
Sebastian Kempgen



MacCampus®
Macintosh-Font-Basics

**Bitmaps • TrueType • PostScript
Screen-Fonts • Printer-Fonts
Keyboard Drivers • WorldScript
Installation for System 6 and 7**



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Preface

This manual is part of all MacCampus font packages and complements all font-specific information you may have received for an individual package.

In this manual, you'll find

Contents

- Macintosh basics which are relevant for handling fonts (installation, use etc.);
- technical information concerning Macintosh fonts (font formats like Type 1, TrueType, bitmaps etc.);
- instructions for installing fonts under System 6 (and earlier) or System 7 (or later);
- instructions for installing keyboard drivers under System 6 (and earlier) or System 7 (or later).
- information about ATM (Adobe Type Manager)

etc.

If you are an experienced Macintosh user, most of these things will already be familiar to you. But even then this brochure might offer something new to you!

If you are new to the Macintosh, we hope this booklet will get you started using our fonts quickly.

Suggestions for further improving this brochure are always welcome!

Dr. Sebastian Kempgen

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1.1 Macintosh Basics

It's easy to install and use fonts, but it may be useful to remember a few things first:



System folder under System 7 (before, just a plain folder without the small Mac icon). Installing fonts means to copy them into this folder; where exactly they belong depends on the version of the System you are using (System 6, System 7.0, System 7.1). The System folder can be opened by double-clicking on its icon; it will then reveal its contents which may be individual files and additional folders. All sub-folders within the System folder are created by the Mac or application programs, never by the user!



System file: This is a separate single file within the System folder. It contains important resources without whom the Mac cannot work. The System file must not be moved to a sub-folder of the System folder – this would make it invisible and would lead to a crash. Pictured here are the System files from System 6 (above) and System 7 (below). Under System 6 and System 7.0 (but not from System 7.1 onwards) fonts are installed inside this file. The System 7-suitcase may be opened by double-clicking on its icon; it will then show some of its contents (sounds, fonts, keyboard drivers). Double-clicking on the System 6 System file does not trigger any action besides bringing up a dialog box.



Finder: The Finder is another very important part of the System folder; without it, the Mac will normally not start (some third-party recovery start-up disks are a common exception). The Finder really is nothing than a program which runs first after the Mac is switched on. The Finder is responsible for putting the “desktop” on the screen, among other things. Under System 7, the Finder is always active (it may be replaced by “At Ease” under certain conditions). Under System 6, the user may choose to always keep the Finder active (this is called “using MultiFinder”) or not. Under System 7, the Finder will do the actual installation of fonts.



Font/DA Mover: This is a separate program which under System 6 was part of the System disks supplied by Apple. Its purpose is to install fonts and “desk accessoires” (DAs) into the System file (or remove them from there). Double-clicking a font suitcase under System 6 starts this program which then opens the suitcase in one of its two windows. Under System 7, this program is no longer needed; nearly all of its functions have been taken up by the Finder (the exception being to create a new suitcase).

1.2 ATM (Adobe Type Manager)

ATM is one of the most widely used additions to the Mac System. Whether you *have* to use ATM, *should* use ATM or don't need it at all, depends on several factors. ATM consists of several files:

a
~ATM™

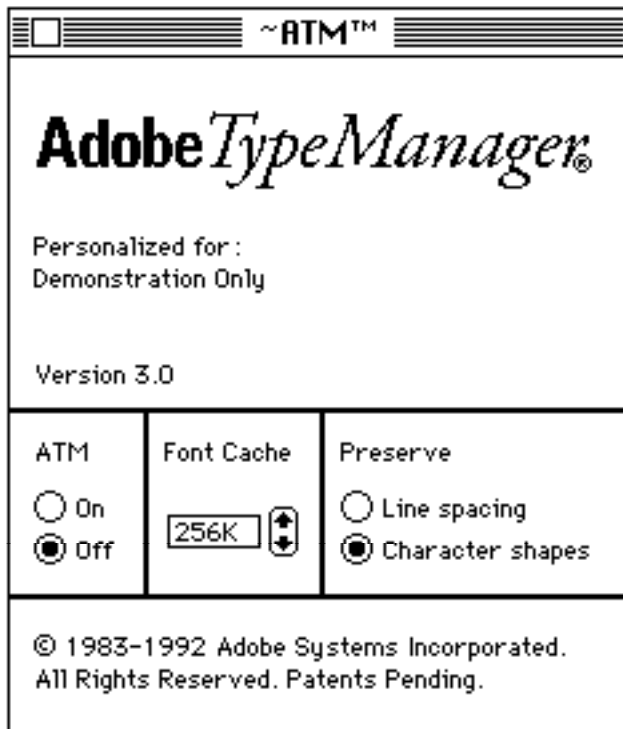
ATM control panel: This file has to reside inside the folder called "Control panels" within the System folder. To open it, go to the Apple menu and select "Control panels".

