

FontView™

Reference Manual



SoftView Systems, Inc.

August, 1998

Notice

SOFTVIEW SYSTEMS MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

SoftView Systems shall not be liable for errors contained herein or for incidental consequential damages in connection with the furnishing, performance or use of this material.

All rights reserved. No part of this document may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior written permission from SoftView Systems, Inc. Making copies of this book for any purpose is a violation of United States copyright laws.

The information contained in this document is subject to change without notice.

Copyright © 1992-1998 by SoftView Systems, Inc.

For information contact:

SoftView Systems, Inc.,
9411 Meadow Woods Lane, Dayton OH 45458 USA
(937) 436-1189
softview@iname.com

Printing History

First Edition - September, 1994
Revised - August, 1998

Current FontView™ Version - V2.7

Trademark Credits

DijiComp™ is a trademark of Scitex Digital Printing Systems. Macintosh is a product of Apple Computer Inc. Microsoft® is a U.S. registered trademark of Microsoft Corporation. Windows™ is a trademark of Microsoft Corporation. TrueType is a registered trademark of Apple Computer Inc.

Contents

Introduction	1
1 Getting Started	3
2 Opening a Font File	5
Open an Existing Font File	5
Opening a MailView Font	7
Create a new Font File	7
3 Editing Characters	9
Selecting a Character for Editing	9
Changing the Character Display Size	10
Adjusting the Pattern Position	10
Changing the Character Width	10
Editing the Pattern	10
Saving the Character into the Font	10
4 Editing the Font	13
Making Font-Wide Changes	13
Adding a Font Description	14
Showing the Font	15
Moving Characters in the Font	15
Cut, Copy and Paste	15
Printing Font Specimen Sheets	16
5 Converting from Other Font Formats	19
Converting TrueType Fonts	19
Converting AFP-format Fonts	23
6 Importing Graphic Images	27
Open an Image File	27
Pasting an Image from another Window	27
Specifying Character Data	28
Selecting the Character Image	29
7 Saving the Font to Disk	31
Saving in Scitex Format	31
Saving to a MailView Library	31

8	The FontView INI File	33
	Input Options	33
	Output Options	34
	TrueType Conversion Options	35
	Specimen Print Options	36
9	Error Messages	39
	Opening a Font File	39
	Creating a New Font	41
	Editing Characters	41
	Editing the Font	42
	Converting TrueType Fonts	45
	Opening an Image File	47
	Pasting an Image from the Clipboard	48
	Specifying Character Data	48
	Displaying a Character Image	49
	Saving the Font File	49
a	Appendix A - Font Guidelines	51
	Font Height	51
	Baseline	51
	Character Widths	51
	Kerning	52
	Original Image Resolution	53
	Index	55

Introduction

The FontView software is a Microsoft Windows™ application that creates and/or modifies fonts for the Scitex Digital Printing Systems, Inc. 2700, 2800, 2900, 3000, 3500 and 3600 ink-jet imaging systems. FontView allows the user to convert Windows TrueType® outline fonts and IBM AFP-format bitmap fonts to Scitex format and also can create new characters by importing graphic images from scanner files or from another Windows application.

The Scitex ink-jet imagers use bitmap fonts - each combination of typestyle and size is a font and the character images are defined as a series of black and white dots in a rectangular matrix. The characters in a font may have varying width, but all character matrices in one font must have the same height. There may be up to 256 characters in a font and they are laid out in the IBM EBCDIC character sequence.

FontView also provides tools for viewing and modifying existing Scitex fonts. Characters may be modified, moved to new positions, new character patterns may be substituted and overall changes may be made to the font height and to the position of characters in the matrices. Character patterns may also be cut and pasted from one font to another, allowing reorganization of existing fonts.



1

Getting Started

The FontView system consists of this manual and a single 3.5" floppy disk containing the software. If you need 5.25" floppy disk media for installation on your computer system, please contact SoftView Systems, Inc. for replacement.

Required Minimum System

FontView needs the following minimum software and hardware to operate:

- 386-based (or greater) DOS-compatible computer
- Microsoft Windows 3.1, Windows95 or WindowsNT
- 4MB of RAM
- Hard drive, 3.5" or 5.25" floppy drive, Windows-supported VGA or better graphics adapter, mouse

Installation

FontView™ is installed with a standard Windows™ installation procedure. Either select 'Run' from the Start menu (or File menu on Windows 3.1) and select 'SETUP.EXE' on the installation disk, or in Windows95/WindowsNT, go to the Control Panel, Add/Remove Programs icon and use the 'Install' button.

FontView includes an uninstall procedure, so it may be uninstalled from Windows95 and WindowsNT 4.0 through the 'Add/Remove Programs' icon.



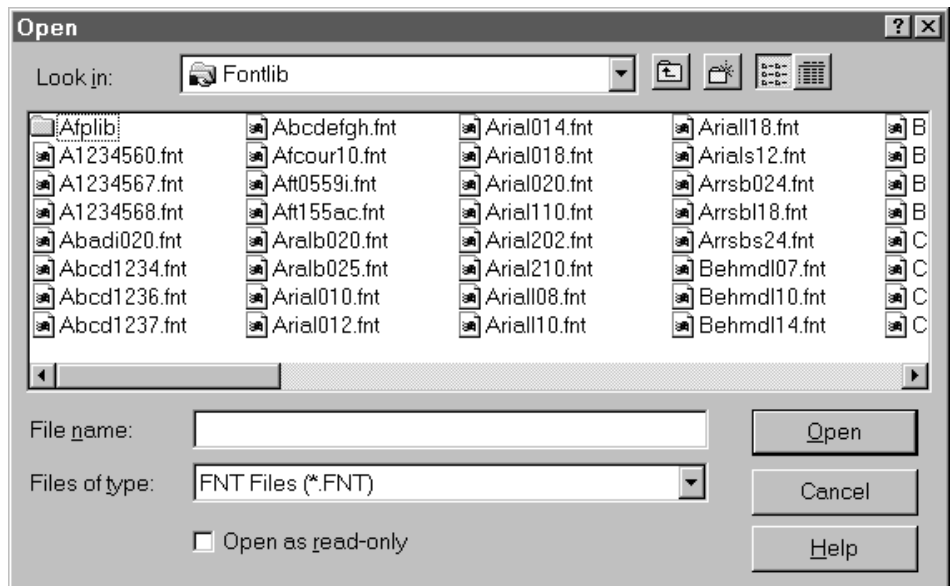
2

Opening a Font File

The first step in the FontView process is to specify the Font File that is to receive the new characters. This may be an existing Scitex or MailView™ font or you may create a new file in this step.

Open an Existing Font File

- Select 'Open' from the 'Font' menu at top left. The 'Open File' dialog box will appear.



- Type or select the directory and filename of the Font File.
- Choose the OK button.

The window title above the menu will now show the name of the font that is loaded in the FontView program and the complete font will be displayed in a 16x16 grid format. All existing characters are displayed at full size in their respective font positions. Any font positions that are empty are shaded.

FontView - E:\FONTLIB\Helv0020.fnt																
Font		Image		Character		Preferences		Help								
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																
1																
2																
3																
4											¢	.	<	(+	
5	&										!	\$	*)	:	
6	-	/									,	%		>	?	
7											:	#	@	'	=	"
8		a	b	c	d	e	f	g	h	i						
9		j	k	l	m	n	o	p	q	r						
A		~	s	t	u	v	w	x	y	z						
B		[]													
C	{	A	B	C	D	E	F	G	H	I						
D	}	J	K	L	M	N	O	P	Q	R						
E	\		S	T	U	V	W	X	Y	Z						
F		0	1	2	3	4	5	6	7	8	9					

Font Display

Transfer from the Mainframe Computer

FontView can read font files in ASCII or EBCDIC. You don't need to do anything to get this to happen - FontView figures it out for itself. This means that, as long as you download the font files and specify NO ASCII conversion and NO addition of CR/LF characters when the file is transferred, whatever the format of the file on the mainframe, FontView can handle it. When saving a modified file to disk, FontView saves it in the format it was read - i.e. ASCII files remain ASCII after FontView changes.

