

OpenType® User Guide for Adobe® Fonts

August 2002

What is OpenType?
Minimum System Requirements for OpenType .otf Fonts
Additional Software Installation
Installing OpenType .otf Fonts
Removing OpenType .otf Fonts
OpenType and Font Management Utilities
Accessing Foreign Language Characters
Application Support for Advanced OpenType Features
OpenType and Adobe Applications

www.adobe.com/type/opentype



A

A

A

a

a

š

ţ

ſp

ffi

Th

Ⓓ

λ

Ж

5/8

€



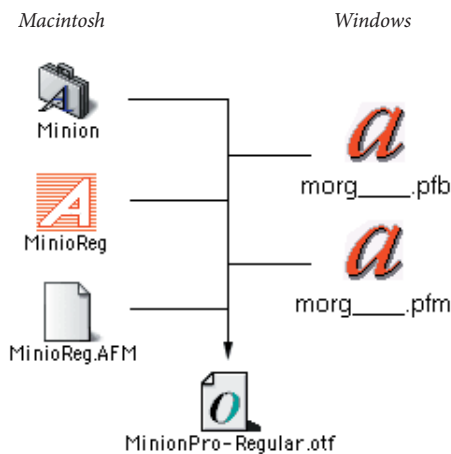
What is OpenType?

OpenType is a new cross-platform font file format developed by Adobe and Microsoft. Based on Unicode, OpenType is an extension of the TrueType SFNT format that can now support PostScript® font data and new typographic features. OpenType fonts containing TrueType data have a .ttf or .ttc suffix in the font file name, while PostScript based OpenType fonts have an .otf file name suffix. This user guide deals primarily with the installation and use of OpenType .otf fonts.

OpenType fonts may include an expanded character set and layout features to provide richer linguistic support and advanced typographic control. Feature-rich OpenType fonts from Adobe with support for central European (CE) languages can be distinguished by the word “Pro,” which is part of the font name and appears in application font menus. OpenType fonts that do not contain central European language support are labeled “Standard,” and are designated by an “Std” suffix in the fonts’ menu names. All OpenType fonts can also be installed and used alongside PostScript Type 1 and TrueType fonts.

One Cross-Platform Font File

All OpenType fonts use a single font file for all of their outline, metric, and bitmap data, making file management simpler. The file names for OpenType fonts from Adobe are clearly descriptive. In addition, the same font file works on Macintosh and Windows computers, improving cross-platform portability for documents.



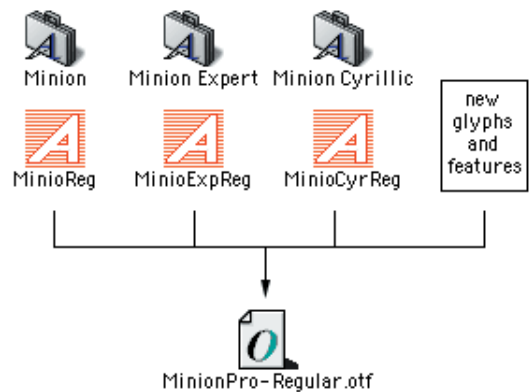
Better Language Support

Based on Unicode, an international multi-byte character encoding that covers virtually all of the world’s languages, OpenType fonts can make multilingual typography easier by including multiple language character sets in one font. All OpenType fonts from Adobe include the standard range of Latin characters used throughout the western world, and several international characters, including the euro currency symbol (€),

“estimated” (€), and litre (ℓ). Adobe’s “Pro” fonts add a full range of accented characters to support central and eastern European languages, such as Turkish and Polish. Many of the Pro fonts also contain Cyrillic and Greek character extensions in the same font.

Advanced Typography with OpenType Pro fonts

OpenType fonts may also contain more than 65,000 glyphs, unleashing exciting typographic capabilities. Many non-standard glyphs, such as oldstyle figures, true small capitals, fractions, swashes, superiors, inferiors, ornaments, titling letters, contextual and stylistic alternates, beginning and ending letterforms and a full range of ligatures may also be included in a single font. In the past, a typical Western PostScript font was limited to 256 glyphs, forcing users to install and manage two or more style-related fonts in order to access “expert” or other supplemental characters. OpenType significantly simplifies font management and the publishing workflow by ensuring that all of the required glyphs for a document are contained in one cross-platform font file throughout the workflow.



Historically, some of the highest-quality typefaces have had different designs for different print sizes. Called “opticals,” these variations have been optimized for use at specific point sizes. A number of OpenType fonts from Adobe include four optical size variations: caption, regular, subhead and display. Although the exact intended sizes vary by family, the general size ranges include: caption (6-8 point), regular (9-13 point), subhead (14-24 point) and display (25-72 point).

Unbelievable *Caption*
 Unbelievable *Regular (Text)*
 Unbelievable *Subhead*
 Unbelievable *Display*

Overall, OpenType provides richer support for the world's languages, more powerful typographic capabilities, better cross-platform compatibility, as well as simplified font management. For more information on OpenType, please refer to the Adobe web site at www.adobe.com/type/opentype.

