YEAH, YEAH, I GOTCHA FONTS RIGHT HERE.

ARTS & LETTERS®

BOSSFONT
MANAGER

www.arts-letters.com

USER'S GUIDE

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Chapter 1: Introduction

The BOSS Font Manager is a utility for managing TrueType® and PostScript® Type 1 fonts on your computer system under Windows 95/98/ME/NT or 2000.

Using the BOSS Font Manager you can view or preview all of your fonts at any size all the way up to 99 points. You can even preview uninstalled fonts directly from the font files on your hard drive, any network drive or CD-ROM. You can also print font specimen sheets. Make a catalog of all your fonts, or print out a grid, showing every character in each font (great for selecting the right key combinations to use for printing dingbat or wingding-type fonts).

Where Do Fonts Come From?

Many applications allow you to choose different typefaces with which to print documents (e.g., Windows Write, Word, PageMaker, *Arts & Letters* EXPRESS). Where do these fonts come from? Some, which ship with Windows and are called TrueType®, are in the Windows/System directory. Others, which can be added by the user, are known as Type 1, or PostScript fonts. These fonts reside in the PSfonts directory, and in a subdirectory of PSfonts, PFM.

Both types of fonts reside on your hard drive, but they are not necessarily available for use. They must be "installed," a process that lists them in your WIN.INI file, the file that Windows uses to configure its appearance and capabilities. A partial listing of the TrueType and PostScript fonts in your WIN.INI is shown below.

Fortunately, you needn't worry about making these entries directly into the WIN.INI. The BOSS Font Manager installs and uninstalls fonts on the fly, from any directory accessible from your system, and creates the correct entries in your WIN.INI automatically.

```
Arial (TrueType)=ARIAL.FOT

Arial Bold (TrueType)=ARIALBD.FOT

Arial Bold Italic (TrueType)=ARIALBI.FOT

Arial Italic (TrueType)=ARIALI.FOT

Times New Roman (TrueType)=TIMES.FOT

Times New Roman Bold (TrueType)=TIMESBD.FOT

Times New Roman Bold Italic (TrueType)=TIMESBI.FOT

Times New Roman Italic (TrueType)=TIMESI.FOT

Wingdings (TrueType)=WINGDING.FOT
```

```
[PostScript,LPT1]

ATM=placeholder

softfonts=91

softfont1=c:\psfonts\pfm\bym_____.pfm,c:\psfonts\bym_____.pfb

softfont2=c:\psfonts\pfm\byw_____.pfm,c:\psfonts\byw_____.pfb

softfont3=c:\psfonts\pfm\bywi____.pfm,c:\psfonts\bywi____.pfb

softfont4=c:\psfonts\pfm\byb_____.pfm,c:\psfonts\byb_____.pfb

softfont5=c:\psfonts\pfm\bybi____.pfm,c:\psfonts\bybi____.pfb

softfont6=c:\psfonts\pfm\byi_____.pfm,c:\psfonts\byi_____.pfb
```

What You Need to Know About Fonts and Your Computer

Fonts are a critical aspect of your computer system as they govern the display and printing of most of the information you produce on your computer. Below are a few important aspects of managing the fonts on your system.

About Overloading Your System: The most common cause of problems related to fonts is overloading your system with too many fonts. One of the first indications that you have overloaded your system is the message "The files UNIN.TTR and UNIB.TTR could not be installed" that appears when you start the Font Manager. Either too many fonts have been installed or the TrueType Rasterizer Engine has stopped working for one of many reasons explained below.

Windows limits the storage allocated to save font information thereby affecting the number of fonts your system can manage before it fails. The total storage required is the sum of all the font names plus the characters that make up the complete path name (including the file name). The total cannot exceed 64, which represents approximately 800 font files. If you, or some software that you installed, exceed this limit, you must fix your Windows font system. Follow the instructions below under *Font System Problems/Failures*.

To help prevent this problem, the Font Manager will alert you if you attempt to install additional fonts and the number of fonts already installed on your system exceeds 700.

Adobe Type Manager: To install, manage and view PostScript fonts using the BOSS Font Manager, you must have ATM (Adobe Type Manager) version 2.5 or greater installed on your system.

When installing PostScript font files, be advised that Adobe Type Manager uses "c:\psfonts" as the location for your ".pfb" files and "c:\psfonts\pfm" for the location of your ".pfm" files.