When you create new fonts with FontView, the fonts can be saved in EBCDIC (see Section 8 regarding options in the .INI file). This allows for easier viewing on the mainframe with consistent transfer procedures. Just ensure that the files are NOT

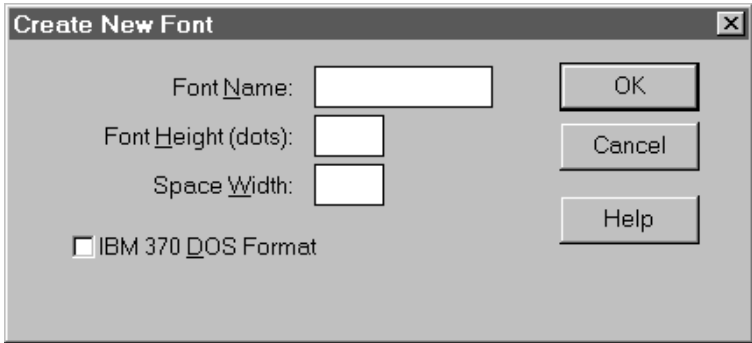
translated again when you upload them to the mainframe!

Opening a MailView Font

You can also open a font directly from a MailView™ / MailForm™ library. When the Open File dialog appears, select the directory containing the MailView library and choose the MailView font you want to view and/or edit. Make sure you select the font file with the .FNT extension, not the files for the other three rotations of the font. When you finish editing the font, you can save it back to the same MailView library (with the 'Save to Library' item on the 'Font' menu) and/or as a Scitex-format font file that can be uploaded to the mainframe for DijiComp™ use. This feature allows you to use FontView™ as a converter between Scitex and MailView™ font formats and to do all your editing from the MailView library, just making copies for DijiComp as needed.

Create a new Font File

- Select 'Create' from the 'Font' menu. The 'Create Font' dialog box will appear.



- Enter the font name, which must be exactly 8 alphabetic and/or numeric characters.
- Enter the font height in dots. The actual printed height of the font will depend on which imager system it is used with. 3000 and lower numbered systems print at 120 dots per inch. The 3500/3600 system prints at 240 dots per inch and the same fonts will appear half the height on this system as they do on the others.
- Enter the space character width in dots. For proportional fonts, this should be about 1/3 the height of the font. For

fixed-width fonts, it should be the same as the other character widths.

- If required, click on the 'IBM DOS Format' box to specify that the font should be output with IBM 370 DOS Catalog records for use with the IBM 370 DOS operating system.

When FontView creates a font, it automatically adds characters for the space, half-space, quarter-space and 1 dot space in EBCDIC Hex positions 40, 30, 20 and 10 respectively. It does not generate a space character in Hex position 0C (the split-space character used in mixed-size fonts for the old Data System). If this character will be needed, you must create it by storing a blank image of the necessary width.

3

Editing Characters

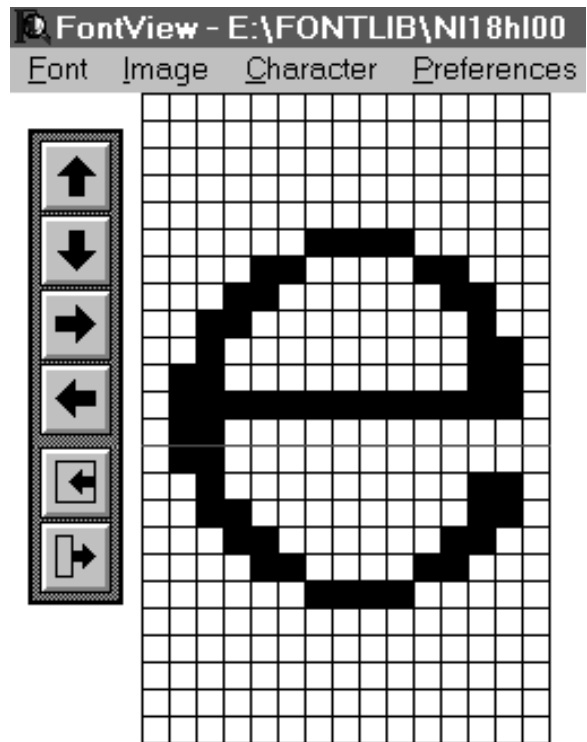
The character pattern may be adjusted up or down, left or right in the Character Matrix. The width may also be adjusted by moving the right edge of the matrix in or out and you can add or remove dots in the pattern, thus allowing complete pattern editing.

Selecting a Character for Editing

To select an existing character for editing, ensure that the Font Display is visible on-screen. Then click once with the left mouse button on the character to be edited. The Font Display will be erased and the chosen character will be displayed in an enlarged grid with a ToolBox containing six arrow buttons to the left of it. A red horizontal line shows the position of the Baseline if specified previously. If the character image is bigger than the window, you can use

the scroll bars to position it as you wish. Moving the image with the scroll bars does not adjust the image in the character matrix. If the character to be edited is extracted from a graphic image, FontView will automatically display the enlarged character when you define the area to be extracted.

If, while editing the character, you wish to see the display of the whole font, choose 'View' under the 'Font' menu. Then, to get back to the character display, choose 'View' under the 'Character' menu.



Changing the Character Display Size

The Character Display may be zoomed up or down to show more or less of the character matrix in the window. Choose 'Character | Zoom | In' to make the display larger, enlarging each matrix dot, or 'Character | Zoom | Out' to make the display smaller showing more of the character with smaller dots. Select these repeatedly to continue zooming the display.

Adjusting the Pattern Position

Click the left mouse button on one of the four arrow buttons at the top of the Control Panel at the left side of the window. Each click will move the image one dot in the direction of the arrow.

If you have extracted image elements from the original graphic that you do not want to include in the current character (e.g. part of an adjacent character), move the image in the matrix in the appropriate direction to shift the unwanted dots off the edge of the matrix. You can then shift the section you want back into the desired position. Any black dots shifted out of the matrix are permanently lost.

Changing the Character Width

The width of the character can be changed by moving the right edge of the character matrix in or out. Click the left mouse button on one of the two buttons below the arrow buttons in the ToolBox at the left of the window. The top button of the two makes the character narrower and the bottom button makes the character wider. Each click on these two buttons changes the width by one dot.

Editing the Pattern

Any changes to the shape of the character can also be made while the enlarged character display is visible on-screen. Put the mouse pointer on the square that you wish to change color and click the left mouse button to make the square black or the right mouse button to make it white.

Saving the Character into the Font

When your adjustments to the character image are complete, you can save the character into the font by selecting 'Save' from the 'Character' menu. If this is an imported character and an image already exists in the current position, FontView will pop up a warning message and allow you to either cancel and save the original character or go ahead and replace it with the new image.

If you selected an existing character for editing, FontView assumes you will want to replace the unedited character with the new version and will not display the warning message.



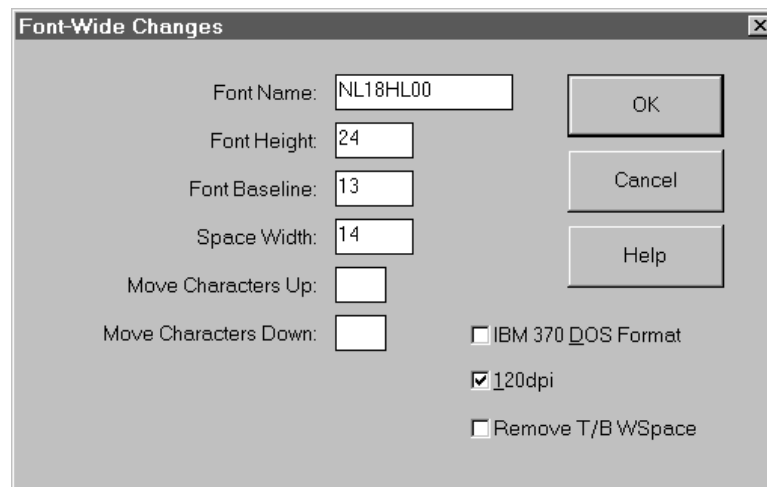
4

Editing the Font

Changes may be made to the font that apply to all the characters, such as changing the Font Height and the vertical position of all the characters in the font. You can also move characters to different font positions.