Minimum System Requirements for OpenType .otf Fonts

Macintosh

- Macintosh with PowerPC® processor
- Mac OS 8.6 to 9.2 or Mac OS X
- ATM® Light or Deluxe, version 4.6 or later (not required for Mac OS X native)
- AdobePS printer driver 8.6 or later recommended if using a PostScript printer with Mac OS 8.6 or 9
- ATM updater to 4.6.1a/4.6.2a, if using AdobePS 8.8 or later
- 16 MB of RAM

Windows

- PC using a Pentium® or compatible processor
- Microsoft Windows® 95, 98, Millennium Edition (ME), Windows NT® 4 (SP 4), Windows 2000 or Windows XP
- ATM Light or Deluxe 4.1 or later (not required for Windows 2000/Windows XP)
- AdobePS printer driver 4.3 or later, if using Windows 95/98/ME with a PostScript printer
- AdobePS printer driver 5.1.2 or later, if using Windows NT 4 with a PostScript printer
- 16 MB of RAM

Note: Mac OS X, Windows 2000 and Windows XP (Home and Professional) provide native support for OpenType .otf fonts (as well as PostScript Type 1 fonts) and do not require ATM Light or the AdobePS printer driver.

Additional Software Installation

Before using your OpenType .otf fonts, you may need to install the latest versions of the Adobe Type Manager Light software and the AdobePS printer driver, which are both available as free downloads from the www.adobe.com website.



Adobe Type Manager (ATM) Light

Adobe® Type Manager® (ATM®) Light is a system software component that automatically generates high-quality screen font bitmaps from PostScript® Type 1 or OpenType .otf outline font data. With ATM, you can use Type 1 and OpenType fonts at any size, and you can also enable “font smoothing,” (anti-aliasing) which further improves the appearance of your fonts on-screen. ATM Light also allows you to print

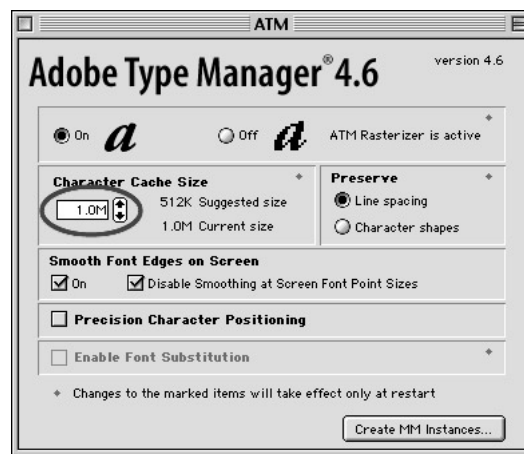
your PostScript Type 1 or OpenType .otf fonts to both PostScript and non PostScript printers.

Note: Windows 2000 and Windows XP do not require ATM Light. Mac OS X only needs ATM Light to provide support for “Classic” applications, not for Carbon or native applications.

To download ATM Light, go to:

<http://www.adobe.com/products/atmlight/main.html>.
If using AdobePS 8.8 or later, you should also update ATM to 4.6.1a/4.6.2a. The update is available at: <http://www.adobe.com/support/downloads>

Note: Adobe recommends that once you install ATM Light, you increase the utility's character cache setting (the amount of memory allocated for storing font information and drawing it to your computer screen) to at least 512K in Windows 98/ME (newer versions of Windows do not have a character cache setting), and to at least 1MB in the Macintosh version. To increase this setting in the Windows version, select the “Settings” tab in the ATM window. On the Macintosh, it is in the main control panel for ATM Light; in ATM Deluxe, select the “Preferences...” command in the File menu.



AdobePS Printer Driver

If you are printing to a PostScript printer or creating PostScript print files (perhaps for Adobe Acrobat Distiller), the AdobePS printer driver replaces your standard Mac or Windows printer driver and offers several improvements. Installation of this driver requires a PostScript Printer Description (PPD) file for your printer, which allows the driver to control all of your printer's features, such as optional paper trays, enhanced imaging modes, and duplex (two-sided) printing. More instructions are included in the Read Me file that comes with the AdobePS software.

To download the latest AdobePS printer driver for the Macintosh, point your browser to <http://www.adobe.com/support/downloads/pdrvmac.htm>

To download the latest AdobePS printer driver for Windows, point your browser to <http://www.adobe.com/support/downloads/pdrvwin.htm>

Note: *Mac OS X, Windows 2000 and Windows XP include a native PostScript printer driver that supports OpenType .otf fonts.*

Installing OpenType .otf Fonts

All the information required for OpenType fonts is contained in a single file with an “.otf” suffix at the end of the filename. This font file is a cross-platform file, and can be installed on both the Macintosh and Windows platforms.

Installing on Mac OS

Using your fonts on Mac OS 8.6 to 9.2 or Mac OS X “Classic” requires the presence of ATM Light 4.6 or later (4.6.2 for Mac OS X Classic). Mac OS X has built-in support for OpenType fonts with carbon or native applications, and only requires ATM Light for “classic” apps.

If you are running Mac OS X, decide if you want to install fonts into both the Classic environment and the OS X native environment, or only for carbon/native applications. If you want your fonts to be accessible to *both* Classic and carbon/native applications, install into the Classic environment. If the fonts only need to be accessible to carbon/native applications, install into the Mac OS X “native” environment.

Mac OS 8.6 to 9.2, or Mac OS X “Classic”

- 1 Before installing your OpenType fonts, quit all active applications.
- 2 Locate the folder that contains the OpenType fonts you want to install.

If you have purchased OpenType fonts from Adobe online, they will have been decompressed to a folder on your hard drive. If you have purchased multiple font packages, each will have its own folder.

- 3 Copy or move all the OpenType font files from their individual font folders into the System Folder > Fonts folder. They must be loose inside this folder, not in a sub-folder.