These paths are used as the default paths by the BOSS Font Manager. However, both the .pfb files and the .pfm files can be saved in the same directory, for example C:\postscript. Keeping the .pfb and corresponding .pfm files together is preferred by many users.

When working with PostScript fonts, the path information for the .pfb and .pfm is transparent to the user and the BOSS Font Manager uses whatever paths were specified in ATM (or ATM's default paths). You can permanently change the PFM/PBM folders using the Adobe Type Manager. The BOSS Font Manager will recognize the changes made in ATM and use them automatically.

CD-ROM Drives: If you print specimen sheets directly from CD's (and you have an older, slow-speed CD-ROM drive), the speed of the printing process will be adversely affected by the data transfer rate. If you have room, you might consider moving your font files to a temporary directory on your hard disk, print them and delete the files.

System Fonts: System Fonts cannot be uninstalled nor can they be added to the Print Specimen list of fonts to be printed.

Video Cards: If you are using a video accelerator board and experience problems running Font Manager, or if Font Manager won't run at all then the source of the trouble may be your *video driver!* Try another driver. Maybe there's a more recent release from the manufacturer, or you can try any of Microsoft's drivers that come free with every copy of Windows. There is an interaction between the memory address of video drivers and printer drivers, so if you experience trouble you will need to adjust either one or both of your drivers.

Publications that may be relevant include PSS ID number Q115596 entitled "Problems with TrueType Fonts and Diamond Video Drivers" and PSS ID number Q85286 entitled "Checklist for

Troubleshooting TrueType Font Problems". Each of these papers should be available from Microsoft at no charge.

Windows NT and 2000 Permissions: To install and uninstall fonts, you must have *write permissions* and *delete permissions* for "INI" files and the Font Section of the Registry. Your system administrator can add them to your login user account (if you do not already have permission).

While you cannot install fonts without the appropriate permissions, you can view and print fonts using the Font Manager in any of the three groups (levels of permissions) — Administrator, Power Users and Users. The only exception is Users under Windows 2000.

Windows Print Spooler: One of the most common problems occurs when users try to print too many font specimen sheets with the Windows Print Spooler turned on. Turn the print spooler off to improve the speed of printing.

To turn the print spooler off, click on the *Windows Start Menu* button, then select *Settings*, then *Printers*. Right-click on your printer's icon, then select *Properties*. Click on the *Details* tab, and then click on the *Spool Settings* button. Select the *Print Directly To Printer* option, then click on the *OK* button. This advice also applies for *any other* 3rd-party print spooling software.

The Font Manager temporarily installs fonts that need to be printed, prints them, and un-installs them. Print spoolers run slower than the Font Manager. By the time the spooler starts printing the page, the fonts for that page have already been uninstalled resulting in duplicate specimen pages of one font.

If your printer driver offers the option, select to print "TrueType as graphics". This will let you print many more fonts on a page. In addition, fonts printed using this are sharper. It is worth the time to turn this option on. Most printer drivers have this option. Moreover, if your driver has the option to print either "Raster" or "Vector" graphics then select "Raster" graphics for the best possible reproductions of your fonts.

There is a documented Windows problem with certain "shareware" fonts that will crash the TrueType rasterizer engine and will require you to restart Windows under certain circumstances. *This is not a Font Manager problem!* This problem is fully documented in Microsoft's PSS ID number Q83448 errata sheet entitled "Error Message: Invalid TrueType Font Detected". The only solution for this behavior is to use quality fonts.

In some instances, some fonts will print small squares instead of characters or not all characters will print in all point sizes. Again, this is a Microsoft TrueType problem and is described in their publication PSS ID number Q94715 entitled "Cannot Print Ornate, Complex TrueType Fonts". In any event, Font Manager is doing its job by printing specimen sheets that reveal these types of problems.

Technical Support:

In the event that you need technical support or have questions about this product, please visit our web site at **www.arts-letters.com** or e-mail your request for technical support to **support@arts-letters.com.**

Chapter 2: Font Manager

Font Manager Interface

The Font Manager interface is divided into three primary panels: Information, ViewPort, and Font Selection.

At the top of the interface, you'll see an Information Panel. <u>The Information Panel</u> displays the full name of the font selected, if it is proportional or fixed space, if it is TrueType® or PostScript®, if it is installed or not, and the full pathname (location) of the font file.

