

# Adobe<sup>SM</sup> Customer Services

## Basic Type Information

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### **AFM**

Adobe Font Metrics. A text file that defines metric and pair kerning information. AFM files can be used by ATM™ and Font Foundry™ programs.

### **ASCENDER**

The portion of a lowercase character that rises above its x-height. For example, b, d, h, k, and l. See the illustration on page 8 of this tech note.

### **ADOBE TYPE GUIDE**

An attractive upright dictionary/handbook. Included are complete character sets for the standard weight face of a font family and its italic and reduced character sets for other weights in that family. Adobe Type Library packages, up to package 235, are featured in a two-volume set. Volume I contains packages 1 through 123. Volume II contains packages 124 through 235. The two-volume revision appeared in the spring of 1992 and is available through Adobe Sales for \$40 (Volumes I and II).

### **ADOBE TYPE MANAGER™**

A system software utility that generates type at any size from Type 1 outline fonts. ATM software belongs to a category of software programs called *type rasterizers*.

### **BASELINE**

The imaginary line that runs under each character. This does not pertain to characters that have descenders, such as g, p, and q. See the illustration on page 8 of this tech note.

### **BITMAP FONT**

A pattern of dots (bits) that closely resembles a character shape in a given typeface, point size, rotation and resolution. Bitmapped characters used as screen fonts tend to be jagged, as opposed to smooth characters generated from outlines. Bitmaps cannot be scaled without distortion and require considerable storage space.

### **CAP HEIGHT**

The height of a capital letter from the baseline to the top of the letter. See the illustration on page 8 of this tech note.

### **CONDENSED**

A term commonly used to describe a typeface designed to be thinner and more compact. These designs are drawn just as the designs for regular typefaces are drawn. They are not produced by mathematical scaling.



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**COUNTER**

The white space within a character such as b, p, and d. See the illustration on page 8 of this tech note.

**DESCENDER**

The portion of a letter falling below the baseline. See the illustration on page 8 of this tech note.

**DISPLAY TYPE**

Type, such as that in a headline, which, by its size or weight, is used to attract attention. It is usually 14 point or larger.

**DOWNLOADING**

The process of transferring outline font data from the computer to the printer's memory or hard disk. Adobe PC fonts ship with three PostScript™ downloaders: PCSEND, PSDOWN, and WINDOWN.

**FIXED PITCH**

See Monospace.

**FONT**

A complete collection of letters, figures, symbols, punctuation, and special characters in a particular typeface. A font describes a specific design of an alphabet at one size and one typeface.

**FONT FOUNDRY**

A utility that converts Adobe Type 1 fonts into Hewlett-Packard® PCL (Printer Control Language) fonts. Font Foundry generates nonscalable (bitmap) screen and printer fonts. These fonts are compatible with PCL level 4 and level 5, which means they will work with HP® LaserJet® II, III, and IV printers.

**HINTING**

Special subroutines built into the outline font program. They make fonts more legible at small point sizes and laser printer resolutions.

**INF**

PC Font information file used by ATM and Font Foundry programs.

**ITALIC TYPEFACE**

Type that is designed to complement Roman typeface. Italic type is angled to the right.

**KERNING**

Manually spacing letters closer together than originally designed. See the illustration on page 8 of this tech note.

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## KERNING PAIRS

Adding or reducing space between characters to make the spacing more attractive and readable. Adobe fonts have between 100 and 2000 kerning pairs per font. The more kerning pairs, the better the type will look—but only if the application makes use of them. Applications that use the kerning information are QuarkXPress®, PageMaker® and FrameMaker®. Microsoft® Word and WordPerfect® are popular word processors that do not make use of pair kerning. See the illustration on page 8 of this tech note.

To find out how many kerning pairs are in a font and which specific characters are supported, look in the font's AFM file. The number of kerning pairs will be listed.

## LANDSCAPE

Printing across the length of the page so that the top of the document is the wider side.

## LEADING

See Linespacing.

## LIGATURE

Two or more characters formed together as a single character, for example, fi and fl. Ligatures are typographic refinements to bring elegance to the document.

## LINESPACING

White space or vertical space between lines of type, also referred to as *leading*. Points are also used to specify leading, which is measured from baseline to baseline. (The term *leading* comes from the days of metal type, when strips of lead were used to add space between lines.)

When specifying type size and leading, typesetters write a fraction in which the type size is the numerator and leading is the denominator. For example, text that is written as 12/14 or 12.14, uses 12-point type and 14 points of leading. This combination is also referred to as “twelve on fourteen” or “twelve over fourteen”.