The fonts are now installed and will appear in the font menus of your applications. OpenType fonts installed in Mac OS X Classic will also appear in the font menus of native and Carbon applications

Mac OS X native

Mac OS X has built-in support for OpenType .otf fonts. You do not need to install ATM Light to use fonts in the Mac OS X native environment, only for the Classic environment.

Fonts installed under the Mac OS X native environment will only be available to carbon and native applications running in OS X (not classic applications). Depending on how they are installed, they can be accessed by (a) any user or (b) just by an individual user.

- 1 Before installing your OpenType fonts, quit all active applications.
- 2 Locate the folder that contains the OpenType fonts you want to install.

If you have purchased your fonts online, they will have been decompressed to a folder on your hard drive. If you have purchased multiple font packages, each will have its own folder.

- 3 Copy or move all the OpenType font files from their individual font folders into either of the following locations. (Note that the fonts must be loose in the destination folder, not in a subfolder.)

(a) <Volume>/Library/Fonts/

Note: you must be logged on as an “Administrator” to place fonts in this location. Fonts in this location can be used by any user.

(b) <Volume>/Users/<username>/Library/Fonts/

Note: fonts in this location can be used only by the specified user.

The fonts are now installed and will appear in the font menus of Carbonized or native applications.

Installing on Windows

Installing your fonts on Windows 95/98, ME or NT 4 requires ATM Light 4.1 or later. Windows 2000 and XP have native support for OpenType fonts; you can use the operating system’s Fonts control panel to install or remove new OpenType fonts.

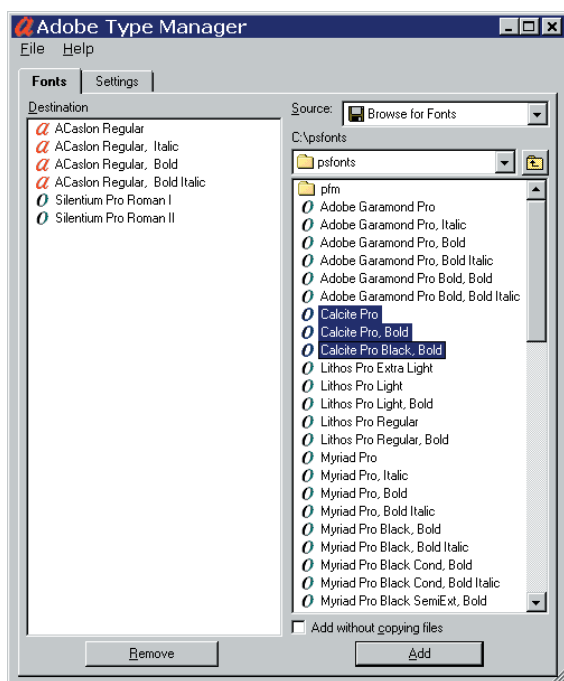
Windows 95/98/ME or NT 4 with ATM Light

- 1 Choose Start > Programs > Adobe > Adobe Type Manager.
- 2 In the ATM window, click the “Fonts” tab.
- 3 Choose “Browse For Fonts” from the Source pop-up menu.

- 4 Navigate to the folder that contains the fonts you want to install. The fonts located in a folder will appear below the folder's name.

OpenType fonts from Adobe purchased online will be in the location you decompressed them to.

- 5 Select the fonts you want to install. You can click to select one font, Control-click to select several fonts, or Shift-click to select a contiguous group of fonts.



- 6 Press the "Add" button to install the fonts.
- 7 Exit ATM.

The fonts are now installed and will appear in the font menus of your applications.

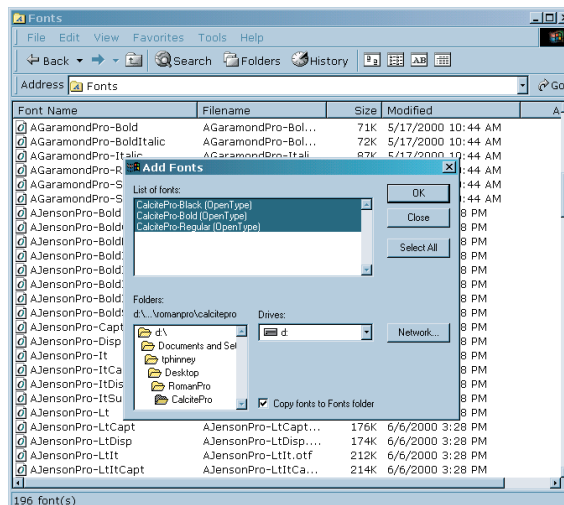
Windows 2000 and Windows XP

Windows 2000 and Windows XP (Home and Professional) have built-in support for PostScript Type 1 and OpenType fonts (both .otf and .ttf). Unless you wish to use multiple master fonts, ATM Light is not required on these OSes. Use the Windows Fonts control panel to install all PostScript Type 1, TrueType, and OpenType fonts.

- 1 Double-click on "My Computer." Then double-click on the "Control Panels" icon, and then the "Fonts" icon.
- 2 In the Fonts window, select the File menu, and choose "Install New Font."
- 3 Navigate to the folder that contains the fonts you want to install.

OpenType fonts from Adobe purchased online will be in the location you decompressed them to.

- 4 Select the fonts you want to install. You can click to select one font, Control-click to select several fonts, or Shift-click to select a contiguous group of fonts.



- 5 Press the "OK" button to install the fonts.
- 6 Close the Fonts control panel when you are finished.

The fonts are now installed and will appear in the font menus of your applications.

Removing OpenType .otf Fonts

Mac OS (all versions)

- 1 Open the folder you installed the fonts into.
- 2 Drag the OpenType font files that you want to remove out of the folder and into a non-system folder or into the Trash.