a
~ATM 68020/030

ATM processor-specific file: This is a file required by the ATM control panel. Of the two files supplied with ATM, please install the one appropriate for your Macintosh. (Although Quadras have a '040 processor, this file shown here will be the correct one for them.)

Use: After installation, please open the ATM control panel before trying to use it (Apple menu, Control panels).

Under **System 6** a list will appear which will show ~ATM at its very end. Klick *once* on it to bring up the dialog box shown at left.



Under **System 7** a window opens showing all control panels. Locate ATM and double-click on it to bring up the dialog box.

If you want to use ATM:

Select "On", and click on "Preserve Character Shapes", if you are using foreign language fonts.

If you have changed any options from their previous settings, you must restart your Macintosh for the new settings to become effective.

Versions: During the course of time, several versions of ATM have been developed and distributed. System 7.1 requires at least version 3.0. "Super ATM" contains version 3.5.

1.3 TrueType Init



Function: ATM works with PostScript Type 1 fonts only. It reads the outlines contained in the printer fonts and does two things: It uses these outlines to temporarily create screen-fonts for all required point-sizes other than those installed. When printing to non-PostScript-printers (ImageWriter, StyleWriter etc.) ATM also generates the pixels which the Mac sends to the printer at the resolution supported by the printer (which will nearly always be higher than the screen resolution). ATM will not change the printed result on a laserprinter equipped with Adobe PostScript!

Recommendation: You *should* use ATM, if are using

- 1) PostScript fonts and regularly need point-sizes which you have no ready-made bitmaps for, need highest typographic precision, or often work in a more than 100% preview of your page.
- 2) PostScript fonts in combination with a non-PostScript printer (like a StyleWriter, DeskWriter etc.).

You don't have to use ATM if you mostly need only point-sizes you have polished bitmaps for and output to a PostScript printer. In this case, ATM unnecessarily occupies parts of your RAM and processing power.

Important: Please always install all screen-fonts supplied with MacCampus fonts – ready-made bitmaps are always faster and – in small point sizes – also more readable than ATM-produced bitmaps. At least install all bitmaps up to 12 points (9, 10, 12).



TrueType INIT: If you want to use TrueType fonts under System 6, then you have to install the TrueType INIT which Apple supplies with its TrueType fonts especially for this purpose. Installing means: Move the INIT into the System folder. Recommended for use with this INIT is System version 6.0.7, but older versions (like 6.0.5) work as well.

Under System 7, the TrueType INIT has been integrated into the System file, and there's no need to install it as a separate item.

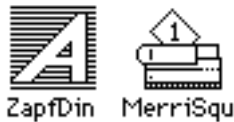
Functionally, the TrueType INIT does for TrueType fonts what ATM does for PostScript fonts: it renders them on-screen in any point-size you ask for.

2.1 Font Files and their Components

Fonts come in several formats and files. The following overview explains what hides behind the various icons.



Font suitcase under System 6 and System 7. May contain bitmap and/or TrueType fonts. Originally, the bitmap components of PostScript fonts were also called **screen-fonts** (in contrast to printer fonts, see below). A double-click opens a font-suitcase to reveal their contents (System 6 uses Font/DA Mover for this, System 7 simply opens a window, normally using list view). A font suitcase must be installed to use bitmap-only or PostScript fonts. Only TrueType fonts may get by without them.



