The TrueType Soft Font Tutorial

Introduction

The Windows 3.1 operating system is quite a popular software package. Part of this popularity has to do with Window's automatic support for TrueType scalable fonts. Windows users don't have to worry about what printer they own or what programs will support what fonts. With Windows 3.1 all you need to do is install a set of TrueType fonts and they will print on any printer and scale to any size. Unfortunately, many people find that using these fonts is not quite as easy as it sounds.

Why is it so hard to use fonts? Why can't you just sit down and start printing fancy documents? Fonts are an entire new world unto themselves, just like computers, LANs, or data bases. Most people who have never seen a computer can't just sit down in front of one and use it constructively. They need to learn about the computer and how it operates before they can use it. To be able to effectively use fonts, you need an understanding of what they are all about. This includes learning a new vocabulary. Once you have mastered this, fonts aren't all that difficult to use.

There are several different categories of fonts available in TrueType format. Windows comes with a basic set of TrueType fonts. You can also purchase add on font sets, *(like the one that accompanies this tutorial)*, from many manufacturers. Once you start printing with these fonts there are no real differences between them. However, getting to the point where you can actually print something with these fonts can take some work on your part.

Hopefully, this tutorial will provide you with the information you need to take control of your printer. Armed with this information you should have no trouble selecting and using soft fonts in your printer.

Defining Terms

It's very hard to understand a new subject unless you know the basic vocabulary used to talk about that topic. This tutorial has already mentioned fonts and the word scalable. Just what do these words mean?

Before we go any further, it's time to define a few typographic terms that you will need to understand in order to use fonts effectively. These definitions will help you understand how fonts are used. Four terms in particular are very important. These are: typeface, font, character, and character set.

A **TYPEFACE** is a particular design or description of what an entire alphabet will look like. A typeface is usually independent of the size, height, and weight *(thickness)*, of the letters in it. *(For the really detailed person we'll admit that there may be several typefaces that describe a single alphabet on a true typesetting machine. This is not, however, usually the case with TrueType fonts.)*

A **FONT** is an implementation of a typeface in a single weight, and typically with a single character set. A font is something tangible. You can buy, rent, or lease a font and use it to produce printed documents. By contrast, a typeface is only a design, and thus intangible. Each font contains a collection of characters that follow the design of a particular typeface.

A **CHARACTER** is a single letter or symbol within either a typeface or font. Once again, a character in a font is tangible and can be used to print something. A character in a typeface is simply a design.

Finally, a **CHARACTER SET** is an organized collection of characters. In the United States most people are familiar with the ASCII character set. It includes all the characters found on a standard US key board. This includes upper and lower case letters, numbers, punctuation, and some special symbols. Most Windows fonts follow the ANSI, not ASCII, character set. The ANSI character set includes all the characters in the ASCII set plus additional symbols, *(like copyright, registered, true quotation marks, etc.)*, and the additional characters needed for German, French, Spanish, and several other languages.

Soft Fonts

Now that you know what a font is, just what is a soft font? A **soft font** is simply a physical disk file- an implementation of a typeface in a particular weight that is saved as a disk file. Soft fonts are stored on your computer hard disk drive. When being used they may be sent to your printer, or used on your computer to create data that is sent to your printer.

TrueType soft fonts are **Scalable**. A scalable soft font is a collection of data that tells a computer or a printer how to draw that font at any size. Scalable fonts have several advantages over non-scalable ones. A scalable font can be used to make characters for your computer screen and for your printer. Thus, what you see on the computer screen matches what your printer produces. In addition, scalable fonts occupy less room on your hard disk than a matching collection of individually sized fonts.

Building Your Font Vocabulary

Fonts can be grouped into four major categories. When designing a document you decide what category of fonts to use before you pick an individual typeface or family. These four categories are: Serif, Sans Serif, Script, and Dingbats.

Serif: A serif font has small details placed at the beginning and end of character strokes. For example the letters "b" and "d" have small horizontal lines added to the top and bottom of each letter. These small lines are called serifs. They add detail to character shapes. In the United States, serif fonts are almost always used in magazines and newspapers for the body text of an article. Serif font samples:

ABDEF abcde 12345

Sans Serif: The word Sans means "without". So a Sans Serif font has no serifs. What does that mean? Take a look at any street sign or most of the lettering used as titles on television programs. Those are examples of sans serif fonts. Sans serif fonts are often used for headlines. In the United States, we typically use a sans serif font for the headline or title of an article and follow that with a serif font for the body of the text in that article. This contrast in text styles seems to make the document more readable. Note that using a sans serif font for a headline and a serif font for text is an arbitrary decision. It is how things are done in the US, but the reverse is true in most of Europe. Sans-Serif font samples:

