

A quickie guide to  
Type 1, TrueType,  
& OpenType

# what's your type

by Ilene Strizver

You've narrowed down the fonts you want to use in a design and are ready to purchase them. But now you're faced with another decision: font format. Should you go with Type 1, TrueType, or OpenType? What's the difference anyway? If you're confused by the jargon, you're not alone. Here's an overview to help clear up your confusion and aid in decision-making.

## **The firstborn**

The first of the three font formats, Type 1 (or PostScript Type 1) was developed by Adobe Systems in the mid-1980s. This format is based on a computer language called PostScript, which describes type and graphics in a way that allows for precise, sharp printing at any size.

Type 1 consists of two components: an outline font and font metrics (on a Mac, the latter resides in a bitmap suitcase). Both are required to view and print a font. Type 1 accounts for about 75 percent of professional-quality font purchases, primarily because imagesetters—a device service bureaus and printers use to output type and graphics at high resolution—use PostScript. Because of this shared technology, Type 1 is believed to be more reliable with fewer font conflicts when printing.

## The middle child

Several years later, Apple Computer and Microsoft joined forces to develop TrueType. This format consists of a single file that contains both screen- and printer-font data. It's most commonly used by Windows users and the non-design community, with the exception of "core" TrueType fonts that come standard on most computer operating systems.

TrueType differs from its predecessor mainly in its expanded "hinting" capability. Hints are digital instructions built into a font to improve on-screen and printed appearance, predominantly at small sizes. It's time-consuming and costly to produce a font that features this enhanced clarity, so while some TrueType fonts have it (like core fonts), others don't.

## The newborn

OpenType, the newest addition to the font format family, is a kind of superset of Type 1 and TrueType with added enhancements. Developed jointly by Microsoft and Adobe, it contains several exciting features including multiplatform support, expanded character sets, and character substitution.

Multiplatform support means that OpenType fonts run on both Mac and Windows machines—a valuable convenience if you use a PC at the office and a Mac at home or vice versa. Just make sure you have the appropriate licensing agreement before sharing fonts between computers!

Expanded character sets are another boon to the enthusiastic type user. The standard Type 1 set contains 256 characters. In contrast, an OpenType font can potentially incorporate 65,000 characters such as old-style figures, true-drawn small caps, extended ligatures, swashes and alternate characters, fractions, ordinals, proportional and tabular figures, dingbats, and symbols—all in one font. This feature is a tremendous advance to those interested in enhanced typographic features.

Character (or glyph) substitution goes hand in hand with an expanded character set. OpenType fonts are smart; they know when to insert certain ligatures, swashes, or special characters. For instance, some swashes are intended for use at the beginning or end of words; otherwise, they'll crash into surrounding letters. When character substitution is acti-

## Type 1

### pros

- favored by Mac-based designers
- greater availability of quality fonts

### cons

- single-platform format
- additional characters must be accessed from a separate font

## TrueType

### pros

- favored by Windows users
- enhanced hinting capabilities for sharper viewing and printing at small sizes and low resolutions

### cons

- single-platform format
- only a select number of fonts have enhanced hinting capabilities
- additional characters must be accessed from a separate font

## OpenType

### pros

- multi-platform support
- expanded character sets in a single font
- glyph substitution

### cons

- limited software support for advanced features
- limited availability at present

vated in an application such as Adobe InDesign, the correct swash is automatically inserted. If the text is changed, the swash is adjusted accordingly.

Be aware that not all OpenType fonts feature extended character sets. The completeness of a character set is determined by the type designer or foundry. Generally, a visit to the manufacturer's website provides a list of what's included in a font's character set. Currently, the largest producer of OpenType fonts is Adobe, which recently converted its entire library to OpenType.

While OpenType fonts run on most operating systems and can access the standard 256 characters, many of the typographic goodies are accessible only by software that has OpenType layout support. Currently, only Adobe InDesign supports these features, with Adobe Photoshop 6 and 7 supporting a few of them.

## It's your choice

Selecting a font format isn't as difficult as it might seem. When choosing, your decision will often be determined by which format is available for the font. Some are either Type 1 or TrueType; others are available as both. Some foundries will provide both formats for the cost of one font. Note: Type 1 fonts are preferred over TrueType by those in graphic arts and publishing.

Don't rule out the new kid on the block. More and more OpenType fonts are becoming available (some fonts are available only in OpenType). This format is a good choice if you have cross-platform needs or want to try out new typographic features. Just be aware that your software might not support all of the enhanced features.

Chat with your printer or service bureau to see which format(s) they support and prefer, especially if you're considering OpenType. You might be the first to nudge them in a new direction, but you won't be the last. ●

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