Printer Fonts under System 6 and System 7. Printer fonts contain the outlines for all the characters of a PostScript font. Font vendors may use the generic symbol (right) or design their own icon (left: Adobe). The Mac downloads printer fonts into the printer's RAM (memory) at printing time, i.e. the Print Monitor looks for these files and sends them to the printer (which can be thought of as another computer). ATM (Adobe Type Manager) also uses these files to render fonts for the screen and/or the printed page. This is why it would be more correct indeed to now call these files "outline fonts" instead of "printer fonts", but we will stick with the traditional name. Printer fonts have to reside "loose" within the System folder (System 6) or, together with the corresponding suitcase, in the "Fonts" folder inside the System folder of System 7.1.



AFM file: Part of a PostScript font. Contains data about character widths, kerning information, copyright information etc. The file is in "Text" format which may be read with any text editor (TeachText etc.). AFM files may safely be ignored in most cases.



TrueType font under System 7. Contains the outlines of a font, but no ready-made bitmaps (only a suitcase can contain a TrueType font AND its bitmaps). A TrueType font may be opened with a double-click; it then shows a sample in various point-sizes.



Individual point-size of a bitmap font under System 7 (under System 6, only suitcase may be used to store bitmaps). May be moved into suitcases to combine several point-sizes and/or fonts in one file.

2.2 Basics: Bitmaps Forever

What you seen on-screen and on the printed page are always pixels, i.e. some sort of bitmaps. The only question is, how fine or large these pixels are and how their distribution is defined.

dpi Resolution is measured in dpi (dots per inch). The Mac (or, to be more precise, its QuickDraw component) “thinks” in 72 dpi; this is why a Macintosh screen usually has a resolution of 72 dpi – some have 69, some have around 80 dpi. If the screen resolution is higher than 72, the image is displayed smaller than it will be on paper.

Printers are able to fit many more points into the same space: an ImageWriter has 144 dpi in best mode, standard laser printers have 300 dpi, the StyleWriter has 360 dpi, better laser printers offer 400, 600 or 800 dpi while typesetting machines usually have 1250 or 2500 dpi.

from pixels... Macintosh fonts come in several formats. Bitmap fonts, TrueType fonts and PostScript fonts are the System-wide standards (some printers, like HP DeskWriters, are supplied with fonts in a custom format). PostScript fonts come in several flavors, including Type 3 and Type 1. The first Macintosh fonts were bitmap fonts (like Athens, London, Venice, Toronto, Seattle, now called Apple Classic fonts). The most recent development are TrueType fonts (some of the original bitmap fonts have been converted to TrueType format, like Geneva, Monaco, and NewYork). The most important difference between the three formats lies in the fact that bitmap characters consists of dots only whereas PostScript and TrueType fonts have an outline for each character (from which any needed bitmap may be derived). Consequently, TrueType and PostScript fonts are also called “outline fonts”.

...to true type

2.3 Font Formats: Bitmap-Fonts



Under System 6, bitmap fonts are always contained in a so-called “suitcase”. Such a suitcase may contain exactly one font in one point-size, such as Venice 14 or Athens-18, or several point-sizes of a font, like Toronto-9, Toronto-10, Toronto-12, Toronto-14, Toronto-18, and Toronto-24, or, of course, several different fonts or font-families each having one or more point sizes.

Under System 6, bitmap fonts are installed using Font/DA Mover. From System 7 onwards, simply drag a suitcase onto the System folder, and the Finder will take care of installation into the right place.

Bitmap-only fonts from **Apple** include *Seattle* and *Toronto* (from the early days of the Mac, not supplied anymore with System software), *Cairo*, *Athens*, *Venice*, *Chicago*, *Geneva*, *Monaco*, and *New York*. (The last four fonts are now supplied in a TrueType version.)

Bitmap-only fonts from **MacCampus** are or were part of packages MosFont 1, MosFont 2, and DelFont 1. Their names are Lenin-grad/Petersburg, Sochi, Chigaso, Magadan, Moskau, Archangel’sk (Cyrillic fonts), *GenevaSl*, *NewYorkSl* (Latin fonts with accents), or *Sparta* (Greek font).