## MEASURING TYPE

The typographic world also has its own units of measurement. These measurements include the following:

- *Point*: A unit equal to 1/72 inch. (A traditional typesetter's point was 1/72.27 of an inch.)
- *Pica*: A unit equal to 12 points. Picas are often used to specify the width of columns.
- *Em*: A unit of horizontal space equal to a square lead base of the type size. For example, in 10-point type, an em is 10 points wide and 10 points high. In the typesetting world, em spaces are often used to specify the size of paragraph indents.
- *En*: A unit of horizontal space equal to half of an em space.

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In general, applications use a point as its basic unit of measure. Keep in mind that

*point = 0.01383 of an inch*

*6 picas = 1 inch*

*72 points = 1 inch*

Points are used to specify the vertical size of type. In a 72-point typeface, there are approximately 72 points of space between the lowest descender and the highest ascender (including leading). Type can be measured from the highest ascender on one text line to the highest ascender of the next line. Type can also be measured from the baseline of one text line to the baseline of the next line.

### **MONOSPACE**

Refers to uniform horizontal spacing between characters in a font. The width of each character including the space character is exactly the same. On a typewriter, every character has the same width; a lowercase *i* uses as much horizontal space as an uppercase *M*. Fonts whose characters are spaced in this way are called *monospaced fonts*.

Monospaced fonts are fine for typewriters, but they aren't as legible as proportional fonts—fonts whose widths vary. Adobe currently has four monospaced body-text fonts (Courier, Prestige Elite, Letter Gothic, and Orator) and three special-purpose monospaced fonts (OCR A, OCR B, and MICR).

### **NARROW**

A term used by Adobe Systems Incorporated to identify a typeface that has been mathematically compressed in the x-dimension to achieve the look of a condensed font. A typeface produced by mathematical scaling is referred to as an *algorithmically generated typeface*.

### **NUMBER FONTS**

Some typefaces, such as the Helvetica Neue, Linotype Centennial, PMN Caecilia, and Univers families, have numbering systems associated with them. These numbers were defined by the designer creating the face in an effort to quantify type weight and width for a large number of faces.

The scheme works as follows: A two-digit number signifies the weight and amount of compression or extension of the font. The first digit is the weight, with low numbers being light and higher numbers being dark. The second number signifies width, with low numbers being extended and high numbers being condensed.

### **OBLIQUE TYPEFACE**

A typeface that has been slanted geometrically.

### **ORIENTATION**

Defines the direction of print across a page, either landscape or portrait.

### **OUTLINE FONT**

See PFB.

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**PCL**

Printer Control Language, designed by Hewlett-Packard. It is used in Hewlett-Packard LaserJet II, III, and IV printers.

**PERMANENT STATUS**

A condition by which fonts reside in the printer memory. Permanent fonts remain in memory until the printer is turned off.

**PFB**

Printer Font Binary or Outline font. A file that contains the description of each character in a typeface. PFB files are used by PostScript printers, typesetters, slide printers, ATM, and Font Foundry. They are mathematical descriptions—by anchor points, curved lines, and straight lines of characters—in the PostScript language. Because each character is described mathematically, it may be scaled (sized) infinitely without loss of definition. No metric information is contained in a PFB file.

**PFM**

Printer Font Metric. A font metric file used by Microsoft Windows.

**PI FONT**

A font made up of special characters such as symbols or mathematical characters.

**Pica**

A measure of type equal to 12 points. The Postscript pica equals one-sixth of an inch.

**PITCH**

Pitch describes the number of characters printed in a horizontal inch. This terminology dates from the typewriter era and is also used with daisy wheel printers.

The most common pitch values are 10 pitch and 12 pitch. Ten-pitch type is also called *pica*, and it is spaced at 10 characters per inch. Twelve-pitch type is called *elite*, and it is spaced at 12 characters per inch. Elite is the most common size in typing. *Micro-elite* is 15-pitch type, and it spaces with 15 characters per inch; it is not commonly used.

Customers who must have a font in 10- or 12-pitch type can use one of our four monospaced fonts: Courier, Letter Gothic, Prestige Elite, or Orator. To get 10-pitch type, use the font at 12 point. For 12-pitch type, use it at 10 point.