The largest panel is the ViewPort. <u>The ViewPort Panel</u> shows a sample of the selected font. The first time the Font Manager is run, one of your fonts will be displayed in 48 points. ("points" are a unit of measure used by the typography industry - 72 points equal one inch).

To the right of the ViewPort, is the <u>Font Selection Panel</u>. To select an installed font just click on the first drop-down list box and pick one of the font names. TrueType and PostScript fonts are easily identified by their respective icons. A sample of the font you selected is immediately displayed in the ViewPort. The Specify Font Folder button is used to select a directory containing font files you may wish to install.

At the bottom of the screen, <u>The Specimen Panel</u> lets you specify either the complete character set or a specimen line to be displayed in the ViewPort. <u>The Justify Panel</u> lets you specify whether the display is Left, Right or Center Justified. <u>The Font Size Panel</u> lets you select the size of the characters displayed.

To change the size of the font displayed in the ViewPort, use the adjustment knob in <u>The Font Size Panel</u>. To "turn the knob" you click on it and hold down the mouse button as you move your hand in a circle. While holding down the mouse button, you can get finer control by moving your hand in larger circles. The larger the imaginary circle is, the finer the point size adjustment. You can also just click on a point on the knob, which will then jump to a point size. You can get

"close enough" to the size you want this way, and use the fine adjustment control (up-down arrows) to make one-point size adjustments.

While viewing fonts, you may encounter a corrupt font file, which causes the message <u>Font Error</u> to be displayed in the ViewPort instead of the actual font. This error can be caused by several problems, including:

> The font file itself is missing or not located where it was when the font was installed.

> The font file may not meet font specifications (poor design, corrupted data, etc.).

If the <u>Font Error</u> message is displayed, uninstall the font (if it is installed) and remove the font file from your system (using Windows Explorer).

Font Manager Preferences

To display the Preferences Panel, click on the Preferences button to reveal several options, primarily associated with printing specimen sheets. Any changes made to the Preference options are saved when you click on OK.
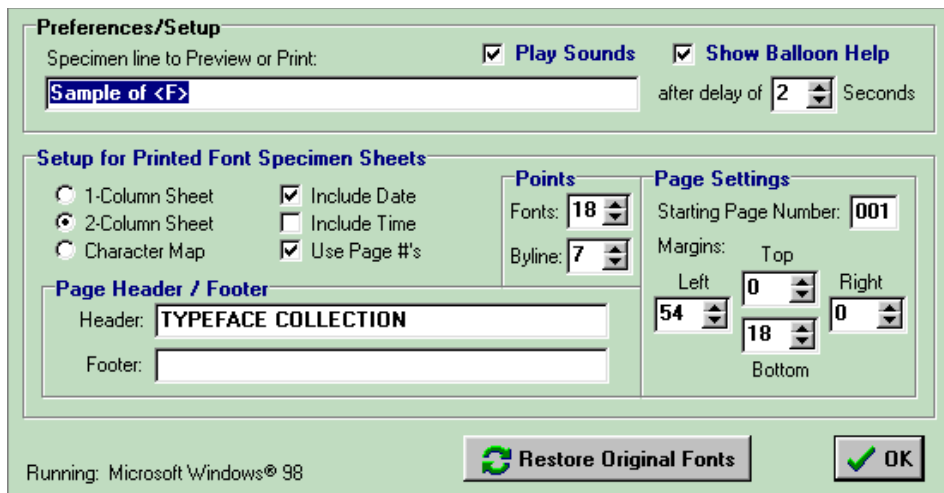
<u>The Specimen Line</u> can be changed to view or print any line of text or string of characters. The default example makes use of a special code that Font Manager interprets. To include the font name in the specimen line, use the code "<F>" (without the quote marks). The letter-F can be either upper or lower case.

<u>Play Sounds</u> lets you turn sound effects off while using the program.

<u>Show Balloon Help</u> lets you turn on/off popup help whenever the mouse is idle over a control (including this one). You can also set the seconds to delay before help is displayed.

<u>Printed Specimen Sheet Style</u> includes 1-column or 2-column (the number of fonts per sheet depends on the size of the font samples and the paper orientation), and the character map which prints a sample of every character in the font (maximum of three fonts per page). To include the date, time, or page numbers at the bottom of each sheet simply check the options you want.