Bitmap fonts are also called **ImageWriter** fonts because they were made and optimized for this printer. Because the ImageWriter uses scaled-down double-size fonts to achieve his best quality, ImageWriter fonts are/were supplied in pairs like 9 and 18 points, 10 and 20 points, 12-point and 24-points. Because there usually was no 28 points size, using such a font in 14 points will not result in high quality printing.

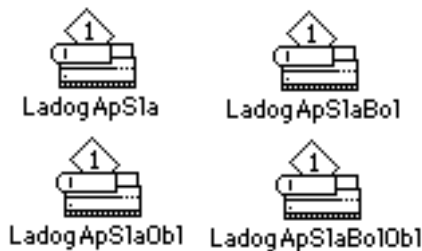
The ImageWriter LQ had a higher resolution and required triple-size fonts (36 points for high-quality 12-point printing) while the LaserWriter SC required quadruple-size fonts (48 points for high-quality 12-point printing). Clearly, the underlying concept had inherent limitations and lacked the flexibility required by technologically more advanced printers. Bitmap-only fonts were dead except for very special purposes (HyperCard, for example).

2.4 Font Formats: PostScript (Type 1)

PostScript fonts consist of three components:

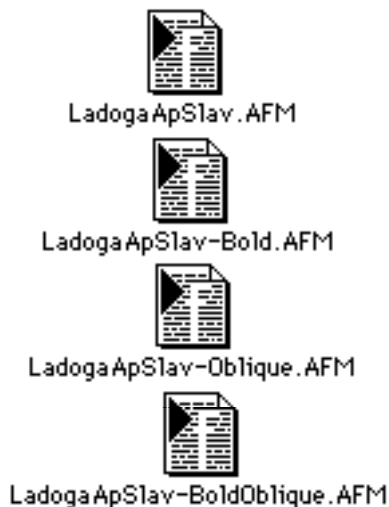


Screen-fonts: The font suitcase contains the so-called screen fonts which are derived from the character outlines to represent a font a given point-size. Commercial fonts normally come with polished (hand-edited) bitmaps from 9 or 10 point to 24 points. Only special fonts either have a limited set within this range or a completely different range (36 and 48 points, for example). The user may change the name of the suitcase without affecting its function (changing the suitcase's name does not change the font's name). Screen-fonts *have* to be installed for the font to appear on your application's "Font" menu. Consequently, if a new font appears in the "Font" menu, at least the bitmaps have been properly installed.



Printer fonts: The printer fonts contain the characters' outlines. Printer fonts from different vendors may carry different icons. Their names seem to be somewhat strange, but really are abbreviated from the full name according to strict rules. The names of printer fonts may not be changed by the user or the printer font will lose its connection with the screen-font. Printer fonts are used at printing time: after clicking "OK" in the "Print..." dialog, the Mac looks for printer fonts associated with screen-fonts used by the document and sends them over the network into the printer's memory (RAM). If printer fonts are not present when they should, screen-fonts are sent to the printer.

AFM files contain information about the character set, character widths, kerning of character pairs, and copyright information. AFM files are text-only files and may be opened and read with any text editor. For a font to work on the Mac, AFM files are not needed and may be ignored. Only if your layout program explicitly requires AFM files, you should install them.



PostScript fonts are normally supplied as font families, i.e. with a separate design (outlines) for various weights, normally plain (Roman, Book), *italic* (or oblique), **bold** (demi), and **bolditalic** (boldoblique, demioblique). Each weight has its own printer font and its associated screen-font (usually contained in one suitcase).

Mac fonts may contain up to four weights; larger font families have to be split up into several families. Helvetica is a good example: the standard family has plain, oblique, bold (= medium) and boldoblique. The most widely used addition has light,

lightoblique, black (= bold) and blackoblique, thus extending the range down and up.



If a given font has only one weight, the user may apply “bold” and “italic” from the “Style” menu to electronically change the outlines – if the font vendor allows this to work. Mechanically deriving fonts means slanting them for “italic” and doubling and “smearing” them for “bold” which, of course, is not equal to having true designs for these weights. Zapf Chancery (PostScript version) is a good example where such manipulation is not possible: you may apply “bold” to it, and the appearance on-screen will duely change, but the font will never print bold. Derived weights often make no sense at all or differ considerably from true designs, i.e. are to be treated with caution. MacCampus fonts let you experiment with derived weights, if you want.