Making Font-Wide Changes

Changes that apply to the whole font can be made by selecting 'Change' from the 'Font' menu.



The 'Font Change' Dialog box allows you to change:

- the Font Name - enter any new name you desire for the updated font. This name must be eight (8) alphanumeric characters.
- the Font Height - enter a new height in dots. FontView adds or subtracts rows of dots at the bottom of the characters. If you are reducing the font height and any character in the font has pattern dots in the rows you are deleting, FontView will pop up a warning message and allow you to cancel the change.
- the Baseline - set to any value less than or equal to the new font height.
- the Space Width - when this is changed, FontView also sets

the Half and Quarter-space characters (X'30' and X'20') to fractions of the new value.

- the Vertical Position of all characters in the font. Enter a number in the 'Move Characters Up' or 'Move Characters Down' box to adjust the vertical position of all the font characters by that number of rows.
- the three checkboxes on the right side allow you to change:
 1. the DijiComp file format to/from IBM DOS format
 2. to 120dpi or 240dpi resolution
 3. to remove all top and bottom white space from the font in one operation

When you change more than one item in the Dialog box, the changes will be applied in the order they are listed. Therefore if you wanted to move all characters up two dots then reduce the font height by two rows, you should do this in two separate steps or you might lose the bottom of some character patterns.

Note

When you change the name of the font with this function, the name is changed inside the file, but the name of the file is not changed. To change the name of the file, use the 'Save As' choice under the 'Font' menu.

Adding a Font Description

You can add descriptive information to the font which will automatically be included in the MailView™ font listing and printed on the Font Specimen Sheets. Select 'Font | Information' from the menu (when a font is open) and the following dialog box will appear:

- In the 'Similar To' box, you can enter a typeface name and/or style (such as Arial, Times Bold etc).
- On the Description line you can enter up 72 characters indicating anything that is useful — possibly the style and size of the font and what general character groups it contains.

-
- A standard Interline Space value (which will be used as the default in MailView™ unless another value is specified).
 - A Reference Number, which could be the page number in a Font Book.

If this font is saved in DijiComp™ format, this description data is hidden from DijiComp at the end of the file, but will be picked up automatically by the MailView font conversion program (MVFCNV.EXE), which eliminates the need for the user to type this data more than once. When the font is saved directly to the MailView™/MailForm™ library, the description is added to the MailView Font List automatically.

Showing the Font

The entire font (or as much as will fit on-screen) will be shown whenever a font file is opened or converted. You can select 'View' under the 'Font' menu to display the font at any other time. Use the window scroll bars to scroll the font display if it is larger than the window.

Moving Characters in the Font

Characters may be moved to different positions in the Font quite easily. With the Font Display visible, press and hold down the left mouse button with the pointer in the square containing the character to be moved. Holding the mouse button down, drag the character to the new position and then release the mouse button. The display will be redrawn with the character in the new position. Make sure, when dropping the character in its new spot, that the point of the mouse pointer is within the destination square. This will ensure it is moved to the right position.

Cut, Copy and Paste

Characters may be deleted from the current font and copied, either to an additional position in the current font or to a different font. First, select a character by clicking on it in the Font Display. Then from the 'Character' menu choose 'Cut' (or 'Copy'). The character will be deleted from the current font if you used 'Cut', and it will be placed in the Windows Clipboard. When there is a character in the Clipboard, the 'Paste' entry on the 'Character' menu will be enabled (not greyed out).

To paste a character into the current font, choose 'Paste' from the

'Character' menu. If the font is not currently displayed, FontView will automatically display it and the character to be pasted will appear at the cursor arrow. Move it until the point of the cursor arrow is in the rectangle for the character position where you want it to be and click the left mouse button. If the font is a large one in which the font display is larger than the window, make sure before you paste that the font is displayed and the position you wish to paste into is visible on the screen (scroll the display as necessary).

If you need to move or copy several characters from one font to another, they must be copied one at a time. However, if you open a second instance of FontView, the job will be easier. Open the receiving font in the first copy of FontView, then use ALT/TAB to get back to the Program Manager (or other Desktop). Double-click on the FontView icon to open a second FontView window and open the font from which you want to copy the characters. Then you can 'Cut' or 'Copy' a character in the second window, click on the first window to select it, choose 'Character' - 'Paste' in the second window and paste the character. Then click on the first window to get the next character and so on.

When copying characters from one font to another, if the heights of the fonts are different, taller characters will lose the bottom rows and shorter characters will get extra blank space at the bottom.

Note When you Cut or Copy a character pattern to the Clipboard, anything that was previously in the Clipboard is erased, so only one item can be clipped. However, when you Paste a character, the pattern stays in the Clipboard so that pasting the same character into several places in a font can be done quickly by pasting several times in a row.

Printing Font Specimen Sheets

Select 'Font | Print' from the menu to print a specimen sheet for the font that is currently open. The Specimen sheet contains information about the size of the font and the character heights and widths. It prints the descriptive information you entered (if any), it shows several sample lines of text using the font and it displays a font grid, similar to the one on the screen, showing all the characters in the font and where they are located. If the font

is very large, the grid image is printed at a reduced size to fit on the page. The samples are always shown full-size. If a Reference Page number is entered, it is printed as a page number so that the sheet can be used in a Font Book.

The Specimen Page will print correctly only on a printer that supports 600 dpi. The character patterns are scaled to appear the size and shape they will print using the 240 (or 120) dpi of the ink-jet system.

The Font Specimen Sheet may be customized to include or omit many of the items of information, to add the name of your organization, and to show your choice of sample text. This is done via the INI File (see the INI File setup Section of this manual).



5

Converting from Other Font Formats

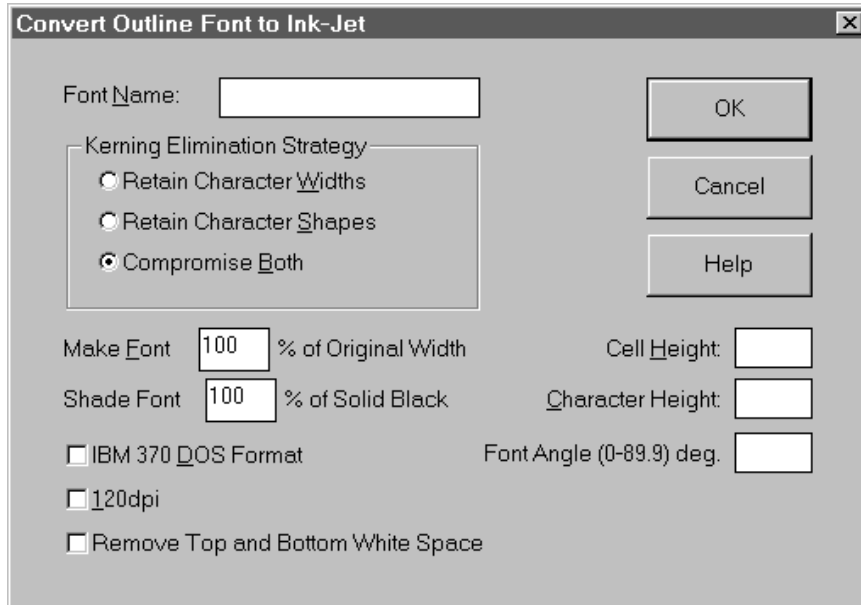
FontView can convert existing fonts in two different formats to the Scitex format, allowing their use on Scitex Ink-Jet printers. Fonts available in TrueType outline format (which is the format of fonts shipped with Microsoft Windows and of those fonts used on the Apple Macintosh systems) can be converted to make hundreds of sizes and styles from each typeface. Font files used with IBM AFP software to print on laser printers may also be converted to the same size and style for ink-jet.