<u>Font Size (Points)</u> is used to set the size of the printed font samples. The Byline size is used to set the size of the descriptive information, which is printed just below each font sample.

<u>Page Settings</u> let you set the starting page number. The starting page number is just a number - it is <u>*not*</u> the starting physical page number. Printing <u>*always*</u> begins with the first font in your print list. There are several reasons why you might want to begin printing with a page number other than "one". For example, maybe you ran out of paper or had to stop printing for another reason. In such a case, you can select just the fonts you want to begin printing with and then set the page number as the next number following the last printed page you already have.

The margins can be set to move the image around the page, as you feel appropriate. The default settings offset the page so there is a wide margin on the left for 3-hole punching.

<u>Page Header and Footer</u> lets you set whatever text you want to appear at the top and bottom of every printed page. To omit a header or footer, leave the field blank.

<u>Restore Original Fonts</u> is a button provided in the event you change your mind after installing or uninstalling fonts and want to restore the fonts to the way they were before using the Font Manager. This provision works only if you haven't physically moved your font files to another location since the first time you ran Font Manager. If you have moved your fonts, erase the files with ".BFB" extensions in your Font Manager directory, and run Font Manager again - a new image of your installed fonts will be generated automatically.

To exit Preferences, click on the OK button.

Viewing and Installing Fonts

To view the fonts already installed on your system click on the top-most drop-down menu.
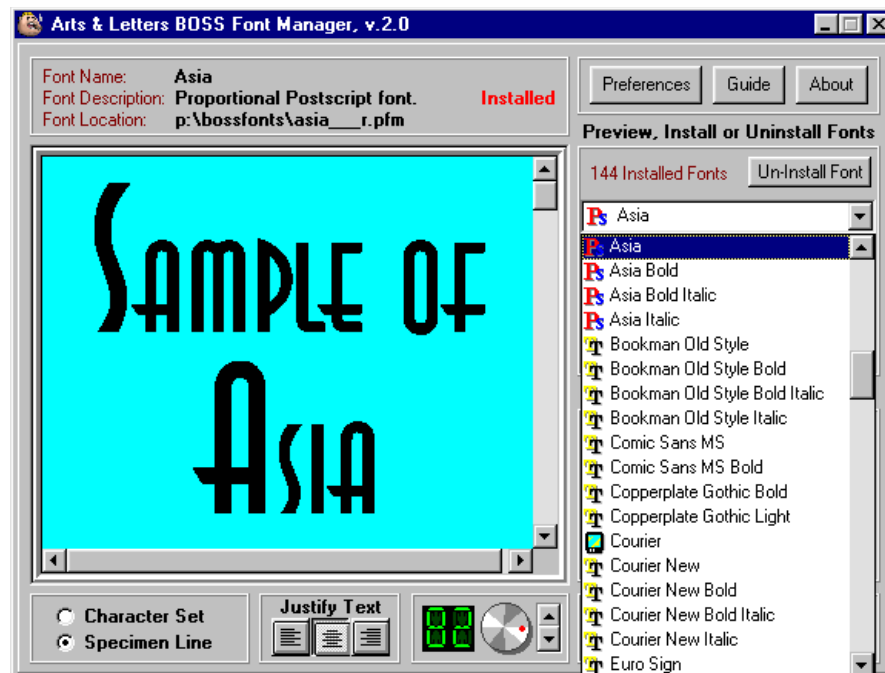
To select a font, click on any name in the list. However, *the most efficient technique for reviewing the fonts in any of the drop-down menus* is to use the arrow keys to scroll through the fonts in the list. A representation of each font will be displayed in the Viewport.

To view other fonts you may want to install on your system, click on the Specify Font Folder button located in the Control Panel at the bottom-right of the interface. Select the drive and directory containing the font files you want to review and click on OK.