Windows 95/98/ME or NT 4

- 1 Choose Start > Programs > Adobe > Adobe Type Manager.
- 2 In the ATM window, click the Fonts tab.
- 3 Select the fonts you want to remove. You can click to select one font, Control-click to select several fonts, or Shift-click to select a contiguous group of fonts. You may also elect to copy the fonts to another location before deleting them.
- 4 Press the "Delete" button to remove the fonts.
- 5 Exit ATM.

Windows 2000 or Windows XP

- 1 Double-click on "My Computer." Then double-click on the "Control Panels" icon, and then the "Fonts" icon.

- 2 In the Fonts window, select the Fonts you want to remove, and choose “Delete” from the file menu. You can click to select one font, Control-click to select several fonts, or Shift-click to select a contiguous group of fonts. You may also elect to copy the fonts to another location before deleting them.
- 3 Close the Fonts control panel when you are finished.

OpenType and Font Management Utilities

Because OpenType .otf fonts are a new format, please check to make sure that the current version of your font management application supports OpenType .otf fonts. If you are using ATM Deluxe to manage your fonts, version 4.1 or higher for Windows and version 4.6 or higher for Macintosh support the activation and management of OpenType fonts. If you are using Extensis Suitcase, version 10 on Mac OS X manages OpenType fonts for Carbon and native applications. For further instructions on how to install OpenType fonts with ATM Deluxe or any other font management application, please refer to your font management application’s documentation.

Unicode and Access to Foreign Language Characters & Symbols

Applications and operating systems that make use of the Unicode standard for text processing can provide easy access to the wide range of accented characters and special symbols in OpenType fonts, greatly simplifying multilingual typesetting.

In environments where the operating system and ATM combination does not fully support Unicode (such as Windows 95/98/ME or Mac OS 8 and 9), applications will generally only have access to a single-byte encoding—essentially the first 256 characters—of an OpenType .otf font. The only exceptions are applications which provide their own font and Unicode support, such as Adobe InDesign and Photoshop.

Unicode support in Applications

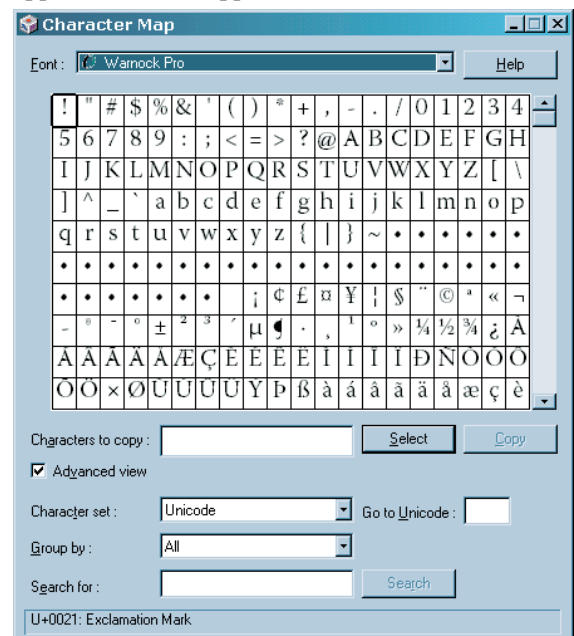
The operating system, sometimes aided by ATM, provides access to the characters of OpenType fonts for applications. In some cases, an application will provide its own basic character support (Adobe InDesign does this).

What is covered by basic character set access depends on the application as well as the operating system. For applications that support Unicode, such as Adobe InDesign, this basic character access may cover any language supported by the font. Applications that don’t support Unicode can still access and print the basic 256 characters of western languages—the Win-ANSI (code-

page 1252) or MacRoman range—although the fonts themselves may support additional languages.

OpenType fonts which are strictly “pi” or symbolic fonts may not have any characters in the Win-ANSI or MacRoman range. With such a pi font, if an application does not support Unicode, then none of the characters of the font would be accessible in the application.

All the Unicode-encoded glyphs in an OpenType font will show up in the Windows NT 4, Windows 2000 and Windows XP Character Map accessory, allowing direct copying and pasting of any OpenType glyphs into any application that supports Unicode. On Mac OS X, one can install and select a Unicode keyboard that allows direct access to any Unicode character, within most applications that support Unicode.

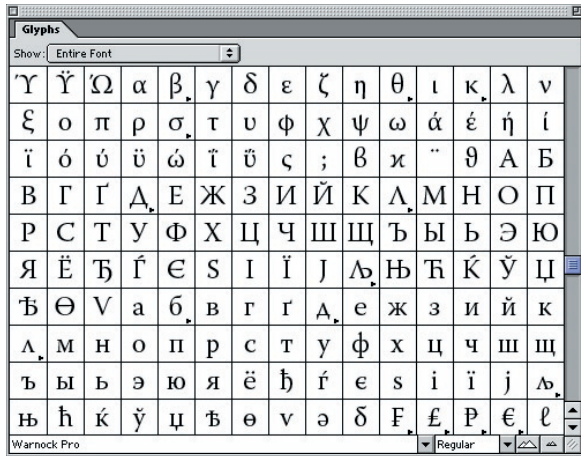


Switching between the character sets of the different languages supported by OpenType fonts can be as simple as changing the current keyboard language setting. This kind of “on-the-fly” keyboard switching with OpenType is supported by Windows NT 4, Windows 2000, Windows XP and Mac OS X. Additionally, the Windows NT, Windows 2000, and Windows XP “Character Map” accessory is Unicode-aware, and allows you to directly access any encoded character in an OpenType font.

