About OpenType

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Not all fonts are created equal. Some fonts work better than others – depending on how and where you work. If you are a professional graphic designer, it's a safe bet that your fonts of choice are of the PostScript Type1 variety. Over 80% of the professional quality fonts purchased for traditional design and publishing are PostScript Type1. If, however, you work in a corporate environment, if you use a "WinTel" machine, or if you do a lot of Internet publishing, then you more than likely use TrueType fonts. Both font formats have advantages and disadvantages – depending upon your needs.

Basically, if you read type on screen, TrueType has the most advantages, while high-resolution imaging is the domain of Type 1 fonts. Now OpenType proposes to give you the best of both worlds.

What is OpenType?

Developed jointly by Microsoft and Adobe and supported by Agfa's compression technology, OpenType provides a series of enhancements to the TrueType format, the most significant of which will allow PostScript font data to nest inside a TrueType software "wrapper."

The main goals of OpenType are:

- Broader multiplatform support
- To enable fonts to have large character sets.
- Improved Internet and PDF (Portable Document Format) publishing
- Better protection for fonts

Multiplatform support

OpenType is a superset of the existing TrueType and Type 1 formats, and it will provide support for both type in print and on-screen. Technically, an OpenType font can contain Type 1 outline data only, TrueType outline data only, or both. The Type 1 data will be rasterised by a Type 1 rasteriser such as Adobe Type Manager or converted to TrueType data for rasterisation by a TrueType rasteriser. The good news is: OpenType fonts work right "out of the box" (although, not quite). Adobe is developing a new version of Adobe Type Manager to support the PostScript version of OpenType, so you will need this piece of software. Old versions of Windows NT also won't work with OpenType, but a new version from Microsoft will. Adobe and Microsoft have also promised that these products will be available when OpenType hits the streets. Both PostScript and TrueType versions of OpenType will be supported across all platforms, making fonts easier to use - and more versatile.

Large character sets

OpenType allows type designers and font foundries to create larger character sets within fonts. Currently, fonts are limited to 256 characters. If a typeface designer wants to create an extended ligature set, small caps, swash and alternate characters, or characters to support multiple languages, these have to be put into another font. To use these additional characters, you need to switch back and forth between the fonts – not particularly efficient or user-friendly.

Technically, 65,000 characters can be put into one OpenType font. Unless you are setting languages such as Japanese or Chinese, however, a few hundred characters are probably sufficient for most of us. The large character set capabilities of OpenType, however, will allow type designers much more latitude in typeface design, resulting in better graphic communication. More good

news: OpenType not only supports more characters, but OpenType will also be smart enough to know how to use them.

Swash letters are a great example. If, for example, you set the word “Free” in an OpenType font, an OpenType savvy application could automatically add a swash “r” (if one were available in the font) that gracefully arched over the first “e” in the word. If you change the word, however, to “Liberty,” the swash “r” would probably be removed because it would run into the ascender of the lowercase “t”. In each case your spelling checker would know that even though the design of the letter changed, the alphabetical character did not.

Improved internet & PDF publishing

OpenType makes it possible for Web page creators to include high quality on-screen fonts with their online documents. This means that designers will be able to produce typographically richer documents and reduce the time required to download and display these documents on screen. Additionally, readers will see on-screen pages as they are intended to be seen.

Better font protection

OpenType fonts will also contain a “digital signature” that will allow operating systems and browsing applications to identify the source and integrity of fonts – including embedded font files obtained in Web documents. In addition, font developers will be able to encode embedding restrictions in OpenType fonts to maintain better control over how their fonts are used.

Font embedding

The OpenType format also allows for font embedding. This means that a font can be included with a file and sent to someone else. There will be four approaches to OpenType font embedding:

- Font embedding that allows the document to be viewed on screen and printed
- Font embedding that allows viewing, printing, and document editing
- Font embedding that allows viewing, printing, editing, and installing onto a hard drive
- No embedding allowed

Fonts developed at Agfa Monotype will allow font embedding for the purpose of viewing and printing. It makes sense for readers to be able to see your documents as they were intended, but less sense for them to be able to edit your work – and no sense for them to be able to get your fonts for free.

What does this mean to you?

One of the “ghosts” being raised about OpenType is that someday font users may have to purchase completely new OpenType libraries to replace their older PostScript and TrueType fonts.

The ghost is real – sort of. Fonts are software and, like any other software, there will come a time when they need to be upgraded. This doesn’t, however, mean you will have to win the lottery to protect your investment in fonts. Why? First, because it takes a long time for technologies to become so dated that they no longer function. Second, because upgrades are historically licensed at a small fraction of the original software price – and sometimes they are given away for free.

Agfa Monotype is committed to providing an inexpensive and smooth method to advance beyond current font technologies and you will hear a lot more about OpenType as the technology evolves. You don’t have to do anything about the technology now, and your current type library – and any new PostScript or TrueType fonts you purchase – will work just fine when OpenType becomes a practical reality. When fonts are released that take full advantage of OpenType, you will have new and exciting typographic capabilities at your fingertips – or with the click of a mouse.