Note: If you are using removable media such as floppy diskettes or CD-ROMS, you can change media *even if the Specify Font Folder dialog box is displayed.* After changing media, always double-click on the root directory so the files from the new media can be properly displayed.
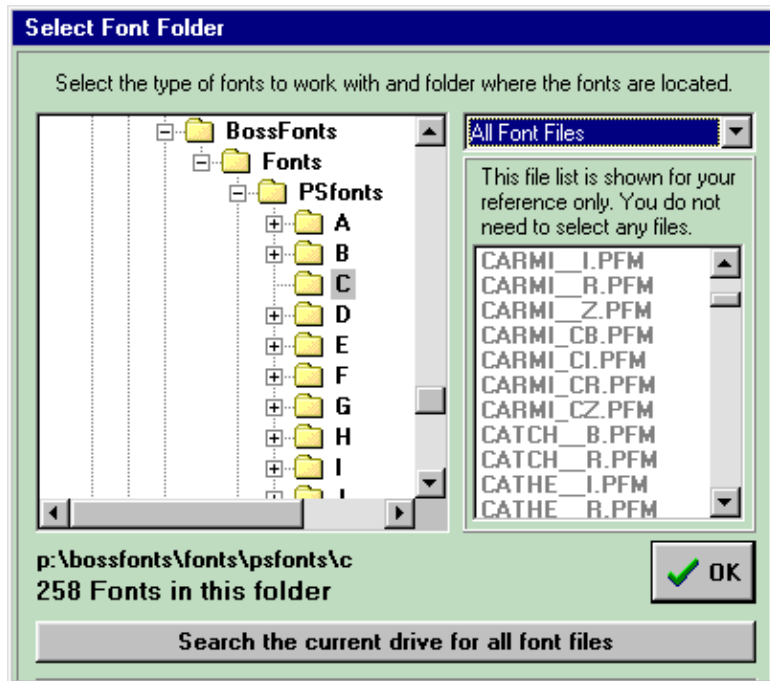
The second drop-down list box in the Font Selection Panel will now contain the font files from your selected directory. Simply click on any of the font file names to see what the font looks like. To review all the fonts in the directory, use the arrow keys to scroll quickly through the fonts in the list.

Click on the Install This Font button to install the font displayed in the ViewPort. To install all the font files click on the Install All Fonts button. The Font Manager was designed so you can even install fonts while another application (such as a word processor) is running and the other open application will know your available fonts have changed. This convenient feature works with most other applications, but some applications (those that do not follow proper Windows standards) may not know about font changes if they are already running. For these few applications, you will need to start them after you have made changes to your installed font list.

When you click on Install Font, if the font file is located on a CD-ROM, diskette or on a network drive, a Font Install Advisory Panel will be displayed. From this panel, you can specify a directory on your local hard drive where the font file will be copied or you can elect to install from removable media. If the font is installed from removable media or a network drive, the media or network drive must be available whenever you use the font. Using a font from removable media saves disk space but the media must be available at all times. If the font file is read from a network and the files are subsequently moved or unavailable, you will not be able to use the font.

Un-Installing Fonts

Select the installed font you want to uninstall by clicking on it (from the drop-down list box in the <u>Font Selection Panel</u>). Click on the <u>Un-install Font</u> button and the font is immediately uninstalled. *The font file is not deleted* from your hard drive in case you want to re-install the font in the future.

Printing Font Specimen Sheets

The drop-down list box in the <u>Fonts-To-Print Panel</u> contains a list of fonts to print. To add the displayed font (in the ViewPort) to this list simply click on the <u>Add To Print List</u> button. To add all of the fonts in either the Installed or Un-Installed list boxes, first click on the list box you want (Installed list or Font Files list) so it is highlighted then click on the <u>All To Print List</u> button. If you want to print fonts from multiple directories, first select the directory you want using the <u>Specify Font Folder</u> button then repeat the steps above. Click on the <u>Clear Print List</u> button to empty the print font list, or you can select a font from the list then click on the <u>Clear Print Item</u> button to remove it from the print list. The Font Manager will prompt you when you click on Clear Print List so that you do not accidentally delete the list.

The <u>Print Font Specimens</u> button lets you select the printer and paper orientation then begins printing your specimen sheets. Click on the <u>Cancel</u> button to stop printing before the job is finished. Before printing, you might want to check your settings in <u>Preferences</u> to make sure you have selected the correct sheet style, etc.

Font System Problems/Failures

Several provisions in the BOSS Font Manager protect your system in case of font management problems. Copies of your WIN.INI and ATM.INI files are stored in the Font Manager directory the first time Font Manager is run. This provides an automatic backup in the event that you ever need to restore your system to the way it was before using the Font Manager.

The Font Manager also makes an image of your installed fonts. If you later need to revert to the fonts that were installed before adding or deleting fonts, click on the "Preferences" button and on the "Restore Fonts" button. This procedure will not work if you have physically moved your font files to another location since the first time you ran Font Manager. If you have moved your fonts, erase the files with ".BFB" extensions in your Font Manager directory and run the Font Manager again to create a new image of your installed fonts for backup. The procedure is not available in case of the failure of Windows' Font System discussed below.