Language switching in Adobe applications

In some current-generation Adobe applications, Unicode and language support are handled independently of the operating system. InDesign 2 and Photoshop 6 and 7, for example, support direct keyboard input of a wide range of languages, including Greek, Cyrillic, and other central and eastern European languages.

Adobe InDesign offers additional options for text input. All versions of InDesign support import of Unicode text files and Microsoft Word for Windows files containing Unicode. Additionally, as described below, InDesign's Glyph Palette allows access to any glyph in the font, even glyphs that are unencoded and not accessible in the Windows Character Map.



Platform-specific Mac and Windows Characters in applications

Applications with Unicode support in both their Mac and Windows versions, such as InDesign or Photoshop, as described above, can access any standard character on any platform. With these applications, you can create a file using any character on either platform, and continue to view and edit the same characters on the other platform. Similarly, Adobe Acrobat can view any characters embedded in a PDF file, regardless of platform.

However, many widely used applications are not as savvy, and can only access the standard single-byte character set for the current operating system. In some cases, such as Microsoft Office, the Windows version of an application uses Unicode fully, but the Mac version does not.

With these applications, this means that even though an OpenType font may have all the standard characters for both operating systems, the applications cannot access the Mac-specific characters when on Windows, or the Windows-specific characters when on the Macintosh. Therefore, you are advised against using platform-specific characters in such applications, if the document might need to be viewed or worked on on a different platform.

Note: The most common Mac-specific characters are the fi and fl ligatures, and some mathematical symbols, particularly those commonly substituted from the “Symbol” font. The most common Windows-specific characters are the ¼, ½ and ¾ fractions, and the superiors ¹, ² and ³.

Application Support for Advanced OpenType Features

Characters and Glyphs

The distinction between characters and glyphs is central to a discussion of advanced OpenType layout feature support. *Characters* are the code points assigned by the Unicode standard, which represent the smallest semantic units of language, such as letters. *Glyphs* are the specific forms or shapes that those characters can take in a font.

A key point is that one character may be represented by any of several different glyphs. For example, lowercase “a,” small cap “a” and an alternate swash lowercase “a” are all the same character—namely the lowercase “a”—but they are three separate glyphs.

a → a
a → A
a → a

Additionally, although the relationship between glyphs and characters is often one-to-one, it may be many-to-one, one-to-many, or many-to-many. For example, sometimes several characters may be represented by one glyph, as in the case of the “ffi” ligature, which corresponds to a sequence of three characters: f, f and i. Alternately, one character may be represented by several glyphs. For example, “é” is often considered a single character, but might be assembled on the fly from separate glyphs for the base character and the accent.

OpenType layout features can be used to position or substitute glyphs. For any character, there is a default glyph and positioning behavior. Applying layout features to one or more characters may change that default positioning or substitute a different glyph. For example, the application of the “small capitals” feature to the “a” would substitute the small cap “a” glyph for the usual lowercase “a” glyph.

OpenType Layout features

To access alternate glyphs or apply alternate positioning with an OpenType font, an application must understand OpenType layout features and present a user interface that allows end users to select and apply different layout features to text.

OpenType and Adobe Applications

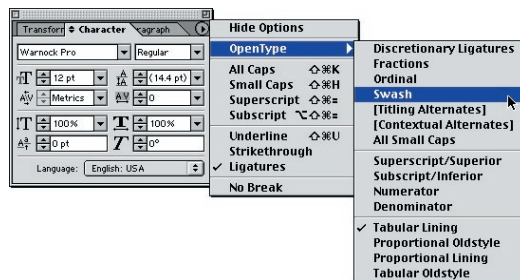
InDesign, Adobe’s flagship page layout program, was the first Adobe application to provide OpenType layout feature support. Photoshop 6 and higher also support a number of OpenType layout features, and other Adobe applications that support text formatting are expected to follow suit in the future. With InDesign, Photoshop and other OpenType-savvy applications, you can turn on OpenType layout features that automatically substitute alternate glyphs in an OpenType font, such as auto-

Although this section focuses on InDesign 2.0, it also provides information relevant for Photoshop 6 and InDesign 1.x.

matic ligatures, small capitals and proportional oldstyle figures.

Adobe InDesign 2.0 expands InDesign's previous OpenType layout feature support, simplifying the use of professional typographic features once considered cumbersome, and providing exciting new typographic capabilities.

While some layout features that work with multiple font formats (all caps, small caps, and ligatures) are on the main flyout from the InDesign character palette, most of InDesign 2.0's OpenType layout features are accessed by the OpenType sub-menu of the character palette flyout. There are 16 formatting options on this sub-menu, including discretionary ligatures, swashes, fractions, and four different types of figures, which are discussed in detail below.



To apply OpenType layout features

- 1 Insert your cursor in a text box to apply the feature to new text, or select existing text you wish to format.
- 2 Select an OpenType font from the Character palette or via the Type > Font menu.
- 3 In the Character palette, click on the triangle in the top right corner of the palette to open the flyout menu that lists possible formatting options.
- 4 Either select a formatting item on the main flyout that may activate OpenType features, or select the OpenType sub-menu, and a formatting option on that sub-menu.

A check mark will appear next to a feature that is turned on. If the OpenType font has the desired feature and glyphs, it will be applied. Remember that not all fonts have all OpenType layout features, and that some features work only on certain characters.

