

All About Fonts

Everyone who handles desktop work has their share of font problems. Whether PC or MAC related, fonts seem to be that final mystery which only the brave are willing to undertake. The following is a question and answer format which attempts to answer the most frequently asked questions about fonts.

What is the best way to organize/manage FONTS on the PC and how does it differ from the Mac?

Similar in scope to the Mac, there are two basic ways to deal with fonts on the PC. Unlike the Mac, however, there are two different utilities which deal with fonts and the way that the operating system correctly interprets the information about them. The Mac can handle True Type fonts and Postscript fonts at the system level. To enable a font on the Mac, a user can drop the fonts into the FONTS folder located within the System Folder, reboot the machine, and use the fonts from any application running under the Mac OS. Font managers such as Suitcase, Font Reserve, or Adobe Type Manager Deluxe add flexibility by allowing the user to manage their fonts on-the-fly, opening them and closing them at whim. Such utilities allow the user to place their fonts anywhere on the hard-drive and activate or de-activate without rebooting.

The PC works slightly differently. Within the Windows directory (folder), there is a FONTS folder which stores System, Open Type and True Type fonts. Since the True Type and Open Type architecture requires only one file (printer and screen font metrics inclusive), the user may (similar to the Mac) copy True Type fonts into the FONTS folder, reboot the machine, and access the fonts from any application running under the Windows OS. The difference comes in the usage of Postscript fonts. The Mac OS understands, translates, and transparently interprets the POSTSCRIPT language. Since the Mac was originally developed for publishing needs, and since Postscript is a de-facto standard in the publishing industry; The interoperability of Postscript devices connected to the Mac OS via AppleTalk protocols are transparent. So is the way that software applications respond to the Postscript code.

Windows was never developed with publishing in mind!

If there is anything that you walk away with from this conversation, learn this once and for all. The Windows platform evolved from office-type applications which (until recently) never included desktop publishing. Postscript is an add-on tool set developed by 3rd party software firms which only interpret the language and allow it to co-exist with Windows, NOT be seamlessly integrated with it as is the Mac OS.

Postscript fonts require a 3rd party interpreter such as Adobe Type Manager to rasterize the Postscript information contained in Type 1 and Type 3 fonts. Windows does not understand Postscript, so it relies on other utilities to do it.

Upon installation, ATM Lite or ATM Deluxe creates a folder on the root level of the hard drive called Psfonts. This folder contains the printer font files necessary for the output device to correctly shape the outlines of the character attributes. The files within this folder contain a suffix of .pfb (printer font binary). Another sub-folder called pfm (located inside the Psfonts folder contains the .pfm (printer font metrics) files. These files are associated with screen font information.

Every font installed in Windows requires system resources—so even those fonts you never get around to using are taking a toll on your system's performance. And it's not unusual to find you have hundreds of fonts, many of which you didn't install yourself. Programs like Microsoft Office and CorelDRAW come with dozens of fonts and install them all in Windows automatically. Knowing where these fonts reside, and where they should go saves significant amounts of time and effort.

Font format has no bearing on font quality. TrueType or Open Type fonts can be just as good as Type 1 fonts and vice versa—the format is merely a specific way for software to describe a font's appearance. Quality is determined by the design of the typeface and how carefully it was digitized (turned into an electronic font). However, on a PostScript printer, Type 1 fonts tend to look better than TrueType fonts. TrueType fonts need to be translated into PostScript by the printer driver, which can result in loss of quality.

The biggest problem with TrueType is that sometimes fonts with intricate designs won't display or print at large sizes. One

solution is to use Type 1 fonts for complex designs. Another is to change the point at which Windows' rasterizer switches fill methods. To do that, add the following line to the [TrueType] section of your WIN.INI file: OUTLINETHRESHOLD=70. If this causes Windows to draw fonts too slowly, raise the number in small increments until you get the desired effect. But don't exceed the default value of 127. A third solution is to use an illustration program, such as Illustrator or CorelDraw, to convert complex characters into graphics. With Type 1 fonts, the biggest problem is that the WIN.INI and ATM.INI files can get out of sync, especially if you have more than one PostScript printer installed. Fonts may appear for one PostScript printer but not another. One solution is to select one PostScript printer as the default, remove and reinstall the fonts into ATM while that printer is selected, and then repeat these steps for each PostScript printer you have. Alternatively, you can open the WIN.INI file, find the complete font listing under one of your PostScript printers, and then copy and paste it under the other PostScript printers.

