

All characters are selected in the same manner as mentioned above. The only exception is the "space". The height and the contents of the frame are ignored. Only the width of the frame is taken into account. Be sure not to forget about the "space" or you won't be able to put spaces between words when using your font in Print Shop. The font creation method is very flexible. For

The font creation method is very flexible. For example, instead of assigning a drawing of the number '1' to the '1' character on the font line at the bottom of the screen, you could assign a picture to it. You can use drawings from your drawing program or use Typesetter icons and assign them to any character in the font. For example, you may want to assign nine typesetter icons to the numbers 1-9 of the font. When entering a message in Print Shop, wherever you type a number, the corresponding Typesetter icon will be printed in that position.

You may want to use most of the characters of a current Print Shop font, but alter the font somewhat (eg. replace punctuation with pictures). To do this, you would load Print Shop and go to the Screen Magic section. Select the "add text to picture" option and when asked to enter the message, just enter as may characters of the font as you can. Then save the picture and then repeat the process, but blank the screen first, creating as many screens needed until you have saved all of the characters you want to include in your new font. MAKE SURE THAT YOU PUT A SPACE BETWEEN EACH CHARACTER WHEN ENTERING THE MESSAGE. This is very important since you MUST NOT have two characters overlap. After creating the last screen, you would load in the Graphic Conversion program of the Print Shop Interface and convert all of the screens you have made to Dos II format. Then you would load in the Font Converter program and select each of the characters on the screens as well as adding your new characters.

#### Save Font to Print Shop Disk

After you finish selecting the characters in your font, you can now save it on the copy of side B using this option.

After selecting this option, the following message appears:

Replace Which Font: 1=RSVP 4=TECH 7=TYPEWRITER 2=ALEXIA 5=PARTY 8=STENCIL 3=NEWS 6=BLOCK

You should select the number that corresponds to the font you wish to replace. You must remember which font you replace because when you are asked to select a font in Print Shop, the font's name and appearance will be the same as always. It isn't until Print Shop actually "uses" the fonts for printout, that your font appears.

You should replace a font that is close to the size of your font. The characters of your font will be horizontally centered properly no matter what their size is. However, vertical centering is based on the size of the font you are replacing. If your font is not very close to the size of the font you are replacing, do not use the vertical centering option in Print Shop. The size of the square that Print Shop allows you to type your message in, varies between the different fonts. Also, if you replace a big font (eg. RSVP) with a small font, there will be a large space between each row of text. Similarly, if you replace a small font (eg. TYPEWRITER) with a big font, the rows of text will probably overlap. The fonts are numbered in order of biggest to smallest.

If you are including pictures, such as Typesetter icons, in you font, you will inevitably have problems with VERTICAL overlapping. When entering the message to be printed, you will have to leave a few blank lines directly below a character that causes a picture to be printed. Since Print Shop thinks it is using its original fonts, you will have to manually avoid vertical overlapping when entering your message. You might want to try using your new font in the Screen Magic section of Print Shop, so you can learn how to avoid overlapping without wasting paper.

There is the possibility of running out of disk space on Side B if your fonts are a lot larger than the fonts you are replacing. If you use the Directory option of the Graphics Converter program, you will see that there is 184 free sectors on the normal side B. If all of your fonts together take up 184 sectors more than the fonts they replaced, you will run out of disk space. If this happens, use the Delete option of the File Converter program to delete the two kaleidoscope programs (KSCOPE1 and KSCOPE2) on side B. Just remember, if you select the kaleidoscope option when in the Screen Magic portion of Print Shop, insert Side B of the MASTER Print Shop disk so the kaleidoscope program you have selected will load properly.

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After it has loaded in, re-insert your version of Side B.

# Erase Font in Memory

This option clears your font out of memory so you may start selecting a new font. Pressing the SYSTEM RESET key accomplishes the same thing.

#### Graphics Converter

When this program loads in you will see a double column option menu. This menu operates like the menu in Print Shop, except that the left and right arrow keys move the highlight bar back and forth between the two columns.

The left column contains functions that involve Print Shop formatted disks as the destination disk. For these functions, the program will check to make sure that the destination disk in the drive is, in fact, a Print Shop formatted disk.

The right column contains functions that involve Dos II formatted disks as the destination disk.

File Converter Options:

#### Directory

In the Print Shop directory, the names and lengths (in sectors) of each program are shown on the left half of the screen. If the last of names reaches the bottom of the screen, press any key to see the rest of the directory. When the directory is finished, the number of free sectors will appear at the top of the right half of the screen. In the Print Shop format, a filename can be up to 16 characters long.

Each Print Shop sector allows for one byte more than Dos II. Because of this, an uncompressed hi-res screen is only 61 sectors long, instead of the usual 62 sectors. However, this small gain in disk space is overshadowed by the fact that each directory entry (program name) takes three times as much disk space as the Dos II equivalent. Therefore, three times as many sectors have to be reserved to hold the directory. As a result, a blank Print Shop formatted disk only has 686 free sectors, instead of the 707 free sectors in Dos II.