ABDEF abcde 12345

Script: Script fonts are special typefaces that are designed to look like handwriting or calligraphy. The may resemble hand printing, connected letter handwriting, or simply elegantly designed calligraphy. Most script fonts are difficult to read, so they are not often used for writing documents. Due to the design of most script fonts, you should not place two capital letters next to each other. Script font samples:

ABDEF abcde 12345

Dingbats: The last typeface classification covers fonts that contain, not letters, but special symbols or ornaments. Dingbats may include bullets, stars, pointing objects, check marks or boxes, mathematical symbols, or basically anything that doesn't fit the definition of a letter. Dingbat font samples:

✌ ✍ ✎ ✐ ☞ ♋--♍♎♏ ✉ 📁 📁 📁 📂
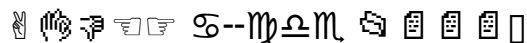
Decorative/Display vs Text: Fonts can generally be grouped into one of two categories. A font is either classified as Decorative *(also referred to as Display)* or as a Text font. Text fonts, as their name implies, are used in the body text of a paragraph or document. Decorative fonts are used for headlines, in advertisements, or to draw attention to a small section of text. In general, you do not use decorative fonts in the body text of a document. Decorative fonts are generally harder to read than text fonts, and decorative fonts are usually used only at larger point sizes *(14 points and higher)*. Samples include:

Text	**Decorative**
Arial	Aapex
Century	Cursive Elegant
CG Times	Old English
Fritz Quad	Zap Chance

Character Details: In most typefaces, an individual character sits on an imaginary baseline. *(Remember writing on lined paper? Those lines were the*

baseline for your hand writing.) Capital letters generally sit on the baseline and rise above it. The area above the baseline is known as the Ascender. Lower case letters sit on the baseline and may descend below it, *(g, j, p, q, & y)*. The area below the baseline is referred to as the Descender. Usually, no character in a typeface will reach all the way from the top of the ascender to the bottom of the descender areas. Imagine the capitol H shown below is sitting on a visible baseline. Look at the lower case p next to it. See how it descends below the baseline.

<div align="center">

HpHpHp

</div>

Points: The height of a font is measured in units called points. Personal computers have had an impact on font terminology, and there are now officially an even 72 points to the inch. Note that the point size of a font is measured from the top of the Ascender to the bottom of the Descender. So a typical font never has a single character that is the full point size in height. *(Point size is measured from the top of the "A" to the bottom of the "y".)*

You just have to get used to the point measuring system, since that is the way all programs refer to font height. Typewriters typically used 12 point type and that is a size you are probably most familiar with. Most books use from 10 to 12 point type for the body text. Headlines are set in larger point sizes, usually from 18 to 30 points. As type gets smaller than 10 points it gets harder to read. If you need to use very small type sizes, switch to a sans serif font. These are easier to read at very small sizes. The following sample shows the capital letter E from 8 to 30 points:

<div align="center">

E E E E E E E

</div>

Proportional VS Nonproportional Spacing: Almost all the text you have ever read was proportionally spaced. In a proportionally spaced font, every character has a different width. The letter "i" is much narrower than the letter "m". In a nonproportionally space font, or fixed width font, every letter has the same width. Typewriters use fixed width fonts, and most people like to use them for printing data and aligning numbers. However, fixed width fonts are much harder to read than proportionally spaced ones. Use fixed width fonts sparingly.

Font Variations: A typical font will be part of a family of similar fonts. The family is composed of subtle variations of the typeface the font is designed from. There will be a bold version of the font, and possibly light and black version. There may be an italic version or an oblique. *(An oblique font is one which is slanted, typically towards the right. An italic font is also slanted, but the actual design of some or all of the individual characters is also different from the non-italic version.)* Windows groups normal, bold, italic, and bold-italic variations of a single typeface under a common root name. When you select the Arial font, you automatically get Arial Normal. You can optionally pick bold, italic, or bold-italic

from the menu you used to select Arial. *(Assuming that font supports a family of font variations.)*

This is normal.
This is bold.
This is oblique or italic.
This is bold-oblique.

Fonts may also come in different widths. There may be a version of the font that places more characters in the same horizontal space. This will be called a condensed or narrow version. There may also be a version that takes up more horizontal space than the standard font. This will be called an expanded version.

Leading: The term leading, (comes from the metal lead), refers to the spacing between lines of text. In the old days people setting type used to add lead strips between lines of text to space the lines apart. Leading is measured in points, just like font heights are. There are two ways to measure leading. It is either the distance from one line's baseline to the next, or it is the amount of space added between two lines of text. Both ways of expressing leading mean the same thing. If you set 12 point text and add 2 points of leading between the lines you are doing the same thing as specifying 14 points between each line of text.

For more information on soft fonts contact: Elfring Soft Fonts, PO Box 61, Wasco, IL 60183 USA. Voice: 708-377-3520 Fax: 708-377-6402 ESF makes hundreds of different scalable TrueType fonts including: KeyCaps, bar codes, signatures, logos, and more.