For example, text with the “Discretionary Ligatures” feature turned on will automatically replace certain character combinations such as “ct” or “st” with a ligature such as “cṭ” or “sṭ.”

If an OpenType layout feature appears in *brackets* [like this], then the currently selected font does not support that particular feature. To gain a better understanding of the features supported in each OpenType font, you

can use the Glyph Palette to view the glyphs available for each feature (see section below).

A *dash* next to an advanced OpenType layout feature means that you have selected a block of text that has an OpenType layout feature applied to *some* of the text. A *check mark* will appear next to a feature that is turned on for *all* the selected text.

There are three InDesign features which have an effect on non-OpenType fonts, but do more with OpenType fonts that have relevant layout features. These features—ligatures (which are on by default), all capitals, and small capitals—are directly accessible from the main flyout of the InDesign character palette. Photoshop 6 and InDesign 1.x have no OpenType sub-menu, and also put proportional oldstyle figures on the main menu.

In InDesign 2.0, these typographic features are included on the main pop-up menu because they can sometimes be used with non-OpenType fonts. See the individual feature descriptions for details.

Note: In Adobe InDesign, selecting the *Superscript* and *Subscript* options on the Character palette's main flyout will create these glyphs by scaling full-size numbers, even if the selected font contains designed superscript/subscript glyphs. To access designed glyphs contained in an OpenType font, you should instead use the “Superscript/ Superior” and “Subscript/Inferior” features on the OpenType flyout menu. See the feature descriptions below for details.

OpenType Layout Feature Descriptions

Below are descriptions of the OpenType layout features supported by Adobe applications, and guidance on how and when to use these features. InDesign 2.0 supports all the listed features; Photoshop 6 and InDesign 1.5 support all caps, small caps, proportional oldstyle figures and standard ligatures. Photoshop 7 adds discretionary ligature support.

Some effects similar to, but inferior to, OpenType layout features can be created synthetically by scaling regular-size glyphs. Because these effects do not use real, designed glyphs, these are referred to as “faux” effects (*faux* is a French word meaning “false”). Layout features which may have faux equivalents include small caps, fractions, ordinals, superscript/superior, subscript/inferior, numerators and denominators. For the best results, whenever possible you should access real designed glyphs via OpenType layout features.

All Caps: With both OpenType and other fonts, this formats the text in uppercase. With OpenType fonts, it also applies OpenType features for alternate uppercase positioning of punctuation, and spacing designed for all-cap use.

| | |
|---------------------------|--------------------|
| <i>typed uppercase</i> | ¿QUE? ‹ROMA-PARIS› |
| <i>formatted all caps</i> | ¿QUE? ‹ROMA-PARIS› |

Small Caps: With both OpenType and other fonts, this formats lowercase text as small caps. (Note: compare with “All Small Caps” feature below.) If the font has OpenType small caps, these will be used. If the font has a companion Expert Set font, InDesign may be able to tell that the font is associated with the base font, and use the small caps from the Expert font. In all other cases, small caps are synthesized from capital letters. Observe how these “faux” small caps look light and spindly next to the capitals, while the designed small caps match the appearance of their full-size siblings.

| | |
|------------------------|---------------------------|
| <i>faux small caps</i> | LIFE IS BUT A POOR PLAYER |
| <i>real small caps</i> | LIFE IS BUT A POOR PLA |

Ligatures: This activates any standard ligatures in an OpenType font (ligatures that the type designer suggests should be customarily used). In an OpenType font, these can be any ligatures the type designer chose to create. The major reason for standard ligatures is to avoid awkward collisions between letters, creating more elegant text (see example below). Standard ligatures are on by default in InDesign and Photoshop.

In non-OpenType fonts, this will activate any of the basic f-ligatures that are in the font. In many fonts, this is only the fi and fl ligatures, though InDesign may also recognize the ff, ffi and ffl ligatures if they are present.

Many Adobe Pro fonts include a large set of standard ligatures, such as fi, fl, ffi, ffl, ff, fj, ffj, Th, and others. Most other OpenType fonts from Adobe have a smaller set of standard ligatures, like those in Type 1 fonts.

| | |
|--------------------------|-------------------------|
| <i>without ligatures</i> | This office fjord halfb |
| <i>with ligatures</i> | This office fjord halfb |

Discretionary Ligatures: In Indesign 2.0, this activates discretionary and historical ligatures, both of which should be used sparingly for special effects. These ligatures may include ct, sp, st, and several historical “long s” ligatures such as fh. Only select OpenType fonts have discretionary and historical ligatures.

| | |
|---------------------------|------------------------|
| <i>without disc. lig.</i> | Most effential effects |
| <i>with disc. lig.</i> | Most effential effects |

Fractions: Turns on fractions. Some OpenType fonts from Adobe only have three basic pre-built fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$), while others have a larger set, often including $\frac{1}{8}$, $\frac{3}{8}$, $\frac{5}{8}$, $\frac{7}{8}$, $\frac{1}{3}$ and $\frac{2}{3}$. The extent of pre-built fractions may vary between fonts. Select OpenType fonts can also support any arbitrary fraction such as $1\frac{1}{12}$ or $7\frac{40}{12,597}$.

In all these cases, these designed fractions match the weight of the rest of the font better than fractions which are fauxed by scaling regular-size numbers.