After getting a directory, press any key to return to the option screen.

#### <u>Format</u>

After selecting the format option (of either format), the message "Are you sure?" will appear on the top line of the screen. Press 'Y' to format or any other key to abort. The top line is used for all prompts and messages in the file converter.

#### <u>Rename</u>

Insert the Print Shop formatted disk. Enter the old and new names at the prompts and the file will be renamed.

#### Delete

Insert the Print Shop formatted disk. At the prompt,

enter the name of the file to delete and the file will be deleted.

# Screen to Print Shop

This option allows you to convert any uncompressed (62 sectors long) picture to Print Shop format. This picture can then be used in the Screen Magic section of Print Shop. Screen Magic allows you to: load, save, print the picture, or add text in any of the 8 fonts.

You will be prompted to enter the name of the picture to load. Place the Dos II disk with the picture on it in the disk drive and enter the name of the picture. After it loads in, you will be prompted for the name you wish to save it as on the Print Shop disk. Place your Print Shop formatted disk in the drive and enter the save name or just press RETURN to keep it the same as the load name.

#### Screen to Dos II

This option allows you to convert an uncompressed picture in Print Shop format back to Dos II format so it can be used with your art program or any of your screen dump programs.

You will be prompted for the name of the file to load. Insert the Print Shop disk with the picture on it and enter the name of the picture. After the picture is loaded, you will be prompted for the name to save the file as on the Dos II disk. Insert the Dos II disk and enter the name or press RETURN to keep it the same as the load name.

#### Graphic to Print Shop

This option allows you to convert part of a picture to a Print Shop graphic or compress a whole picture to a Print Shop Graphic.

After selecting this option, you will be asked if you wish to convert the whole picture or just a part of it. If you select to convert part of a picture, you will be asked to enter the name of the picture. Insert the disk with the picture on it and press RETURN. The picture will be loaded in, and a glowing frame will appear in the top corner of the The frame represents the size of a Print Shop Use a joystick to move this frame around the screen. graphic. screen. When the frame contains the section of the picture you wish to convert to a Print Shop graphic, press the joystick button. You will then be asked if you wish the picture to be "normal or reversed". If the white parts of the picture appear white on the screen, they will appear black when printed. To avoid this select the "reverse" option. Similarly, if the black parts of the picture appear white when displayed on the screen, they will appear black on the printer, so you would select the "normal" option.

If you choose to compress an entire screen into a Print

Shop graphic, the procedure is much different. Since a Print Shop graphic is one sixteenth the size of a whole screen, a lot of detail will be lost. There are also many different ways a picture can be compressed. After the picture is loaded, a screen containing twelve Print Shop graphics is displayed. Each graphic is the same compressed picture, but each is compressed in a slightly different manner. Examine these graphics and enter a letter from A to L, that corresponds to the graphic that you wish to save. At the bottom right corner of the screen is a guide showing which letters represent which graphics. After you select the letter of the graphic to save, you will first be asked if you wish the graphic to be "normal or reversed" before you are asked to enter the save name.

When a full screen graphic is compressed, the height to width ratio is slightly distorted. This means, when the graphic is printed, it will appear taller and thinner than you would expect it. The distortion is usually so slight that you do not really notice it, however, when compressing digilized pictures, this problem tends to stand out. To help with this problem, a "scaling" feature was added. The "scaling" feature will bring the picture back to its proper proportions, but it also further cuts down on the resolution of the picture. Before you are asked for the name of the picture to loaded you will be asked if you want scaling.

#### Graphic to Dos II

This option will convert a Print Shop graphic from a Print Shop formatted disk to a Typesetter icon on a Dos II formatted disk. At the prompt, insert the Print Shop formatted disk with the graphic on it and enter the filename to load. The graphic will then be loaded in and you will be prompted to enter the save name. Insert the Dos II destination disk and enter save name or press RETURN to keep it the same as the load name.

#### Typesetter to Print Shop

This feature is almost exactly the same as the screen to Print Shop feature. The only difference is that, with the compress option, only three graphics will be displayed (instead of 12).

#### **NOTE:** Filenames

In the Graphic Converter program, when you are converting to Print Shop format, the file name you enter must be unique, since this program does NOT automatically delete a file on the disk with the same name. If you are replacing a file, use the DELETE option first. If, by accident, you save under an existing name, both files will exist on the disk. All functions will only be performed on the FIRST name. Therefore, after discovering your mistake, you can use the DELETE or RENAME function to change the first file.

There are NO wildcarding functions with Print Shop format files. You must enter the entire name of the Print Shop file.

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#### Font Converter

When using Typesetter, even though you may increase the size of the Typesetter fonts, the fonts will not be very detailed. Therefore, if you want large characters for titles that are "smooth looking", you would have to go to the sketch pad and manually add detail to smooth out the rough edges of the characters. To some this tends to be a tedious process. However, this font converter program allows you to convert the characters of any Print Shop font to Typesetter icons. Once the characters are Typesetter icons, you can use the sketch pad to load in the characters and overlay them on the main screen. This way you can have large characters without rough edges for titles.