Converting TrueType Fonts

Only actual TrueType outline fonts may be converted by FontView to Scitex fonts. FontView does not convert outline fonts of any other format. One reason for this is that TrueType fonts have been specially optimized to produce very clean character shapes in small sizes at low resolutions. The fonts converted by FontView, even in sizes as small as 8 point at 120dpi resolution, will need little if any hand editing and 'clean-up'.

To convert a TrueType font, you must first ensure that it is installed on your Windows system. Use the installation program that comes with the fonts package or use Windows' Font Installer program.

Select 'Convert Outline' from the 'Font' menu. The 'Convert Outline Font to Ink-Jet' Dialog box will appear.



Select options as follows:

- Enter an 8-character name for the converted Scitex-format font. This name must have 8 alphanumeric characters.
- Select a 'Kerning Elimination Strategy' from the three checkboxes in the group. As has been noted before, standard Scitex fonts do not allow 'kerning' (where one character overhangs another). If it is important when you use the converted font that character widths are exactly the same as those printed on a Windows or Macintosh printer, choose the 'Retain Character Widths' box. If it is important to copy the character shapes of the font precisely, choose the 'Retain Character Shapes' box.

Unfortunately, particularly in script or italic fonts, neither of these choices is optimal. When character widths are preserved, FontView compresses the character pattern horizontally to fit it into the original escapement width of the True-Type character, which can lead to severe distortion. When character shapes are preserved, the characters look fine, but the spacing between characters can be unacceptable. A third option is available, therefore, which is a compromise between the other two. The character shapes are compressed,

but less so and the widths are increased, but not so much. This often produces an acceptable result even with italic or other difficult faces.

- Below the 'Kerning Elimination' group is the line:

'Make Font ____% of Original Width'

This control allows you to modify the font to match how another version fits the space available, by expanding or condensing the font characters proportionately in the horizontal dimension only. For instance, to get a close match to a Times Roman sample your customer sent you, first generate the required size using your Times Roman with the width set to 100%. Use this font in MailView™ (or DijiComp™) to set the text of the customer sample, line for line with the sample. Measure the length of the text lines and compare them to the sample. Calculate the width percentage as:

$$\text{Sample Width} / \text{Your Width} * 100\%$$

Then regenerate the font with FontView™ using the calculated percentage on the width modification line. The resulting font should be a very close match to your customer's version, and should match line-for-line in most cases.

You can, of course, also use this control to create wider and narrower versions of a font just for special display purposes if you don't have those wider or narrower fonts available.

- 'Shade Font ____% of Solid Black'. Again, this control is normally set to 100% black for solid black-on-white fonts. This control is useful for generating shaded fonts for special display use. However, there is another, more valuable use for this control. If your job calls for a large, bold font and you are concerned about drying all the ink on this text at high printing speeds, you can generate a version of the font with a 90, 80 or even 70% shading which will reduce the amount of ink printed on that text. The small white dots in the screen shading will fill-in, making the letters appear solid, but the resulting print will dry much more easily on press (and you will save ink also). FontView™ provides 20 levels of shading in this control (5% increments) — if you enter a value not divisible by 5, it

will be rounded to the nearest available level.

- The 'Cell Height' and 'Character Height' boxes allow you to control the exact dot height of the generated font. If you enter a value (in dots) in one of these boxes, it will override the font size selected on the Font Select Dialog Box that follows. The Cell Height is the height of the full font including embedded inter-line white space. The Character Height is the height of the actual character patterns (from the top of the ascenders to the bottom of the descenders). In both cases, the font is generated including the white space defined by the Windows outline font — this may be removed using the bottom-most checkbox on this dialog box. You can, obviously, only set a value in either 'Cell Height' or 'Character Height' but not both. NOTE: Sometimes the rasterizer will choose a font height that is slightly different from the number you chose, because the font would not map well into your number. In this case, choose a number slightly larger than you want, and use the 'Font | Change' function to modify the font height to exactly what you want.
- The 'Font Angle' box causes FontView™ to rotate all font characters counter-clockwise in one-tenth degree increments, up to 90 degrees. The actual font height is set to a size that will just accommodate the resulting rotated font characters. To rotate a font to a different quadrant, use this rotation in combination with the ink-jet printer's 90-degree rotation capability — for example: to set a line at a 10-degree downward slope, the font needs to be rotated clockwise 10 degrees, so generate a font in FontView™ rotated at 80 degrees and set the text rotated right in DijiComp™ or MailForm™. For rotated fonts, FontView™ also generates three rotation tables at the end of the font data, which allows MailForm™ to automatically position each character in the line without any effort on the programmer's part. With DijiComp™, the programmer will have to use a REPOS to position each character explicitly.
- Click on the '120dpi' box if the font is to be used on the 3000 or earlier systems.
- Click on the 'IBM 370 DOS Format' box if the font is to be made compatible with this operating system.

-
- Click on the 'Remove Top and Bottom White Space' box if you do not want white spacing between lines included in the font matrix. You should usually check this box when the font is to be used with DijiComp™ because DijiComp™ has no method of setting lines closer together than the total height of the font. MailForm™ has a line spacing control that allows lines to be overlapped, so this does not matter as much.

When you click on the 'OK' button, the 'Select Font' Dialog box will appear. Only the TrueType fonts installed on your system are listed - none of the vector, bitmap or other outline format fonts can be selected. Select the typeface and point size you want to generate and select bold and/or italic as necessary. You can also select one of the Effects (strikeout, underline etc.).

When you click on the 'OK' button of the font select dialog box, the conversion will begin. Each character will be displayed momentarily in the top left corner of the window to remind you that the conversion is proceeding. When complete, the Font Display will appear, showing the entire font.

FontView only converts upper and lowercase letters, numbers and punctuation from TrueType fonts, except when a special Font Map is set up in the INI file (see the INI File section of this manual) and that Font Map is selected via the Preferences menu item.

Converting AFP-format Fonts

IBM AFP-format fonts are in bitmapped format. Each font has a fixed size and style. Since AFP printers normally use 240dpi resolution, a direct conversion to Scitex format will produce a font that should look identical on the 3500/3600 ink-jet systems. FontView can convert fonts used for both the older 'Unbounded-Box' printers and the newer 'Bounded-Box' machines.

IBM AFP fonts exist on the mainframe system in three separate files:

- A 'Coded Font' file whose name will begin with X and have a zero as the second character if for Bounded-Box or a one if for Unbounded-Box. The remaining six characters of the name are the name by which the AFP user knows the font.

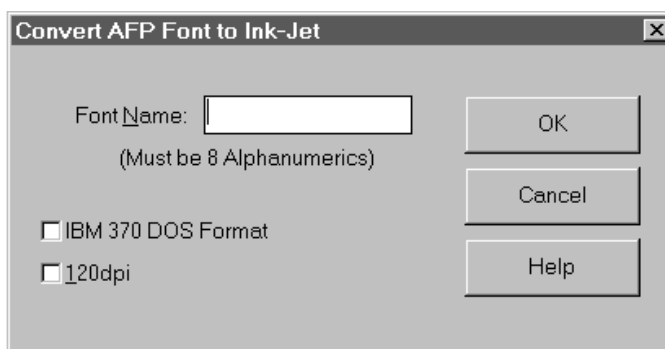
Example: for font CR10 the Bounded-Box file would be X0CR10

This file contains the names of the other two files needed for the font conversion.

- A 'Code Page' file whose name will begin with a T. This file specifies where the characters are placed in the font.
- A 'Font Character Set' file whose name begins with a C. This file contains the geometry and patterns of the font characters.

