

## Japanese OpenType Font Q&A

### What is OpenType?

OpenType® is a new cross-platform font file format developed by Adobe Systems Incorporated and Microsoft. Based on the Unicode standard, the OpenType format is an extension of the TrueType SFNT format that can now support PostScript® font data and new typographic features.

Unless otherwise indicated, the OpenType fonts referred to in this document are Japanese font products produced by Adobe in the OpenType format.

### What is Unicode?

Unicode is an encoding standard developed by the Unicode Consortium, a non-profit organization established to develop, extend and promote the use of the Unicode Standard. Unicode specifies the representation of text in modern software products and standards. It provides a unique number for every character, no matter what the platform, no matter what the program, no matter what the language. For more information on Unicode, please go to the official Unicode web site at <http://www.unicode.org/standard/WhatIsUnicode.html>.

### Why did Adobe introduce “another” font format?

The OpenType format offers outstanding benefits to users: cross-platform font file format, Unicode encoding, rich linguistic support with the capacity to support over 65,000 glyphs, powerful typographic capabilities for high-end publishing, and simplified font management requirements. OpenType fonts are best suited for meeting the demand for complex script handling and high quality typography in today’s global publishing and communication environment.

### Do OpenType fonts use PostScript outlines?

To date, all OpenType fonts produced by Adobe contain PostScript outlines. Other font developers may choose to develop PostScript- or TrueType-based OpenType fonts. PostScript-based OpenType fonts use an .otf file name extension, whereas OpenType fonts with TrueType outline data use a .ttf or a .ttc file name extension. In general, Adobe applications provide same level of support to these two flavors of OpenType fonts.

### What are the system requirements for the OpenType font products produced by Adobe?

Macintosh: Mac OS 8.6 through 9.x, Mac OS X (Classic and Native)

Windows®: Windows 95/98/ME, Windows NT® 4, Windows 2000, Windows XP

### Is Adobe Type Manager® (ATM®) software needed for OpenType rasterization?

ATM Light version 4.6 is needed if you are running Mac OS 8.6 through 9.x. including Mac OS X Classic.

ATM Light version 4.1 is needed if you are running Windows 95/98/ME or Windows NT 4.

You can download a free copy of ATM Light from Adobe’s web site at:

<http://www.adobe.co.jp/products/atmlight/main.html>.

ATM Light is not needed if you are running Mac OS X (Native), Windows 2000 or Windows XP. Rasterization for both Type 1 and OpenType is natively provided by the operating systems in Mac OS X, Windows 2000 and Windows XP.

## **How do you install OpenType fonts produced by Adobe?**

Macintosh:

- Mac OS 8.6 through 9.x, including Mac OS X Classic, simply drag and drop the font file into your System's fonts folder.

- On Mac OS X Native, because fonts can be accessed by (a) any user or (b) a specific user, you need to choose which location you want to install your fonts to. You can drag and drop the OpenType font files into either of the following locations:

(a) <VolumeName>/Library/Fonts/ (Note: you must be logged on as an "Administrator" to place fonts in this location.

(a) <VolumeName>/Users/<username>/Library/Fonts/

Windows:

- On Windows 95/98/ME, Windows NT 4, use the ATM application to add the fonts.

- On Windows 2000 and XP, use the Fonts Control Panel to add the fonts, or drag the font files to the /Windows/fonts folder.

Please refer to the OpenType User Guide for detailed installation instructions. The OpenType User Guide can be downloaded from Adobe's web site: <http://www.adobe.co.jp/products/type/main.html>.

## **Are OpenType fonts copy-protected?**

No. OpenType fonts produced by Adobe do not have installation or run-time copy protection. Additionally, they allow PDF embedding, and outline access by applications and host-based RIPs. All OpenType fonts can be printed to output devices of any resolution.

OpenType fonts licensed from Adobe are subject to a one-computer End User License Agreement (EULA) that allows for their installation on one computer.

## **What are the differences between "Standard" and "Pro" OpenType fonts?**

These two flavors of Japanese OpenType fonts differ in the number of glyphs and in the richness of their advanced typographic features.

OpenType "Standard" Japanese fonts produced by Adobe are based on the Adobe-Japan1-3 character collection, which includes up to 9,354 glyphs.

OpenType "Pro" Japanese fonts produced by Adobe are based on the Adobe-Japan1-4 character collection, which includes up to 15,444 glyphs.

## **How can I access the additional glyphs in a Pro font?**

You can access the glyphs:

- By turning on OpenType features in Adobe® InDesign® software or by using the InDesign glyph palette to select specific glyphs

- By using Unicode-savvy input methods to access all encoded glyphs

## **How many glyphs in a Standard font have Unicode encoding?**

8,175 glyphs in a Standard font are encoded with unique Unicode values.

## **How many glyphs in a Pro font have Unicode encoding?**

9,772 glyphs in a Pro font are encoded with unique Unicode values.

## **How can I access glyphs that are not encoded in Unicode?**

You can access those glyphs that do not have Unicode encoding values, as well as those that do through input methods and applications that support OpenType features. Adobe InDesign is the first Adobe application that provides extensive OpenType feature support.

## **What OpenType features are supported by InDesign 2.0J?**

The following features are supported by InDesign 2.0J. For detailed information on the features, please refer to the InDesign 2.0J user documentation.