Note: You should only apply the fraction feature to the specific text you want to turn into a fraction. Applying the fraction feature to other numbers may result in unexpected effects—either initially, or later if the text is switched to a different font with a different implementation of fractions.

| | |
|-----------------------|---|
| <i>faux fractions</i> | $1\frac{1}{8}$ $3\frac{1}{2}$ $\frac{22}{7}$ $5\frac{11}{12}$ $8^{1,234}_{4,567}$ |
| <i>real fractions</i> | $1\frac{1}{8}$ $3\frac{1}{2}$ $\frac{22}{7}$ $5\frac{11}{12}$ $8^{1,234}_{4,567}$ |

Ordinals: Contextually switches regular glyphs to designed superscripted glyphs, such as the “st” in 1st, “nd” in 2nd, and so on. Virtually all Adobe fonts have the masculine and feminine ordinals required for Spanish segunda/segundo (2^a, 2^o), but not all have the full set of superscripted glyphs needed for English ordinals. In OpenType fonts from Adobe, the № (number) character and the “h” required for ordinals such as “4th” are generally present only in Pro fonts.

Some applications, such as word processors, can automatically synthesize ordinals by scaling regular letters. As always, real designed ordinal glyphs are a better match for the full-size numbers than the faux ordinals created by simple scaling.

| | |
|----------------------|---|
| <i>faux ordinals</i> | 1 st 2 nd 3 rd 4 th 2 ^a 2 ^o |
| <i>real ordinals</i> | 1 st 2 nd 3 rd 4 th 2 ^a 2 ^o |

Note: Because some ordinal combinations may occur in normal text (such as “No” in “None”), the ordinal feature should not be applied globally, but only where needed. Also, because of their constant vertical position, ordinals work best with lining figures, rather than oldstyle figures.

Swash: substitutes swash glyphs (stylized letterforms with extended strokes; see below). Even if this feature is globally turned on, it may only apply swashes in certain cases, such as when a character is at the end of a word. Swashes should be used sparingly for special effect. Only select OpenType families contain swash glyphs, and in families which do contain swash glyphs, they are often present only in the italic faces within the family.

| | |
|----------------------|--------------------|
| <i>without swash</i> | Aidan Sue Veronica |
| <i>with swash</i> | Aidan Sue Veronica |

Titling Alternates: substitutes specially-designed glyphs to be used for large-size settings such as titles, usually all in capitals. Only select OpenType fonts from Adobe have titling alternates.

| | |
|------------------------|----------------|
| <i>without titling</i> | FINESSE BEAUTY |
| <i>with titling</i> | FINESSE BEAUTY |

Contextual Alternates: substitutes alternate glyphs and ligatures that only occur depending on what letters are nearby. This feature is on by default in InDesign 2.0. Contextual forms can have striking effect in those select OpenType fonts that make use of them. For example, Cafilisch Script Pro (below) uses contextual forms to create variety and a realistic calligraphic handwriting appearance.

| | |
|---------------------------|--------------------------------|
| <i>without contextual</i> | <i>new azaleas bloom where</i> |
| <i>with contextual</i> | <i>new azaleas bloom where</i> |

All Small Caps: Unlike the traditional small caps feature, which only turns lowercase into small caps, this substitutes small capitals for all characters typed or selected, including uppercase as well as lowercase letters.

All small caps should be used instead of small caps whenever the underlying text is uppercase, as with certain acronyms and abbreviations such as USA, UNICEF, FBI, GDP OR MADD. (See also “Small Caps,” previous.)

Superscript/Superior: substitutes designed superscripted glyphs. These designed glyphs match the weight of the regular letters and numbers better than synthesized (faux) superscript glyphs. Note that the select OpenType fonts from Adobe which support this feature do not have all characters available in superscript form. Instead, they generally have the letters “*abdeilmnorst*,” plus a full set of numbers and basic punctuation. Pro fonts generally add the “*h*” as well. This subset of the alphabet represents all the characters needed for ordinals and common superscripting needs in western languages.

| | |
|-------------------------|----------------------------|
| <i>faux superscript</i> | $x^{14}y^{37} \pi r^2 4^a$ |
| <i>real superscript</i> | $x^{14}y^{37} \pi r^2 4^a$ |

Subscript/Inferior: Much like superscript (above), but for subscripted characters. However, the select Adobe fonts which support subscripts generally have only numbers and punctuation, with no letters.

| | |
|-----------------------|--|
| <i>faux subscript</i> | H ₂ 0 CH ₄ n ₃₇ |
| <i>real subscript</i> | H ₂ 0 CH ₄ n ₃₇ |

Numerator: substitutes designed numerator glyphs (the top part of a fraction) for numbers. Those OpenType fonts from Adobe that support this feature generally have a full set of digits and basic punctuation in numerator form. However, it is generally more convenient to simply apply the fraction feature.

Denominator: Just like numerators, but for denominators (the bottom part of a fraction).

Figure (number) Types: *Tabular* figures are all of equal width. They are only needed when the figures must all line up from one line to the next, as in a table. *Proportional* figures have varying widths, just like most letters; each number has a width appropriate to its design. Unless there is a special need for tabular figures, you should use proportional figures.