All three font files must be copied from the mainframe without translation to ASCII into the same directory on the hard disk (or floppy disk) of the PC.

To convert the font to Scitex format, select 'Convert AFP' from the 'Font' menu. The 'Convert AFP Font to Ink-Jet' Dialog box will appear.



Enter the 8-character name for the converted Scitex font and click on the 'IBM 370 DOS Format' box if applicable.

When you click on the 'OK' button, the 'Select File' Dialog box will appear. The file you must select is the 'Coded Font' file - the one that begins with X. When you click on the 'OK' button of the Select File box, the conversion will proceed and the Font Display will appear showing the entire font when completed.

You can edit the characters if desired and you must save the font to disk (see Section 7).

120dpi Systems

When converting IBM AFP-format fonts to Scitex format, an

option is now available that will produce a 120dpi version of the converted font for use on 3000 systems. Just click on the "120dpi" Checkbox on the "Convert AFP Font to Ink-Jet" dialog box.

Caution

Since the AFP fonts are bitmapped (and not outline like True-Type), the scaled-down characters will be more uneven and ragged than you would get from an outline font. If smoother results are required, hand-editing of the character shapes will be necessary after conversion.



6

Importing Graphic Images

In order to import images to be converted into font characters, a graphic image file must be opened. Alternatively, you may get these images by pasting them from the Windows Clipboard - which means they must have been copied there previously from some other Windows application (see *Pasting an Image from Another Window* below).

Open an Image File

- Select 'Open' from the 'Image' menu. The Open File dialog box will appear.
- Type or select the directory and filename. Note that FontView expects PCX format files and defaults to the .PCX filename extension.
- Choose the OK button.

As indicated above, FontView only supports image files in the PCX format, and these files must also be monochrome (black and white). Color PCX files and images in any other file format cannot be used with FontView, but you may be able to read them with another Windows application and paste them into FontView via the Clipboard. Most optical scanner software will output in the PCX format as will many image editing and 'Paintbrush' programs.

After you click on the 'OK' button there will be a short delay while the image is being read in and decoded. When this is complete, the image will display in the window. You can use the scroll bars to scroll the image to the area of interest.

When you have opened (or created) a font file and have an image displayed, the next step in importing a pattern is to define the character matrix and select the character image from the display.

Pasting an Image from another

FontView can accept bitmap graphic images from the Windows Clipboard, which means that any black and white image that can be read in, scanned in or created by most Windows applications

Window

can be transferred to FontView and made into a font character. It also means that you can use a 'Paintbrush' program to modify or clean-up the images you have scanned in and then transfer them directly to FontView without having to create an intermediate PCX file.

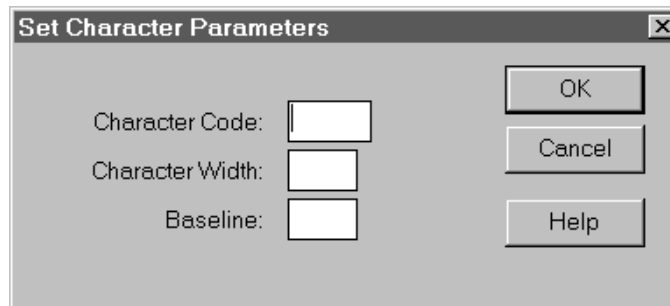
The procedure is quite simple. Having input your graphic image from file or scanner, most graphic Windows applications have a 'Copy' function which copies all or part of the image to the Windows Clipboard. Execute the Copy function, then call up FontView. You can have both applications open in different windows at the same time. In the FontView window, select 'Paste' from the 'Image' menu. The image that was copied to the Clipboard will appear in the FontView window. You can then proceed to define the character matrix and select the character image from the display.

As has been stated above, FontView handles only black and white images. If you copy a color image into the Clipboard and paste it into FontView, all colors except white in the original image will become black in the FontView copy. This may not always be desirable.

Specifying Character Data

Before the image for a character can be selected, the Character Code (position in the font) and Character Width must be specified.

- Select 'Set Data' from the 'Character' menu.



- Enter the code for the character position in the font. This may be entered in the form of a keyboard character (e.g. a, S, or =), or as the EBCDIC hexadecimal position in the form X'zz' where zz are two hexadecimal digits.

-
- Enter the width for the character matrix. Make this larger than the final width of the character, because this controls the width of the image selection box in the next step, and it is much easier to select the correct image data if the box is bigger. You can reduce the width value after the image data is selected.
 - Optionally you can enter a Baseline value for the character. If you leave this blank, no baseline indicator will be shown on the character display. Normally you should set this value once and leave it the same for all characters, so that you can line them up correctly in the vertical direction.
 - Select the 'OK' button.

You can change the Character Data at any time in the character formation process. You cannot select image data for the first time until you have specified a character code and width. After the character image is selected, however, you may change all the above values. When a character image is saved into the font, FontView uses the last values you specified to dictate what is saved and where it goes. By changing the character code between saves, you can put the same character image in several different font positions.

As soon as you select the 'OK' button above, the Title bar at the top of the window changes to indicate the current character being worked on.

Selecting the Character Image

The next step is to indicate to the system what part of the graphic image displayed on the screen should be selected to form the currently-selected character.

- Use the scroll bars to position the graphic image in the window so that the section containing the shape of the character is completely visible.
- Select 'Choose Image' from the 'Character' menu.
- Put the mouse pointer in the image area and press and hold down the left mouse button. A rectangle the size of the character will appear in place of the mouse cursor.

-
- Move the rectangle with the mouse until it encloses the section of the graphic image that you want to extract for this character. Then release the mouse button.

The image enclosed by the rectangle when the mouse button is released will be shown greatly enlarged in the window, replacing the original graphic image display. Now the extracted character may be adjusted before being saved into the font.

If you make a mistake and do not extract what you wanted, select 'Choose Image' from the 'Character' menu again and the original graphic image display will reappear to allow another selection.

If you move the rectangle out of the main window area when dragging it into position, it will disappear, and you will not be able to get it back by pressing the left mouse button inside the window area. To get it back, select 'Choose Image' again from the 'Character' menu.

If you want to put the entire graphic image into the specified character position, choose 'Select Whole Image' instead of 'Choose Image' from the 'Character' menu. This automatically copies all the graphic to the character and makes it as wide as necessary (up to 4096 dots). The character will be truncated vertically if the graphic is taller than the font height, of course.

Having selected the character from the graphic image, the character pattern should now be displayed in an enlarged grid display with a set of arrow buttons (the ToolBox) to the left of it. Before saving the character into the font, it will probably need editing. See Section 3 - Editing Characters.

7

Saving the Font to Disk

Fonts may be saved in one of two formats. You can save in the Scitex 'DijiComp™' format, which is what Scitex refers to as a 'Run-Length' file, or you can save directly to a MailView™ / MailForm™ Font Library in the MailView format.

Saving in Scitex Format

To save the completed font to a disk file, select 'Save' from the 'Font' menu. If the font is not a new font that we created in Section 1, the file will be saved immediately, replacing the original font file. If the font is a new one, the 'Save As' dialog box will appear, allowing you to specify a new name and directory for the font.

If you wish to save an updated font file under a new name, choose 'Save As' from the 'Font' menu and select or type in a new filename and directory.

The file is saved in the Scitex format in the character coding selected via the INI file. IBM 370 DOS Catalog records are added if the input file contained them or if you specified the IBM 370 DOS format when creating or converting the font.

Saving to a MailView Library

To save the font directly to a MailView™ / MailForm™ library, select 'Save to Library' from the 'File' menu. FontView™ automatically generates the four rotation files MailView needs, so no subsequent font conversion is necessary. If you are using MailView in conjunction with DijiComp, you must also save the font in Scitex format and upload it to the mainframe library to ensure that DijiComp has access to the same font.