Detecting Problems

The BOSS Font Manager analyzes your Windows font system each time you start the program. If the Font Manager detects any problems with Windows' font system, an Advisory Alert Message is displayed (which refer you to the following paragraphs).

What Causes the Windows Font System to Fail?

The most common cause for this condition is over-loading your system with fonts. Windows has limits on the number of fonts a system can manage before it fails. The storage required is the total of the number of characters in the font name, plus the characters in the complete path name (including the file name) for all the installed fonts. The total cannot exceed 64K, which represents approximately 800 font files. If you, or some software that you installed, exceed this limit, you will need to fix your Windows font system.

Here's How to Fix Your Font System:

Below are two procedures for fixing your font system.

1. Create a folder off your root directory and give it a name (for example, "C:\TTF").

2. Reduce the number of TrueType font files (file names which have the extension "TTF") in your Fonts Folder by moving font files to this new folder until your Fonts Folder contains 800 or fewer font files.

3. Exit Windows, and then restart Windows again in SAFE mode. Make sure your are in SAFE mode. Do not run any software. The purpose of this procedure is to force Windows to rebuild its font data and Registry information.

4. Exit Windows again, then restart in NORMAL mode. Try the BOSS Font Manager again. If the program starts without error, your Fonts folder has been fixed.

If the above procedure does not solve the problem:

Check your Control Panel for TWEAKUI. If it is not there, load your Windows CD and right-click on the following file on the CD drive:

\Tools\Reskit\Powertoy\Tweakui.inf

Select the install option, which will place TWEAKUI in your Control Panel. If you can not find TWEAKUI, search your CD for it (or possibly do a search on the Internet).

Run TWEAKUI. Click on the Repair tab, and then click on "Repair Fonts Folder". Windows will inform you that it will re-start. After re-starting, your Fonts Folder will be repaired and you will be able to run the Font Manager.

What if All Else Fails?

One of the two methods described above should work. However, in some situations, Microsoft's TWEAKUI will not fix the Fonts Folder. If you have followed all of the above steps, try repeating them a second time. If that does not fix the Fonts Folder, contact Microsoft and ask them for an alternate solution.

Chapter 3: A Brief Look at Type

Movable Type

Movable type, developed by Johannes Gutenberg in the 15th century, has been called one of the great inventions of mankind: because of it, printed knowledge became accessible to more than just the learned few. It could be said without exaggeration that movable type is responsible for the so-called Information Age, our own age.

Not surprisingly, early type was based exclusively on handwritten characters; it mimicked the strokes of a master scribe's pen.

Black Letters

Type evolved quickly, but many typefaces still show vestiges of their handwritten origins. The most obvious vestige is the serif, which appears in more than half the typefaces in existence today. The serif replicates the mark a pen might make as it lifted from paper at the end of a stroke. In addition, many of these serif typefaces have thick and thin strokes, such as would be produced by a pen.

A a B b C c 1 2 3

Type Design

Typefaces have been classified many different ways, but there are two traditional categories: serif and sans serif. As mentioned above, serif characters have horizontal strokes at the tops and bottoms of their verticals, and they often display thick and thin strokes.

B B 1 1

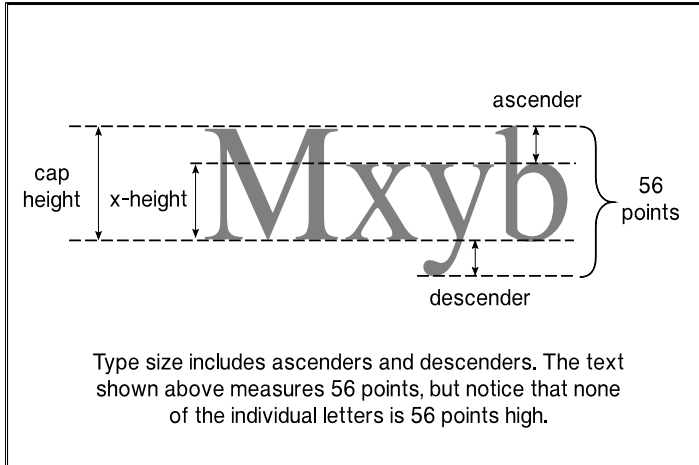Serif   Sans Serif   Serif   Sans Serif

Sans serif characters have no serifs; it is that simple.