Lining figures are all the same height, usually similar to that of capital letters. They are needed only for use with all-capital settings, or when a particularly modern look is desired. *Oldstyle* figures are of varying height. They are appropriate for use with lowercase or mixed-case text, and especially if a classic or refined look is desired.

| | | |
|---------------------|---------------|-----------------|
| | <i>lining</i> | <i>oldstyle</i> |
| <i>tabular</i> | 0123456789 | 0123456789 |
| <i>proportional</i> | 0123456789 | 0123456789 |

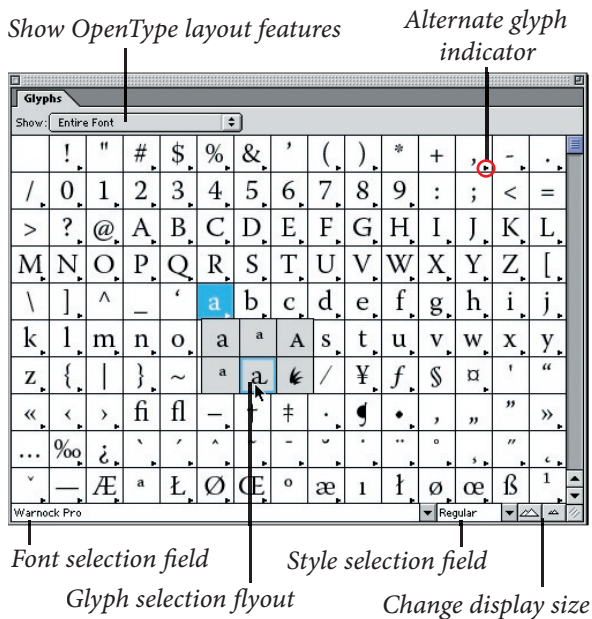
Default figures are whichever type are encoded as the standard figures in the font. For historical reasons, these will be tabular lining figures, though the decision is up to each font manufacturer. Because tabular lining figures are not the best choice for most documents, we recommend actively choosing figure types for each particular usage.

The Glyph Palette

While OpenType layout features are primarily accessed via the OpenType menu, Adobe InDesign also allows you to view and access all of the possible glyphs and layout features in an OpenType font through a single window.

- 1 Insert your cursor in a text box.
- 2 Select Type > Insert Glyphs... The Glyph Palette will appear.
- 3 Select a font in the font selection field. Select the appropriate font weight or style in the style selection field. All of the possible glyphs in the font will appear.

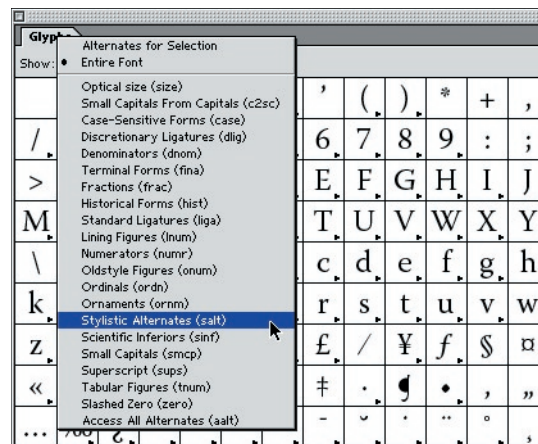
You can also click on the size icons to increase or decrease the point size of the glyph samples in the window.



If there are alternate forms of a glyph available via an OpenType layout feature, a small triangle will appear in the lower right corner of the glyph cell. Clicking and holding on such a glyph cell will activate a flyout showing all the alternate glyphs.

- 4 Double click on a glyph cell, or if there is a flyout, click-hold and select the desired alternate glyph. The glyph will then be inserted in your document wherever your text cursor was positioned.

You can filter the glyphs displayed in the dialog by using the OpenType layout features pop-up menu. This pop-up menu will display all of the substitution features supported by the currently selected OpenType font. After



choosing an OpenType font in the font selection field, select a layout feature, such as discretionary ligatures or swash, from the pop-up menu and the dialog will display only those glyphs that are available through that layout feature.

You can view only the alternate glyphs available for a single selected glyph in your InDesign document by selecting “Alternates for Selection” from the “Show” pop-up menu of the Glyph Palette. (If more than one glyph is selected, the Glyph Palette will show no alternates.)

InDesign will remember the last OpenType layout feature you used the next time you activate the Glyph Palette. To return to a view of all the glyphs in the font, select Entire Font from the pop-up menu. For more information about the Glyph Palette, please refer to the InDesign documentation.

Note: Adobe advises selecting alternate glyphs by applying formatting or by “filtering” the glyph palette, when possible, rather than using an alternate glyph from the flyout. These methods yield more consistent results when changing fonts.

© 2000–2002 Adobe Systems Incorporated and its licensors. All rights reserved.

Adobe OpenType User Guide v20, 8 August 2002

This manual, as well as the software described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. The content of this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Adobe Systems Incorporated. Adobe Systems Incorporated assumes no responsibility or liability for any errors or inaccuracies that may appear in this book. Except as permitted by such license, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Adobe Systems Incorporated.

Adobe, the Adobe logo, Adobe Garamond, Adobe Type Manager, ATM, Caflich Script, Calcite, Illustrator, InDesign, Lithos, Minion, Myriad, Photoshop, PostScript and Silentium are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Apple, Macintosh, Mac OS, Power Macintosh,

and TrueType are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. PowerPC is a registered trademark of IBM Corporation. Pentium is a registered trademark of Intel Corporation. Microsoft, Windows, Windows NT and OpenType are either registered trademarks or trademarks of Microsoft Corporation in the U.S. and/or other countries. All other trademarks are the property of their respective owners.

Adobe Systems Incorporated, 345 Park Avenue, San Jose, California 95110-2704, USA.

Notice to U.S. government end users. The software and documentation are “commercial items,” as that term is defined at 48 C.F.R. §2.101, consisting of “commercial computer software” and “commercial computer software documentation,” as such terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202, as applicable. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §227.7202-1 through 227.7202-4, as applicable, the commercial computer software and commercial computer software documentation are being licensed to the U.S. government.