#### CONVERTING FONTS

When the font converter first loads in, you will notice the names of the eight Print Shop fonts on the screen. Use the up and down arrow keys to move the highlight bar to the font you wish to convert and press RETURN. You will then be prompted to enter SIDE B of the Print Shop master disk. Insert the disk and press RETURN.

After the font is loaded in, you will be prompted to Insert your data disk and press insert your data disk. RETURN. You will then be asked if you wish to format the An entire font takes up a whole disk, so if you data disk. want to convert an entire font, you should probably format the disk first. The next question asks if you wish to convert an entire font or just a few characters in the font. You will then be asked for the size of the font. The options are normal size, double width, double height, or double width and double height. When the characters are saved to the disk, they are saved under predefined names. For example, the number 1 is saved as "ONE", the letter A is saved as "A", the exclamation mark is saved as "EXCLAIM". The advantage of having predefined names is that you do not have to enter a filename for each of the 57 characters. Also, the filenames will be the same for each font. The problem with this occurs when you try to save some of the characters of a font onto a disk with the same characters from another font. The new characters would write over the old ones, since they have the same filename. To avoid this, before the converting begins, you will be asked if you wish to add an extension to the character names. If you choose to, you will be asked for an extension of up to three characters. For example, if you choose the extension "ALX" (for the ALEXIA font), all of the filenames will have the extension "ALX" (eg. the number one will be saved as "ONE.ALX"). Therefore, if there is already a "ONE" file on a disk, the new one won't destroy the old one. If you are converting an entire font, each character

If you are converting an entire font, each character will be displayed on the screen and then saved to the disk.

However, only 54 characters will fit on one disk, so the '<', '>', and '=' characters will not be saved.

If you are converting only part of a font, each character will be displayed and you will be asked if you wish to convert the character. If you press 'Y', that character will be saved. Otherwise, the next character will be displayed.

# USING THE FONTS WITH TYPESETTER

The easiest way to use the font converter program is to write down all of the titles (and their sizes) that you wish to include on your Typesetter page. Then, load in the Font Converter and convert all of the characters required, in their desired sizes. This is the most efficient way, since to keep a library of disks containing all of the characters of the 8 fonts in all 4 sizes would take 32 disks.

When Typesetter is loaded, select the sketch pad option. Use the "view main screen" option, to scroll over the page to find the desired spot for the text you wish to enter with the Print Shop font. Return to the viewing the sketch pad and load the first letter of the title. Press CONTROL and O to overlay the first letter on the main screen.

Load the next letter of title. Use the "view main screen" and use the arrow keys to scroll the main screen a little to the left. You may find that you will have to use the joystick button to toggle back and forth between the sketch pad and the main screen several times before you are sure the second letter won't overlap the first when it is overlayed on the main screen. When you have aligned the main screen properly, return to view the sketch pad, use the joystick to move the cursor away from the command line, and press CONTROL and O to overlay the second character. Just repeat the above procedure for the rest of the characters in the title.

# PREDEFINED FILENAMES

The predefined filenames for the punctuation characters and their respective characters are listed below:

EXCLAIM [!], QUOTES ["], NUMBER [#], DOLLAR [\$], PERCENT [%], AND [&], APOST ['], LBRACKET [(], RBRACKET [)], LESS [<], GREATER [>], EQUALS [=], PLUS [+], DASH [-], ASTERISK [\*], SLASH [/], COMMA [,], PERIOD [.], SEMI [;], COLON [:], QUESTION [?]

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#### APPENDIX A

# **Converting Graphics Files**

In the November 1985 issue of ANTIC, Charles Jackson published his Rapid Graphics Converter. This utility will let you convert files from several commercial programs to the 62 sector format file used by P.S. Interface, Page Designer, Rubber Stamp and Typesetter.

Charles' program supports the following packages: Micro Illustrator Micropainter Fun With Art Paint Visualizer Moviemaker Graphics Master Atarigraphics Graphics Machine

If you need this utility, check with your local users group, dealer or ANTIC.

#### A NOTE ABOUT THE AUTHOR

David Castell is an 18 year old high school senior in Peterborough, Ontario, Canada. He is also the president of his local Atari user's group. David has owned an Atari 400 since 1981, but now also has a 130XE and 520ST.

David has written a couple of video games intended for commercial release. Unfortunately, by the time the first game was finished, it was already outdated by games with better graphics. The second game, which boasted better graphics, was finished in the midst of the declining popularity of video games. Both games are now just gathering dust somewhere among the other disks in his disk case.

It was at this point he gave up trying to conquer the elusive video game market and started concentrating on writing a wordprocessor and several utilities. One of the utilities was accepted by ANALOG Magazine, but has yet to be published. Some of his other programs have found their way into the public domain while others haven't made it out of his disk case.

David is currently writing programs on the 520ST, but plans to continue programming on his 130XE.







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