Type 1 is the name of a special PostScript font format. Type 1 fonts print better in small point sizes on standard laser printers because they contain “hints”. Originally, only Adobe and its licensees could supply Type 1 fonts whereas the competition had to be content with (unhinted or composite) Type 3 fonts (see below). Although PostScript as a programming language had been fully documented, Adobe did not reveal what made a font a Type 1 font. Only when the code had been broken and the “secret” had been publicly demonstrated, Adobe was forced to document the specifications for Type 1 fonts. Since then any vendor may produce Type 1 fonts. As far as MacCampus fonts are concerned, only Method, the Cyrillic Old Church Slavonic font, had originally been released as an unhinted Type 3 font, re-released later as Type 1. Not to be confused with unhinted fonts are composite fonts (see below).

Today, Type 1 is the standard for PostScript fonts, but under some special circumstances it may still make sense to use Type 3 fonts. There are no Type 2 fonts, by the way.



ATM (Adobe Type Manager) supports PostScript only Type 1 fonts, from Adobe or from other vendors. (The first Type 1 fonts from independent vendors sometimes had problems with ATM resulting in cropping at the right or no scaling at all. Commercial fonts have long overcome such problems.)

2.5 Font formats: PostScript (Type 3; Composite)



Type 3 fonts consist of the same three components as Type 1 fonts, only the printer font usually has a small “3” on it instead of a “1” (as long as only Adobe could supply Type 1 fonts, Fontographer-generated fonts always were Type 3, and the number was simply missing in the printer font’s icon). Type 3 fonts can differ in several ways from Type 1 fonts: their characters may be in a shade of grey, overlapping parts may form one character by “smearing” (important for handwriting-fonts, for Arabic fonts etc.) and so on. Such features don’t play a role with MacCampus fonts.



MacCampus Type 3 fonts (there are only a handful of them) are always so-called **composite fonts**. This means, that the printer fonts do not contain any outlines but only references to some other font. This base font may be a built-in (resident) font (like Times or Helvetica) or a downloadable font (like Helvetica Light/Black) which is not part of the core set and must be purchased separately.

An example for such a Type 3 font is Pannonica Light/Black. The base font is, as you might guess, Helvetica Light/Black. Pannonica Light/Black adds support for additional languages (like Turkish, Hungarian, and Romanian) by constructing all new letters from parts that are already available in one form or another in the original font. Pannonica Light/Black therefore may be called a PostScript program which manipulates a font (Helvetica Light/Black) to achieve the desired results. This manipulation happens inside the printer – this is why the original font is required at printing time to use Pannonica Light/Black. Just like an Excel spreadsheet needs Excel to run, Pannonica Light/Black needs Helvetica Light/Black for printing.

- Pannonica-Black.AFM
- Pannonica-BlackOblique
- Pannonica-Light.AFM
- Pannonica-LightOblique

Type 3 composite fonts are not as easy to handle as Type 1 fonts – the original font has to be downloaded into the printer’s RAM to make sure everything works (if the original font is not present, output will be in Courier). Also, ATM does not support composite fonts. Why then are there still Type 3 fonts? The reasons are simple: Every font vendor can supply a composite font based on someone else’s font, and that’s the only way to do so without violating copyrights. And a composite font does not require as much work as creating a font from scratch, which is reflected in its price. The output, on the other hand, is the Type 1 quality of the original font, not a clone or imitation.

2.6 Font Format: TrueType

TrueType (at first called Royal Type) is a **font format** created by Apple, originally devised to be independent from Adobe and their Type 1 format, over which Apple has no control.



From a user's point of view, **TrueType** has the advantage of delivering high-quality output on simple printers (like a StyleWriter). Also, there are no separate files anymore for screen-fonts and printer-fonts – both parts reside inside the same font suitcase. In contrast to PostScript fonts, a TrueType font does not require that bitmaps for the screen be present although in point sizes up to 14 professionally polished bitmaps still look better. In professional environments, PostScript is still the dominant font format, and TrueType regarded as the “cheap” format for the mass market. This is not necessarily true.