8

The FontView INI File

Many FontView™ options can be specified and controlled through a 'fontview.ini' file. A default version of this file is loaded into your Windows directory (such as C:\WINDOWS) at installation. The INI file has the following format:

- The file is a standard ASCII text file — you can edit it with Windows Notepad.
- Comments in the file begin with the ';' character which indicates that the rest of the line is a comment.
- Major sections of the file are headed by words enclosed in square brackets, such as:

```
[Input Options]
```

Do not change these lines — the program expects to see them in the file.

- Following each bracketed heading line for a section are a series of lines specifying options that can be set within each section category. These generally have the form:

```
OptionName=Value
```

where OptionName is the name of an option that FontView recognizes (and which therefore must not be changed), and Value is one of a limited number of possible settings for that option.

Input Options

The only option available at present is:

```
DefaultInputPath=
```

This allows you to specify the directory that FontView™ should initially start in when opening a Font File. For example:

```
DefaultInputPath=D:\FONTLIB
```

The "path" should not end with a backslash character (\).

Output Options

There are several options in this category, most of which apply to fonts saved in the DijiComp™ format. The options are:

Keyword	Parameter Choices and Explanation
CRLF=	'Yes' or 'No' — Should FontView™ include return and line feed characters in the output font file? DijiComp™ does not require them, but if you wish to view the file with a text editor, they are helpful.
CharacterCode=	'ASCII' or 'EBCDIC' — Specifies what character coding should be used in the font file. Again, FontView™ does not care and DijiComp can also handle both. ASCII files can, of course, be converted when uploaded to the mainframe. If you plan to view the files on the mainframe, specify EBCDIC or convert them when uploading.
IBMDOSHeaders=	'Yes' or 'No' — If your mainframe uses the IBM DOS operating system, you should specify 'Yes' which causes FontView™ to add CATALS, BKEND and /* statements to the file to simplify cataloging to the IBM Source Statement library for DijiComp™. Otherwise choose 'No'.
SpacesToAtSign=	'Yes' or 'No' — Specifies conversion of all space characters in the file to EBCDIC spaces (@ in ASCII). Set 'Yes' ONLY if you have set 'CharacterCode' to ASCII. This option resolved an old DijiComp™ problem, which your version may not have.
ScitexInstallationNumber=	3-digit number (beginning with 8) Old versions of DijiComp™ would only work with fonts having a 'secret' Scitex code which was keyed to the 'installation number' that Scitex assigned to each customer.

Current versions (8.03 up) of DijiComp™ do not have this restriction. If you are using an old version, you must find out what your installation number is and enter it here or the fonts will not work. Otherwise enter 0 (zero).

DefaultOutputPath=
path to directory for saving fonts.
Enter the path in the same manner as for
the Input Path above.

TrueType Conversion Options

The only options that can be specified in this section are Font Map definitions. Font Maps specify what characters FontView™ should extract from the Windows™ Font when converting, and where it should put those characters in the resulting Scitex font.

The first line of the map section - [TrueType Conversion] - should not be changed and should be before any lines defining conversion maps. The first line of a conversion map is one that reads:

Map=name

where 'name' can be any name you want to identify the map

The remaining lines specify how the Windows font characters are to be placed in the Scitex font. They have the format:

xx=ddd[ddd ... ddd]

where:

xx is a Scitex font position - in EBCDIC HEX. (e.g. C1 is the 'A' position)

= is the equals sign

ddd is the DECIMAL ASCII number of the character in the Windows font

[ddd ... ddd] is optional, and means that several more Windows characters may be specified on the same line, to be placed in xx+1, xx+2 etc. positions. Each 'ddd' may be two or three

decimal digits and there must be a space between one 'ddd' and the next one on the same line.

FontView continues reading lines from the file to construct the map until it gets another 'Map' line or comes to the end of the INI file section.

Examples:

```
4a=162           puts the Windows cent sign into Hex 4a
                  location.
c1=65 66 67 68 69 puts A B C D E into Hex locations
                  C1,C2,C3,C4,C5.
```

To find out what characters are in any Windows font, and where they are, you can use the 'Character Map' applet in the 'Accessories' group. If you have a program that will give you a character set printout - such as FontMinder - that's even better.

In FontView™, when you start the program, it automatically reads the 'fontview.ini' file and looks for a map called 'default'. If it finds one, it sets up the TrueType conversion table to use this definition. (If not, it has a built-in default which is a U.S. standard layout). If you have a standard font layout in your organization which is different than the U.S. standard, you can rename the 'default' map to 'USA' and change your map to 'default'. This will make FontView load your map when it starts up.

To change to a different map, choose 'Preferences | Font Map' from the menu bar and a dialog box will appear with a list of all the map names. Click on the name of the map you want (it will be colored to show it is selected) then click the OK button. You must do this anytime BEFORE doing the TrueType conversion which is to use this map.

Specimen Print Options

These options are used to change the text printed on the Font Specimen page. The INI File section is headed [Specimen Print]. The options are:

Keyword	Parameter Choices and Explanation
---------	-----------------------------------

CompanyName= title. Any title you want to print at the top left of each font page.

SampleLine1= text. In the center section of each page, FontView™ prints up to three lines of text in the specimen font. The default standard reads "The quick brown fox jumps over the lazy dog", first in all capitals, then in lowercase, followed by a third line showing numbers and punctuation. You can substitute your own text for each of lines 1, 2 or 3 by entering the text on these option lines.

SampleLine2= text. Similar to above for the other lines.
SampleLine3=

The following items may be used to suppress any of the information items in the top section of the specimen page:

Keyword

CodeName=
Resolution=
ApproxPointSize=
MatrixHeight=
Baseline=
BuiltinLineSpace=
Description=
SimilarTo=
CharacterWidth=
FullSpaceWidth=
NumericCharacterWidth=
CapitalsHeight=
StandardAddlILS=

Each of the above causes suppression of the line that reads the same as the keyword when the word 'No' is present on the right side of the '=' sign.

If you want to suppress all the items, you can, instead of entering all of the above lines, enter only the following line:

AllData=No

This line suppresses all the data items. You can then follow that

line with lines enabling any items you do want printed. Thus, to print only the "Similar To" and "Description" items, you would add the following lines:

```
AllData=No  
SimilarTo=Yes  
Description=Yes
```

Note that in the above case, the "Similar To" and/or "Description" items would only print if you have entered the necessary data in the "Font Information" dialog box.

9

Error Messages

All error and warning messages that FontView produces are generated in a standard MS Windows message box.

Opening a Font File

Bad input character = Z - Char code XX

This message indicates an error in the Scitex font. Try transferring it again from the mainframe.

Error - file xxxxxxxx not found

This message should not occur, since it is detected in opening the file, and the existence of the file is checked in the "Open File" dialog box. Please report it.

Error reading input file xxxxxxxx

An I/O error was encountered when attempting to read the font file. Check the file using diagnostic utility software and try again.

File Format Error - Font Height is zero dots

This error often occurs if the input font file is in the wrong format, or if it is the wrong file. The Font Height data item in the font header record must never be zero.

File Format Error - Duplicate XX Characters

Two definitions for the same character were found in the input file. This is illegal, and may indicate that this is the wrong file or that the format is incorrect. XX is the EBCDIC hexadecimal value of the character.

File Error - Zero data length - Character XX

The pattern data area of the character record is blank. There should always be at least a '/' in the data area. XX is the EBCDIC hexadecimal value of the character.

File Format Error - Character XX

There was no '/' character at the end of the character pattern data and the next record is not a continuation of the pattern. Something is therefore missing.

Format Error - repeat code as first row
- Char code XX

This message indicates an error in the construction of the Scitex font file. Try transferring it again from the mainframe system.

Insufficient memory to continue

FontView ran out of free memory space attempting to load the font. Close any other application windows and try again.

Memory Allocation Failed - Font Not Loaded

FontView was unable to get enough free memory to read in the font data. Try closing any other applications currently running and try again.

