Adobe℠ Customer Services

ATM™ and Type 1 Fonts: Installing and Understanding

To help your Adobe PostScript™ fonts and Adobe Type Manager™ operate seamlessly no matter which system version you use, we will describe the role of bitmapped fonts, outline fonts, and ATM.

When considering an upgrade to the latest version of the operating system, be sure that all of your software is compatible. Even less frequently used programs like virus checkers and games can create major problems if precautions are not taken.

GLOSSARY OF ICONS

System File (System 7™)   *System File (System 6)*   *Bitmapped Font Suitcase*   *Bitmapped Font File (System 7)*   *Outline Font File*

Bitmapped Fonts:

Bitmapped fonts (Screen Fonts) serve two purposes: They provide screen pictures to your applications of what certain fonts look like at specific sizes (usually 10, 12, 14, 18, and 24 points); and, when applications are launched, they read the system for installed bitmappped fonts and build the font menu from this information. These bitmapped fonts can be installed in the system file with a font utility or in the System 7.1 Fonts folder. To use a font size in your application different from those sizes installed, the operating system will scale the nearest bitmap size to approximate the requested size on the screen — unless you have ATM (see next page).

Bitmapped fonts for both System 6 and System 7 have numbers appended to the ends of their names. Numbers correlate with the bitmap sizes contained in the bitmap file. For example, the Adobe Garamond™ Bold 18 file describes the appearance of all characters in the Adobe Garamond Bold typeface when displayed at 18 point size. Bitmaps of many sizes and styles are usually grouped together within a single suitcase file. Under System 6, the contents of suitcase files may be examined with the Font/DA Mover, version 3.8 or later. Under System 7, double-clicking on a suitcase file will open the file and display the bitmaps, just as if the suitcase file were a folder.

Outline Fonts:

Outline fonts (Printer fonts) contain mathematical descriptions of each character in a type-face's character set. This description applies to all sizes. All Adobe PostScript outline fonts have the distinctive slanted A icon with horizontal lines in the background. PostScript printers have the ability to scale outline fonts to produce high quality, high resolution output. With ATM installed, outline fonts make it possible to display all sizes of text at maximum screen resolution, as if bitmaps for all possible sizes were available.

ATM:

Adobe Type Manager is technically referred to as the PostScript fonts rasterizer. This means that ATM knows how to combine bitmapped fonts and outline font data to display smooth bitmaps of any size to a computer screen and/or to QuickDraw™ printers. In order for ATM to work, the control panel device, the appropriate driver for your Macintosh, the outline font, and the bitmapped fonts must all be correctly loaded onto your Macintosh. If any of these files are missing, ATM will not work.

ATM has two components: the Control Panel Device (cdev) and the driver. If your Macintosh uses a 68000 chip (Plus, Classic®, Portable, PowerBook™ 100, or SE), install the ~ATM 68000 driver. If your Macintosh uses a 68020, 68030, or 68040, install the ~ATM 68020/030 or ~ATM 68020/030/040 driver. All Macintoshes use the same control panel device.

Type 1 and TrueType fonts

Type 1 fonts have been around as long as the Macintosh and are still the standard for professional publishing, including PostScript printers and service bureaus. There are thousands of Type 1 fonts available and hundreds of new Type 1 fonts are introduced each year by Adobe, Linotype-Hell®, Bitstream®, and others. TrueType™ fonts were introduced recently (1991) and are now supplied with the Macintosh System software and are used primarily by low-end users.

Use fonts of both formats in your system simultaneously, but for application compatibility, performance, and conformance with worldwide standards, remove the TrueType fonts with their bitmaps and install the Type 1 fonts (bitmaps and outlines) from your original disks. See the technical note "TrueType™ and Adobe Type Products" for more information and instructions on removing TrueType fonts.

Note: Adobe Illustrator™ 3.2.3 and older versions require Type 1 fonts and ATM to convert type into outline art.

VERSION HISTORY

Following is a summary of changes Adobe has made to ATM over time. See the end of this technical note for upgrade information.

ATM 2.0
- Approximately twice as fast as previous version (1.2).

- Searches for outline fonts in the root level of the system folder.

ATM 2.0.2
- Searches for outline fonts in the Extensions folder and loose in the System folder.

- 32-bit clean.

ATM 2.0.3
- Same capabilities as ATM 2.0.2.

- Works with Quadra™, Centris, and other 68040-based Macintoshes.

- Does not work on an accelerated SE or Plus (use 2.0.2).

ATM 3.0
- Same capabilities as ATM 2.0.3.

- Includes support for Multiple Master fonts.

- Searches for outline fonts in the Font folder, Extensions folder and loose in the System Folder.

ATM 3.5 (SuperATM™)
- Same capabilities as ATM 3.0.

- Font Substitution – creates substitute fonts for missing Adobe fonts on-the-fly. For more information on SuperATM see the technical note "SuperATM Overview and Troubleshooting."

ATM 3.5.1
- Same capabilities as 3.5.

- Minor bug fixes for ATM 3.5.

- Shipped with Multiple Master fonts.

- Supports font substitution with installation of ATM font database.

ATM 3.6
- Same capabilities as ATM 3.5.1.

- Provides support for Acrobat.

- Supports font substitution with installation of ATM font database.

ATM 3.6.1
- Same as 3.6.

- Minor bug fixes for ATM 3.6.

INSTALLATION

Below is a table summarizing font and ATM installation for the different versions of the operating system.

File Name	System Version	Correct Location is:
~ATM	6.0x	Loose in the System Folder
	7.0, 7.1	In the Control Panels Folder
~ATM 680xx	6.0x, 7.0x, 7.1	Loose in the System Folder
Bitmapped Fonts	6.0x	System File. Use DA Mover or bitmap font utility
	7.0	System File. Drag and drop bitmap file or suitcase file onto closed System Folder icon
	7.1	Fonts Folder. Drag and drop bitmap file or suitcase onto closed System Folder icon
Outline Fonts	6.0x	Loose in the System Folder
	7.0x	Loose within the System Folder (all versions) or in the Extensions folder (ATM 2.0.2 or later)
	7.1	Loose within the System Folder (all versions) or in the Extensions folder (ATM 2.0.2 or later) or in Fonts folder (ATM 3.0 or later)

For information about installing fonts using Suitcase™, see the technical note "Installing Fonts with Suitcase."

DO I NEED TO UPGRADE?

• If you are using 1.0.x, you need to upgrade.

• If you are using System 6.0.x and have ATM 2.0 or higher, you *do not* need to upgrade.

• If you are using System 7.x and want to use 32-bit memory addressing, you need ATM 2.0.2 or higher.

• If you have a Quadra or Centris Macintosh, you need version 3.6 or higher.