Quality: TrueType fonts differ in their quality. They may be simply generated from the same outlines as their PostScript counterparts, or they may be professionally “hinted” for optimal results. Apple's TrueType FontPack is an example – these fonts produce perfect bitmaps in 10 or 12 points on the screen which are hardly distinguishable from hand-edited bitmaps. Producing a high quality TrueType can be much more complex than producing a PostScript font! TrueType fonts generated by Fontographer without additional hinting do not print as good as their PostScript counterparts a PostScript printer, at least in small point sizes (below 12).

Recommendations: 1) If a TrueType font is supplied with polished bitmaps, you should install the bitmaps, too. It takes the Mac less time to display such bitmaps than it takes TrueType to scale the outlines and then to display the resulting bitmaps.

2) If a font comes in a PostScript *and* in a TrueType version, you should use the PostScript version on a PostScript printer. Usually, this will result in better results in a shorter time.



3) You may safely mix both versions in the case of MacCampus fonts. Both versions have the same bitmaps and the same character widths. If the TrueType version *and* PostScript printer fonts are installed, the Mac uses the printer fonts on PostScript printers and TrueType for on-screen bitmaps giving you optimal results in both cases (this actually depends on System software versions – the first versions of System 7 ignored the PostScript printer fonts under such circumstances).

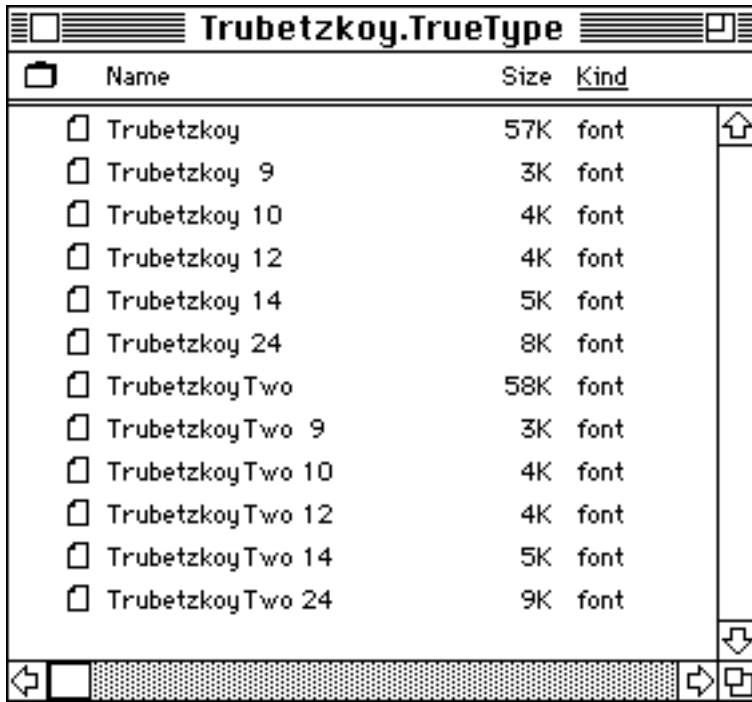


Trubetzky.TrueType & bmaps

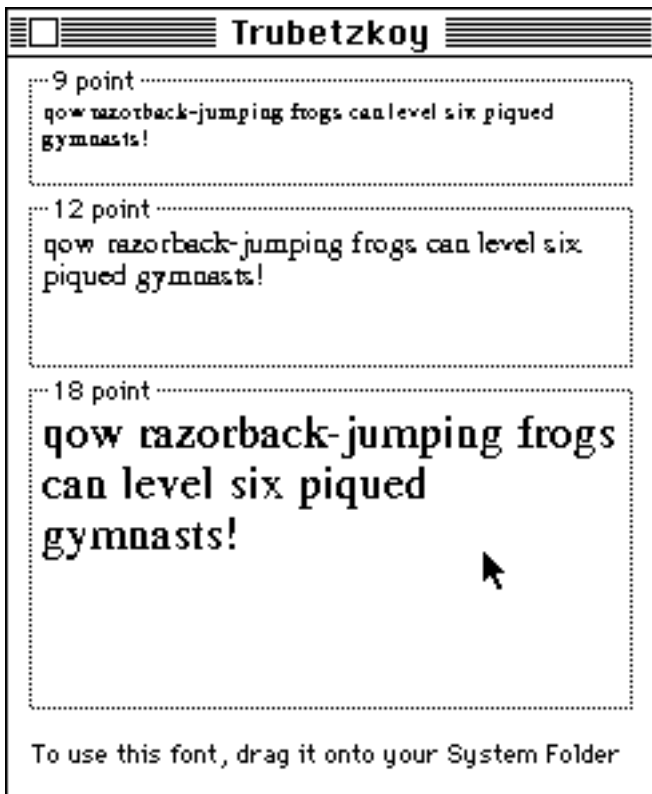


Trubetzkoj.TrueType & bmaps

Under System 7, font suitcases and separate TrueType font files may be opened by double-clicking on them.



The picture shows the contents of a font suitcase with two TrueType fonts and four bitmap font-sizes each. Which is which is easily recognized by looking at the size information: complete TrueType fonts are always around 50K (or more), bitmaps in standard sizes almost always below 20K.