Warning - End of File Missing

The record that signals the end of the font data was not found before the physical end of the data in the file. The font was loaded successfully, but it is possible that something was lost.

Creating a New Font

Font xxxxxxxx has changed - Do you want to save it?

If you attempt to create a new font and have not saved the previous font (xxxxxxx), which has been changed by saving one or more characters into it, this message will appear as a reminder. The "YES", "NO" and "CANCEL" buttons allow you to save the previous file before proceeding with the Create, to skip the save and continue with the Create, or to cancel the Create command.

Invalid Font Name - Must be 8 Alphanumerics

Font names for Scitex use must be exactly 8 characters long and can consist only of uppercase alphabets and/or numbers.

Invalid Font Height

The Font Height must be specified and must be greater than zero dots.

Invalid Space Width

The Space Width must be specified and must be greater than zero dots.

Editing Characters

Cannot Create Raster Map
Cannot Create Bitmap

These messages indicate that there is a memory shortage. Try closing any other application windows. The last character pattern change will not be recorded.

Character Position already Occupied
Substitute New Character Image?

This message is generated when the user attempts to save a character into a position that already contains a character image. The "YES" and "NO" buttons allow the user to replace

the original character or cancel the save operation respectively. This message is also given when the user moves a character with the 'drag and drop' feature into an already-occupied font position.

Last Character has not been saved
Save it into the Font?

When a new character is selected for editing and the user did not save the previously-edited character, this message is shown. Click on the "YES" button to save the previous character image.

Memory Allocation Error - No Width Change

Not enough free memory is available to allow widening the character image. Close other applications and try again.

Memory Allocation Failed - Cannot Save Character

Not enough free memory is available to save the character into the font. Close any other application windows and try again.

Editing the Font

Cannot Create BitBuffer
Cannot Create Bitmap

These messages are shown when FontView does not have adequate free memory when trying to display the font. Try closing any other open applications.

Error Getting Character Data - Not Pasted

In attempting to Paste a character from the Clipboard, an error occurred. This message should not appear - please report it. Put the character into the Clipboard again and retry.

Invalid Baseline

The baseline value must be zero or greater but less than 1000.

Invalid Font Name - Must be 8 Alphanumerics

Scitex font names must be exactly eight characters long and must contain only letters and numbers.

Invalid Font Height

The font height must be greater than zero dots and less than 1000 dots.

Invalid Space Width

The space character must be greater than zero dots wide and less than 4096 dots wide.

Invalid Move-Upward Amount

Invalid Move-Downward Amount

The font characters can be moved up or down by more than zero dot rows and less than the height of the font.

Some Pattern Dots will be Lost - OK to Move Up?

Some Pattern Dots will be Lost - OK to Move Down?

The user has requested a font-wide move of all characters up or down. The dot rows shifted out of the top (or bottom) of the matrix on some characters contain black pattern dots which will be lost if the move operation continues. The user can continue the move by clicking on the "YES" button or abort it with the "NO" button.

Memory Allocation Failed - Cannot Cut/Copy Character

In attempting to Cut or Copy a character pattern to the Clipboard, FontView ran out of free memory. Close any other open applications and try again.

Memory Shortage Font Height Change

While attempting to change the Font Height, FontView ran out of free memory. The Font Height was not changed. Close any other open applications and try again.

Memory Shortage Font Move

While attempting to move all characters in the font up or down in the matrix, FontView ran out of free memory. The Font was not changed. Close any other open applications and try again.

Memory Shortage - Cannot Cut/Copy

In attempting to Cut or Copy a character pattern to the Clipboard, FontView ran out of free memory. Close any other open applications and try again.

Memory Shortage - Cannot Paste

In attempting to Paste a character pattern from the Clipboard, FontView ran out of free memory. Close any other open applications and try again.

No Characters in Clipboard

The user asked to Paste a Character and there is no FontView character data in the ClipBoard.

Converting TrueType Fonts

Cannot Create Bitmap

This message indicates a memory shortage. The conversion is not completed. Try closing any other open applications.

Invalid Font Name - Must be 8 Alphanumerics

Scitex font names must be exactly eight characters long and must contain only letters and numbers.

Converting AFP-format Fonts

Coded Font File (Xnnnnnnn) must be specified

The file selected is not an AFP Coded Font file.

Coded Font Index missing from Coded Font file

This error should never happen. It is a serious format problem with the AFP font and the conversion cannot be done.

Error reading file xxxxxxxx

Conversion will be terminated

An error was received when reading the file from disk. Try the conversion again. If the error persists, transfer the file again from the mainframe system.

File xxxxxxxx not found

The file xxxxxxxx is required to complete the conversion but is not present in the same directory on the PC disk as the Coded Font file. Perhaps it was not transferred.

Font Code Position XX

Character xxxxxxxx not in Font Index

The Code Page File (T-file) specifies by name what characters should be in what position of the font. FontView could not find the character xxxxxxxx in the Font Index structure of the Font Character Set file (C-file). This may not be an error, and FontView continues with the conversion without this character.

Font Structure Error - Code Position

This message indicates a format error in the AFP Coded Font File. It may be due to an error in the transfer from the mainframe, or perhaps the transfer was done with the wrong parameters. The file must not be converted to ASCII when copied from the mainframe.

Font Structure Error - structure XX

This also indicates a format error in the AFP font. Check the transfer parameters.

Font Structure Error - structure XX missing

One of the component data structures in the Font Character Set file is missing. This is a serious format problem with the AFP font. It might possibly be caused by a transfer error, but is more likely a problem with the software that generated the font.

Format Error in Coded Font File xxxxxxxx

A different kind of error in the format of the AFP font. Again, it could be caused by a bad transfer from the mainframe.

Format Error in Font File

Either the Code Page File (T-file) or the Font Character Set File (C-file) has a format error. Transfer them both again from the mainframe.

Invalid Font Name - Must be 8 Alphanumerics

Scitex font names must be exactly eight characters long and must contain only letters and numbers.

Some Font Data missing - terminating conversion

This message usually follows one of the above messages and indicates that the conversion has been aborted because of bad input.

Opening an Image File

Cannot Create Bitmap

An error occurred trying to find the memory area to contain the image from the PCX file. There may be a memory shortage - close other application windows and try again.

Cannot open xxxxxxxx

This message should not occur, since the existence of the file is checked earlier in the "Open File" dialog box. Please report it.

Error Reading Header of File xxxxxxxx

An I/O error was encountered while attempting to read the PCX file header. Use a diagnostic utility to check the file and try opening it again.

Error Reading PCX File

An I/O error was encountered during file input. Use a diagnostic utility program to check the file and try again.

File xxxxxxxx is not Monochrome Image

FontView can only read black-and-white PCX files. This file is a color PCX file or is in the wrong format.

Image too wide for FontView

FontView can handle PCX images up to 8,000 dots wide. If this image appears, the PCX image is too large. Try reading it into a picture-editing program such as Windows Paint, copying parts to the Clipboard and importing the pieces into FontView that way.

Pasting an Image from the Clipboard

Cannot Create Bitmap

An error occurred trying to find the memory to contain the image from the Clipboard. There may be a memory shortage - close other application windows and try again.

Error Getting Bitmap Handle - No Image Pasted

This message should not occur - please report it.

Nothing to Paste from Clipboard

There is no bitmap image in the Clipboard.

Specifying Character Data

Invalid Baseline Value

If specified, the Baseline Value must be less than or equal to the Font Height.

Invalid Character Code

Character codes must either be provided as a single keyboard character or as an EBCDIC Hexadecimal value. The Hex value must be entered as X'zz' where zz are two hexadecimal digits - i.e. 0-9,A-F.

Invalid Character Width

The Character Width must be entered and must be greater than zero.

Displaying a Character Image

Cannot Create Raster Map

Not enough free memory is available to do the character display function. Close any other application windows and try again.

Cannot Create Bitmap

See above.