Of the two, sans serif typefaces are the more recent design, but serif typefaces are still being created, and they do outnumber the sans serifs.

Measurement

Type is traditionally measured in points and picas, a system similar to inches and feet: 12 points equal one pica. The increments of pica measurement are very small (6 picas or 72 points equal one inch) and are thus very appropriate for measuring type.

The point size of a given font is measured from the top of the font's ascenders to the bottom of its descenders. A font's cap height is the measure of the height of an uppercase (capital) letter; its x-height is the measure of a lowercase (small) letter.

Type size includes ascenders and descenders. The text shown above measures 56 points, but notice that none of the individual letters is 56 points high.
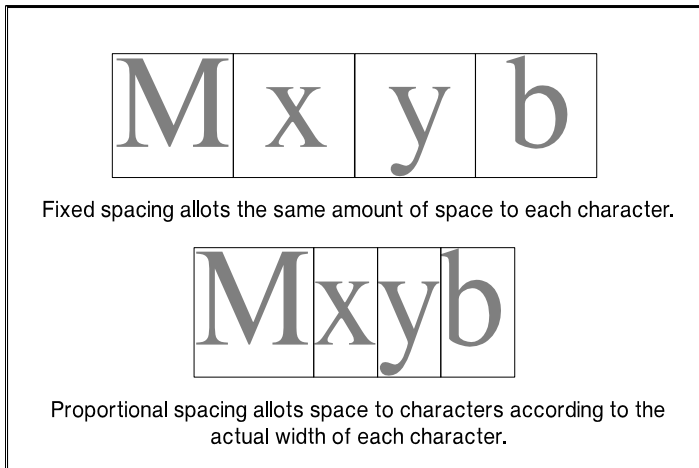
The traditional measurement between lines of type, called leading (and pronounced *ledding*), is measured in points from baseline to baseline. (Some typesetting systems, such as Adobe PageMaker, allow you to choose from "Baseline," "Top of Caps," and "Proportional.") The baseline of a line of type runs parallel to the bottom of a font's x-height.
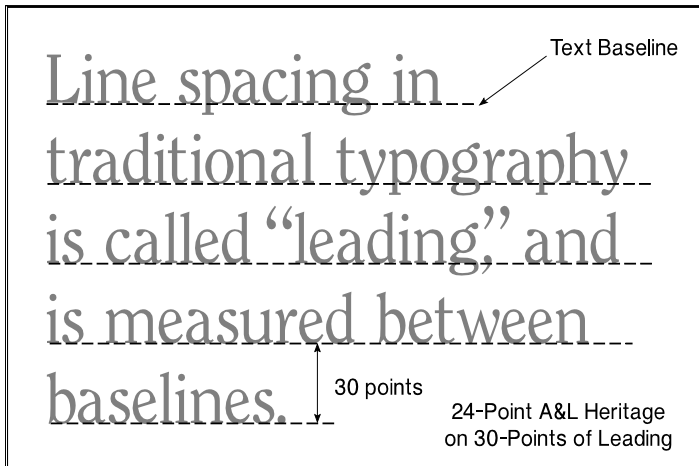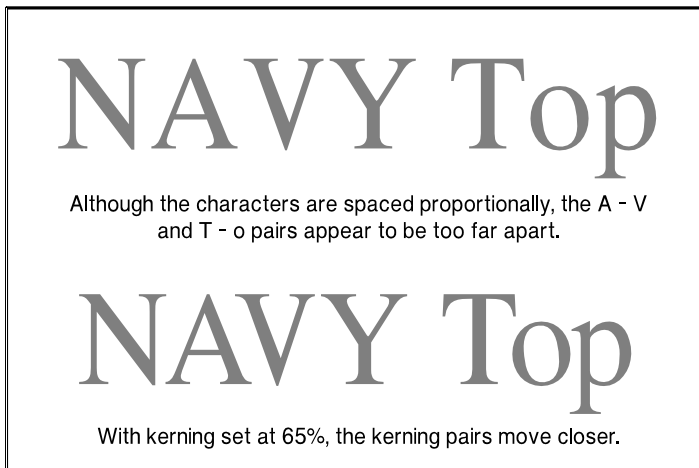

Fixed and Proportional Spacing

The spacing between characters in a font can be either fixed or proportional. Fixed spacing places every character in an invisible "cell" that is equal to the width of a capital "M" in that font. Typewriters and word processors generally use fixed spacing. Proportional spacing assigns each character a cell based upon the actual width of the character.