This picture shows what happens when a TrueType file or a TrueType font from a font suitcase is double-clicked: the Mac reads the outlines, scales them and displays a (nonsense) sentence in various point-sizes.

This actually serves as a test in two respects: Does the font work? (Yes.) Are these bitmaps as good as hand-edited ones? (No.)

If the font was damaged, nothing would be displayed here.

3.1 Installation: Fonts under System 6

Under System 6, fonts are installed as follows:

Font Suitcases: by using Font/Da Mover (see below).



Printer-Fonts: Manually. 1) Select the printer fonts by shift-clicking on one after the other or drag a rectangle over all of them at once with your mouse-button held down. 2) Drag the selected printer fonts onto the System folder of your hard-disk. That's all. Printer fonts must reside "loose" inside the System folder i.e. they must not hide inside additional folders. Please note: never drag a folder from the fonts disk onto the System folder. This will not properly install anything. (You may, however, drag the contents of the floppy onto your hard disk first, essentially making a back-up of the original disk in the process.)

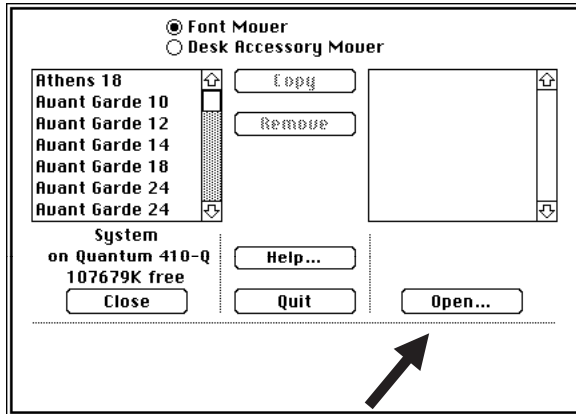


Font/DA Mover: Font/DA Mover copies fonts between font suitcases or between a font suitcase and the System file (which really is only a suitcase with a lot of resources in it). The Font/DA Mover's interface is not too intuitive which is why it was done away with in System 7. The program displays a symmetrical window on the screen. In the left and right halves you open the two containers you want to copy fonts between. Standard Macintosh techniques are used to "Open" and select the files to copy between. Please see next page for a more detailed description with illustrations.

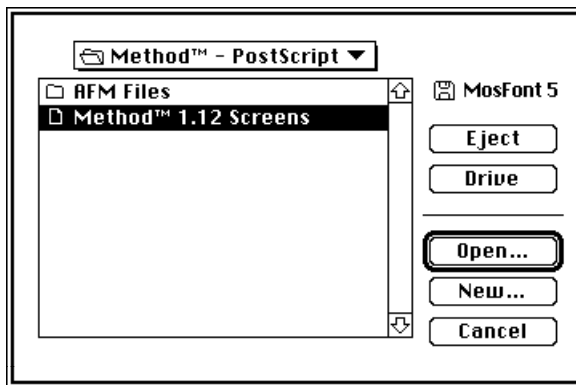


Versions: The last version of the Font/DA Mover supplied by Apple with System software was version 4.1. This version is required to install TrueType fonts under System 6. For PostScript fonts, version 3.8 may also be used. With MacCampus fonts, version 4.1 of the Font/DA Mover is supplied.