Saving the Font File

Cannot create output file

An error was encountered when attempting to create a temporary work file for output of the font data. Possibly the directory or the disk is full.

Could not Replace Original File - Save Failed

FontView saves new data to disk in a temporary work file which must complete successfully before the original font file is deleted and the new file renamed to the original file name. This error indicates FontView could not delete the original font file (possibly it is marked read-only). The new font was saved successfully to disk under the name "FVTEMP\$\$.\$\$\$".

Write Error Saving Output

An I/O error occurred trying to write out the new font file. The original font file is unaffected. Try saving again to a different drive.

a

Appendix A - Font Guidelines

The following is general information and recommendations on font creation and design with specific information about fonts for Scitex ink-jet systems.

Font Height

The Font Height specifies the vertical dimension of the Character Matrix for all characters in the font. Font sizes, in typesetting terms, are quite misleading in that the same size font in two different typefaces can have different visible character heights. Normally, the font height will be a little more than the distance between the top of the capital letters and the bottom of the descenders of lowercase letters (g p q etc). In larger sizes, the capital letters with round shapes (O Q G etc) may be taller than the ones with square shapes (E F T etc) to make them visually the same size. The font height must be big enough to allow for this extra height. Generally, if you are assembling a 72 point font, your font height should be one inch (120 dots for the 3000 and lower, 240 dots for the 3500).

Baseline

The Baseline is an imaginary horizontal line on which the bottom of the capital letters rest. The lowercase letters that do not have descenders also sit on this line. FontView allows you to specify a value for the Baseline to help you adjust the character images so that they line up correctly. Again, as was mentioned above, in larger point sizes, the rounded shaped characters (C G o e etc) are larger than the square ones, and may require positioning slightly (one or two dots) below the baseline in order to line up properly.

When copying a font from another source using FontView, capture the image for the capital A first, and adjust the baseline setting using that character. You may have to experiment a bit with the image of a rounded character (say C) to ensure that there is enough space above the top of the A in the matrix to accommodate the extra height of the rounded characters.

Character Widths

The width of characters in proportionally-spaced fonts is critical to

getting the font to look good in use. The amount of space at the left and right side of the character image is also important to maintain an even look to the text. This is important for readability. The general rule is that characters that have a rounded shape on the sides have less space than those that have a flat or square shape. For example, a 'p' would have more space on the left than the right side, whereas a 'd' would have more on the right than the left. This is done in an attempt to get the visual spacing between characters to look the same, regardless of which characters are placed next to each other in the printed line.

If you are copying a font from some other source to make a new imager font with FontView, you can preserve the width information for use in the imager font if you set up the original image correctly. When you have the original character images set up, put an underscore character between each pair of letters and put one at the left and right end of each line. The underscore is one character in the font that should have no intercharacter space (or side-bearing as it sometimes known), so that multiple underscores in a row create a continuous line. With an underscore before and after each character, you can see where the edges of the character matrix are in the original image, and you can adjust the character image and width with FontView to duplicate the spacing in the new font. You can even use this method to determine the width of the standard space character.

Kerning

Most type systems, both outline and bitmap-based, allow parts of one character pattern to intrude horizontally into the area of an adjacent character. Figure 10 shows an italic 'f' which is kerned on both sides with the characters preceding and following it. Scitex imagers, at the present time, cannot perform kerning, which means that no part of a character pattern can be



Figure 10

vertically above or below the pattern of an adjacent character. To convert the italic 'f' in Figure 10 to a Scitex font, you would have to add width to the leading and trailing sides until the whole shape of the 'f' was contained in its width. This would end up spacing the character out too much (see Figure 11) and you might then want to modify the shape of the character to make it

narrower again.

There is not a completely acceptable solution to the problem of converting kerned characters to a printing system that does not allow kerning. Any compromise will change the appearance of the font. FontView provides automatic functions to add the necessary space to eliminate kerning and/or to distort the patterns horizontally to reduce the resulting character widths to approach the original spacing. We suggest you experiment with these options. The best way to deal with the problem is to avoid using fonts that have any significant kerning - particularly italic and script fonts.



Figure 11

Original Image Resolution

To make a character from an original piece of artwork, a digital image must be made using a scanner and appropriate scanner software. The problem that may arise is scanner resolution versus imager resolution. As has been stated before, the imagers print at 120 dots per inch (or 240 dpi for the 3500/3600), and while most scanners have a choice of scan resolutions, 120 dpi may not be available on some units.

If a 120 dpi resolution setting is not available and you have no software that will scale the image as needed, there are two choices:

1. You can use a different resolution (100 dpi or 150 dpi for example, with the consequence that the image will be larger or smaller when it is imaged. The following table shows the percentage that an ink-jet image will be versus the original for several different scanner resolutions:

Scan Resolution	Size at 120dpi	Size at 240dpi
75dpi	62.5%	31.25%
100dpi	83.33%	41.67%
120dpi	100%	50%
150dpi	125%	62.5%
200dpi	166.67%	83.33%
240dpi	200%	100%
300dpi	250%	125%

2. You can get the original image scaled photographically larger or smaller so that the copy that you scan with the 'wrong' resolution will create the correct size image at 120dpi. For example, if you had a 1" high image and only had 150dpi scan resolution available, photographically (or xerographically) scaling that image to 0.8" high and then scanning at 150dpi would produce a 1" image at 120dpi.

Most scanned input will require care in making sure the image is scanned perfectly square to the scanner and will require some 'clean-up' in FontView.

Caution

Typeface designs are often copyrighted and copying them for a use other than the manufacturer intended could possibly violate that copyright. It is generally the name of the face that is most carefully protected, which is why you may see a lot of fonts that look similar to each other and have similar but not identical names.

Index

AFP 1, 19, 23-25, 45, 46
ASCII 6, 24, 33-35, 46
baseline 9, 13, 29, 37, 43, 48, 51
Bounded-Box 23
capital letters 51
character . . . 1, 7-11, 13-17, 19, 20, 22-25, 27-31, 33-36, 39-44, 46-49, 51-53
character code 28, 29, 49
character shapes 19, 20, 25
character width 7, 10, 28, 49
coded font file 45, 46
convert 1, 19, 23-25, 34, 52
copy 15, 16, 20, 28, 44, 54
create 1, 5-8, 21, 28, 41, 42, 45, 47-49, 52, 54
cut 1, 15, 16, 44
EBCDIC 1, 6, 8, 28, 34, 35, 39, 40, 49
edit 7, 24, 33
font 1, 5-10, 13-17, 19-25, 27-31, 33-53
font display 6, 9, 15, 16, 23, 24
font height 1, 7, 13, 14, 22, 30, 39, 41, 43, 44, 48, 51
height 1, 7, 13, 14, 22, 23, 30, 39, 41, 43, 44, 48, 51
IBM 370 DOS 8, 31
image 8-10, 17, 27-30, 41, 42, 47-49, 51-54
imager 7, 52, 53
italic 20, 21, 23, 52, 53
kerning 52, 53
lowercase 23, 37, 51
matrix 1, 9, 10, 23, 27-29, 43, 44, 51, 52
moving characters 15
open 5, 7, 14, 16, 27, 28, 39, 42, 44, 45, 47
paste 15, 16, 27, 28, 42, 44, 48
pattern 9, 10, 13, 16, 20, 27, 30, 40, 41, 43, 44, 52
PCX 27, 28, 47, 48
point 15, 16, 19, 23, 51
resolution 14, 19, 23, 37, 53, 54
save 7, 10, 21, 24, 31, 41, 42, 49
scanner 1, 27, 28, 53, 54
Scitex . 2, 1, 5, 7, 19, 20, 23, 24, 31, 34, 35, 39-41, 43, 45, 47, 51, 52
space width 13, 41, 43

TrueType	2, 19, 23, 35, 36, 45
Unbounded-Box	23
width	1, 7-10, 13, 20, 21, 28, 29, 41-43, 49, 51, 52
Windows Clipboard	15, 27, 28