- Discretionary ligatures
- Fractions
- Numerator/denominator
- Superscript/subscript
- Japanese Roman italics
- Directional Kana forms
- Kerning
- Ruby
- Japanese forms (JIS 78, JIS 83, Expert, Traditional forms)
- All alternate forms, including variants and annotated forms
- Proportional metrics for both horizontal and vertical writing
- Alternate width forms
- Vertical forms

In addition to the above features, InDesign 2.0, including the Japanese version, also supports a wide range of typographic features for Western OpenType fonts. For details on the Western OpenType feature support in InDesign software, please refer to the OpenType User Guide (for Western OpenType fonts), available at <http://www.adobe.com/type/opentype>.

## **How are OpenType fonts supported in other Adobe applications?**

Adobe applications provide basic OpenType support, meaning that OpenType fonts work like any other fonts in these applications. Some Adobe applications such as Adobe Photoshop® also provide Unicode font support. For example, users can input any glyph in an OpenType font that has a unique Unicode value. Adobe Photoshop software also supports some advanced OpenType typographic features including kerning and ligatures.

For document exchange, we recommend using PDF to ensure that all the glyphs and layout arrangement produced with Adobe InDesign using OpenType fonts will be preserved.

## **If I use the glyph substitution features in Adobe Illustrator®, what happens to the alternate glyphs if I switch the sfnt-CID fonts to OpenType fonts?**

Adobe Illustrator supports glyph-substitution features for sfnt-CID fonts. Although all alternate glyphs in a sfnt-CID font are also included in a Japanese OpenType font, unfortunately, at present Adobe Illustrator software does not yet support any OpenType glyph substitution features. As a result, alternate glyphs will be replaced with standard glyphs when switching sfnt-CID fonts to OpenType fonts in Adobe Illustrator.

## **Can you use OpenType fonts in non-Adobe applications?**

Non-Adobe applications will be able to get the basic OpenType format support through ATM Light or the OS. In other words, these applications should handle OpenType fonts the same as TrueType or Type 1 fonts. However, supporting the advanced typographic features in an OpenType font will require additional work by the software developers.

## **How are the OpenType Pro fonts that are bundled with Mac OS X different from the OpenType Pro fonts produced by Adobe?**

The OpenType fonts bundled with Apple's Mac OS X may contain additional glyphs beyond the 15,444 glyphs that Adobe-produced OpenType Pro fonts contain. In addition, Apple's OpenType fonts may also contain additional feature tables that are specific to the MacOS. Adobe's OpenType fonts do not contain platform-specific features in order to achieve true cross-platform and document portability.

## **What happens if I create a document with Apple-produced OpenType fonts and then I switch to Adobe-produced OpenType fonts?**

Unfortunately, if you use any of the additional Apple glyphs that are not in the Adobe-produced OpenType fonts, font switching between the two may cause certain characters not to appear correctly. We recommend that end users avoid switching fonts when creating documents using those additional Apple glyphs.

## **How can I achieve best cross-platform document portability?**

The ingredients for achieving best cross-platform document portability are:

- OpenType fonts
- Operating Systems with Unicode support (OS X, Windows 2000, Windows XP)
- Applications that offer Unicode support and cross-platform feature support (Adobe InDesign, Adobe Photoshop, etc.)

## **What do I need to know if I already have CID, OCF fonts?**

- Co-existence: You can use OpenType fonts in documents that also contain CID or OCF fonts.
- Glyph support: Because OpenType fonts contain glyph collections that are superset of what is in CID or OCF fonts, you may switch fonts from CID or OCF to OpenType and all glyphs will appear. But switching from OpenType to CID or OCF may cause certain glyphs to not appear correctly.
- Document reflow: Because OpenType fonts contain additional features that are not available in CID or OCF fonts, changing fonts between OpenType and CID or OCF may cause document reflow.

OpenType fonts have different font names that should enable users and applications to treat them as "new" or "different" fonts despite the existence of their close "relatives."

## **Will Adobe release OpenType printer fonts?**

No. There will not be any printer version of the OpenType fonts produced by Adobe. Printing of OpenType fonts can be handled by a variety of mechanisms including the following.

- ATM/font rasterizer sending bitmaps for printing
- Application sending font outlines with a job
- PostScript driver incrementally downloading the fonts
- PDF printing with font embedding
- Host-based RIP directly accessing the fonts

## **How does OpenType print without printer resident fonts?**

### 1. PostScript output devices

- Many applications, including Adobe InDesign, Adobe Illustrator, and Microsoft Word can output outlines to PostScript printers using OpenType fonts on a host computer. This is done either through applications that include font outline data with a print job, or through a PostScript driver dynamically downloading the outlines at print time.
- Some applications may choose to send bitmap data to the PostScript printers instead of downloading outlines. OpenType fonts produced by Adobe do not have any resolution restriction built in the fonts, and ATM Light does not impose any rasterization resolution restriction on OpenType fonts. Therefore bitmap printing should also

yield full fidelity output.

2. Other output devices:

ATM Light or PostScript font support engines in OS X, Windows 2000 and XP will rasterize OpenType fonts and send bitmaps to printers that do not utilize PostScript RIPs. Some applications may impose a resolution limit on the bitmap image to control the output file size.

### **Can you print OpenType fonts to printers with CID or OCF fonts already installed on the RIPs?**

Yes, you can print OpenType fonts to any output devices, including printers with CID or OCF pre-installed or downloaded. However, the CID or OCF printer fonts will not be used for OpenType font output. This is because the OpenType fonts are treated as different fonts with different menu and PostScript names. Please note that printer fonts are not necessary for outputting OpenType fonts.

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