Cryptic Filenames

Cryptic filenames present the biggest problem when it comes to managing your fonts manually. Many fonts have filenames similar to their typeface names, like TIMES.TTF for Times New Roman. But others, notably those from Bitstream and Adobe, have filenames only a programmer could love.

For example, all Bitstream TrueType filenames begin with TT, followed by a series of numbers. Adobe began naming its fonts with somewhat logical two-letter abbreviations (ZD____.PFB is the filename for Zapf Dingbats), but once the two-letter combinations were exhausted, the names became more mysterious. Who could possibly guess that Caflich Script is concealing itself in ZESW____.PFB? Or that ITC Avant Garde lurks inside a file called TT0154M_.TTF?

ATM Deluxe lets you manage fonts by typeface name, so you don't have to know the filenames. But when you work manually, things get trickier. You can open the font files in Windows Write. Choose No Conversion when opening the file, then search for the word Copyright or the copyright character (Alt+0169) to find the name of the font. Make sure you never save a font file in Write, Notepad or any other text editor. The font will not be saved correctly and will be unusable.

What's worse, if Windows tries to use a font you've saved, the TrueType rasterizer could shut down, forcing you to reboot your computer. Or Windows could crash completely.

Once your fonts are in group directories, all you have to do to install a group is go to that directory in Control Panel or ATM and install all the fonts in it.

Windows places one restriction on the number of fonts you can have installed at one time. Each installed font increases the size of the WIN.INI file, but the WIN.INI file can't exceed 64KB. (Some apps will fail if they encounter a WIN.INI file larger than 32KB.) A typical font adds only around 40 bytes to WIN.INI, but if you have multiple PostScript printers and you install multiple fonts for each, you can easily reach the limit.

Each time you install or remove a font from Windows, it sends a message to all the programs that are running to tell them about the change. The more apps you have running when you add or remove a font, the longer the process will take. So before you do any major font management, close all programs except Control Panel or ATM.

To install a TrueType font, you need to run Control Panel and select Fonts. Next, click on the Add button, go to the directory where the font resides, select it and click on OK to add it. To install a Type 1 font, you must run the ATM program, click on the Add button, go to the directory where the font files reside, select the fonts to install and click on Add.

For best performance, always store your font files on the hard disk. It's possible to install fonts that reside on a CD-ROM, but performance can be slow, and if you change the disc Windows won't be able to use the fonts. If your fonts are on a diskette, make sure you allow Control Panel or ATM to copy them to the hard disk for you. A couple of caveats: If you're installing TrueType fonts that are already on your hard disk, uncheck the box marked Copy Fonts to Windows Directory. For Type 1 fonts, check the box marked Install Without Copying Files. Otherwise, you'll end up with duplicate fonts on your hard disk, which is a big waste of space.

How can we prevent reflow?

There are only three ways that reflow can be prevented. The first method involves converting all text within a desktop application to curves (very unpractical). The second involves creating a PDF hi-res file, then imposing the individual PDF pages into a program such as InDesign; and the last requires creating a full Postscript file, and download of the job. The obvious downfall of the above mentioned workflows are associated with changes having to be done after a proof is shown to the customer. If a text change is needed, the entire Postscript creation process needs to be repeated. Acrobat text changes (minor) are allowed, but can impact spacing if more than several words need to be changed.

Are there different versions of the same font hiding in the system?

Different font manufacturers do make similar fonts. Generally speaking, however, the font does have a different naming convention. Helvetica is marketed by Adobe, ITC, and AGFA; all under the same name. Bitstream does not market Helvetica, but their Swiss fonts are a knockoff of the Helvetica attributes.