**POINT**

Typographic unit of measuring the size of fonts, linespacing, rules, and borders. One point is 1/72 of an inch. A pica is made up of 12 points. There are 6 picas to an inch. A font is measured from the top of the uppercase letter to the bottom of the lowercase letter. This includes the small amount of space above the top of the upper case letter. The small amount of space is used to separate lines of type.

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**POINT SIZE**

The height of a character.

**PORTRAIT**

Printing down the length of the page so that the top of the document is the narrower side.

**PRINTER RAM**

Users are often confused by the amount of RAM that is available for font downloading in a laser printer. A typical printer with 2 megabytes of RAM has approximately 425K of virtual memory available for downloaded fonts. A printer with only 1.5 MB of ram has about 170K available, and a printer with 8 MB more than 2100K. Only a fraction of the printer's total RAM is available for downloadable fonts; the rest is reserved for rasterizing the fonts themselves, and for page rasterization.

**PROPORTIONAL SPACING**

Refers to uniform horizontal spacing between characters in a font. The width of each character, including the space character, varies with the shape of the character. Proportional fonts are easier to read and are preferred for publishing applications.

**RASTERIZING**

The process of converting outline characters into bitmaps at the resolution of the target display or printer.

**RESOLUTION**

The number of dots per inch used to create an image.

**ROM**

Read Only Memory. Base 35 fonts in a PostScript printer are often referred to as ROM resident.

**ROMAN**

Upright typeface design.

**SANS SERIF**

Category of typefaces without short lines crossing the main strokes of a character (sans means without).

**SCALING**

The ability to print any single font in a variety of sizes.

**SCRIPT**

Category of typefaces that emulate hand lettering.

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## SERIFS

Short lines crossing the main strokes of a character. See the illustration on page 8 of this tech note.

## SOFTFONTS

A typeface that comes on disk. It can be installed to your computer and downloaded to the printer. A softfont is usually used, sent, or downloaded to the printer memory for printing a document.

## SPACING

See fixed and proportional spacing.

## STEM

The vertical portion of a character. See the illustration on page 8 of this tech note.

## TSR

Terminate Stay Resident program. A program that is active in RAM as long as the computer is turned on.

## TYPE 1

Technology (developed by Adobe) for font formats that has been available and in widespread use since 1984. Type 1 has become an industry standard, but other font formats have been developed using different outline font technologies. As does Type 1, many of them provide font scaling on both computer displays and hard-copy output devices. The majority of Type 1 fonts contain hints, and all outline files (PFB) are compressed text files. Adobe PC font packets contain AFM, INF, and PFB files.

## TYPE 3

An outline font format introduced by Adobe. The Type 3 format is also Adobe's PostScript program, but it does not contain hints. Type 3 fonts are also called *user-defined fonts*, and are useful for describing complex graphic shapes, such as a logo. Type 3 fonts are in uncompressed text file format and are not supported by ATM.

## TYPEFACE

A specific or unique design of an alphabet. A typeface describes how thick or thin the letters are drawn, the width of the characters, the angle they face, the height of the lowercase letters, and how deep the vertical lines drop below the lowercase. There are hundreds of different designs; some date back centuries. Designs include ITC Stone Serif, Palatino Italic, and Futura Bold Condensed. In a family, such as the Adobe Garamond™ family, there are different styles, such as regular, italic, bold, bold-italic, semibold, and semibold-italic. Each style can be considered a typeface.

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## TYPEFACE FAMILY

A range of typeface designs that are variations of one basic style. In most applications, a type family often contains four styles. Adobe sells many fonts that contain more or less than the common four:

- Roman, the upright version of the typeface. On the PC, the roman style is called *normal* or *regular*.
- Italic, a calligraphic variant often used for emphasis.
- Bold, a heavier version of the roman style, often used for headings.
- Bold italic, a bold version of the italic style.

## WIDTH

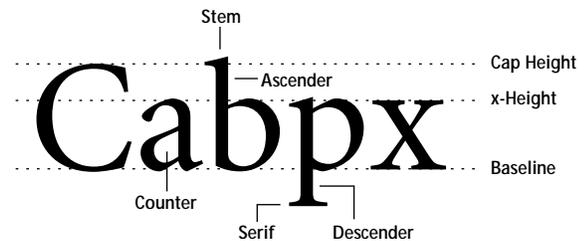
The amount of horizontal space required by a character or symbol in a font.

## WEIGHT

The heaviness of the characters in a typeface (for example, light, medium, bold).

## X-HEIGHT

The height of lowercase characters in a font (excluding ascenders and descenders). See the illustration below.



Kerning Pair



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