Fixed spacing allots the same amount of space to each character.

Proportional spacing allots space to characters according to the
actual width of each character.

Kerning

Kerning is a process that moves optically distant letter pairs closer together than their cells would normally allow. A proportional font need not be kerned to be readable; script fonts, for example, may not be kerned. However, kerning is a mark of typographic quality, and a well-made font will have kerning information built into it, so that all its optically distant letter pairs are affected. The fonts in the *Arts & Letters* BOSS Fonts package have been kerned, most with over 100 kerning pairs, and some with more than 400. *Arts & Letters* allows you further control of kerning pairs; you can specify from 0% (no kerning) to 100% (full kerning).

Although the characters are spaced proportionally, the A – V
and T – o pairs appear to be too far apart.

With kerning set at 65%, the kerning pairs move closer.

Raster Typefaces

Raster typefaces are composed of bitmapped images of individual characters at different sizes. Each font file contains a pixel-by-pixel representation of each character. Because a separate file of images is required for each size, raster typefaces are available to the user in graduated steps: 8 point, 10 point, 12 point, 14 point, 18 point, 24 point, etc. There are no steps between the sizes. Users can rescale the resultant images, but because the letterforms are bitmaps, jagged edges will become apparent.

Because of the fixed size and scaling limitations, raster typefaces are not widely used.

Vector Typefaces

Vector typefaces are composed of either Bezier curve or quadratic curve descriptions of the outlines of font characters. Because of this, there is only one file for each font; the print controller generates the correct image for whatever size the user specifies. Some vector fonts

(such as those on the *Arts & Letters* BOSS Fonts CD-ROM) are designed with "hinting," an automatic process whereby letterforms are subtly and automatically altered to produce an optimum appearance, no matter what size they are printed, whether 6 points or 600. Vector typefaces come in two varieties: PostScript Type 1 (which utilize cubic Bezier curves) and TrueType (which utilize quadratic curves).

PostScript, a page-description language developed by Adobe, is the graphics industry standard for imaging text, graphics, and images. Because they are versatile and predictable, PostScript type fonts are also a standard in the graphic industry. Their font description files (.PFB and .PFM) are roughly half the size of TrueType files, which confers some storage advantage, but the Adobe Type Manager (ATM), a font handling program, is required in order to install and utilize PostScript fonts.

TrueType fonts were originally developed by Apple to compete with PostScript fonts. TrueType font files (.FOT and .FON) are roughly twice the size of PostScript font files, which could cause storage concerns. (The larger size is due partly to the quadratic curves used by TrueType fonts requiring three points, as opposed to the two points used in Bezier curves.) On the other hand, because TrueType is supported by Microsoft Windows, no additional font-handling program, such as ATM, is required by the user. The "Fonts" dialog box, in the Windows Control panel, is all that is needed to install and use TrueType fonts.

The fonts on the *Arts & Letters* Boss FONTS CD are provided in both PostScript and TrueType format, in order to give users the greatest flexibility.

Books About Typography

Typography is an art, and as such, it is quite beyond the scope of this booklet. There are a great many books about the subject of typography, and we have listed a few here.

The History and Technique of Lettering, by Alexander Nesbitt (New York: Dover Publications, 1957).

The Alphabet and Elements of Lettering, by Frederic W. Goudy (New York: Dover Publications, 1963).

Better Type, by Betty Binns (New York: Watson-Guptill, 1989).

First Principles of Typography, by Stanley Morrison (Cambridge: University Press, 1951).

Typography, A Manual of Design, by Emil Ruder (Niederteufen, Switzerland: Arthur Niggli, Ltd., 1977).

Designing with Type; A Basic Course in Typography, by James Craig and Susan E. Meyer (New York: Watson-Guptill Publications, 1980).

Manuale Typographicum, by Herman Zapf (Frankfurt, New York: Z-Presse, 1968).

American Typography Today, by Rob Carter (New York: Van Nostrand Reinhold, 1989).

Homage to the Alphabet; A Typeface Sourcebook (Rockport, Massachusetts: Rockport Publishers, 1991).