Important: If you see a blank window after double-clicking a font suitcase, then you have an old version of the Font/DA Mover on your hard disk which was launched automatically. Please use the version from the disk instead.

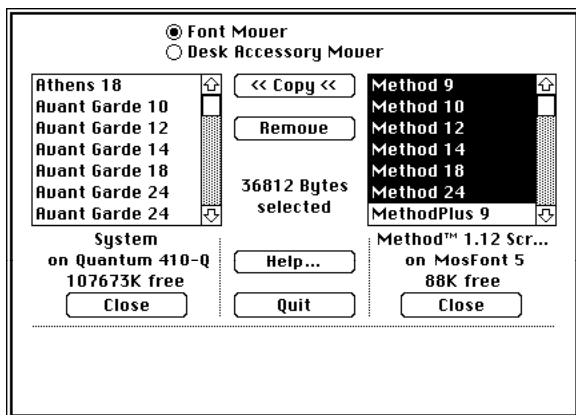


Launch: Launch Font/DA Mover by double-clicking on it or double-click on the font suitcase on the fonts disk. In each case, the contents of the default suitcase are displayed in the left window (System file with already installed fonts or suitcase with new fonts).



Open: Font/DA Mover can only copy between open suitcases, so the next step is to open the second suitcase which is now either the suitcase with the new fonts or the System file on the hard disk. Click on “Open...” and then on “Drive” to select the desired volume (i.e. your hard disk or the diskette). In our example, MosFont 5 is the name of the disk, and the screen-fonts from the PostScript version of this package have been selected.

Copy: After you have successfully opened the System file and the suitcase with the new fonts now select the new font by clicking on it (once) or by shift-clicking on several point-sizes. With the fonts still selected, click on “Copy” in middle between the two windos. If you have selected *one* point-size, there will be a sample of the font displayed in the blank space below the buttons.

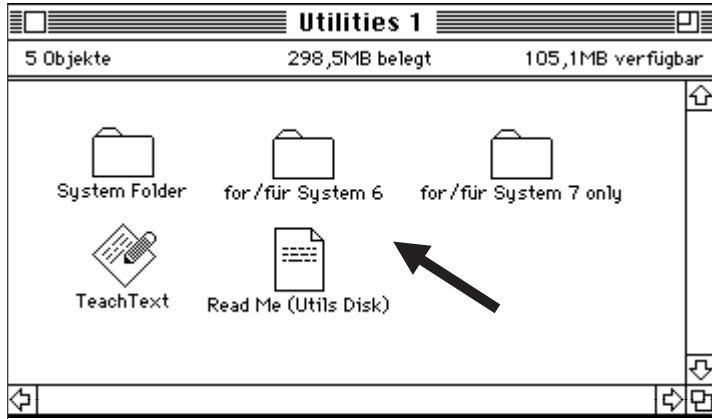


If a displayed font has no point-size attached to it, it is a **TrueType** font without bitmaps. If you click on it, a sample of the font in several sizes will be displayed (which shows that the font works). To install TrueType fonts, you must use Font/DA Mover 4.1. No other version will work.

If you *have* selected a suitcase, but it seems to be **empty**, then you have launched an old version of Font/DA Mover by accident.

3.2 Installation: Keyboard Drivers under System 6

Under System 6, keyboard drivers for MacCampus fonts are being installed by using the supplied **Utilities** disk.



1) **Start** your Mac from the Utilities disk, i.e. put the disk into a drive and switch on the Mac. If the Mac is already on, restart and put in the disk right after the chime (before the Mac uses its internal hard drive to start up).

2) On the “Utilities” disk, open the folder labeled “for System 6” and launch the **Installer** program with a double-click or one of the installer scripts. Important: these documents are just scripts telling the Installer what to do, they are not the keyboard drivers themselves.

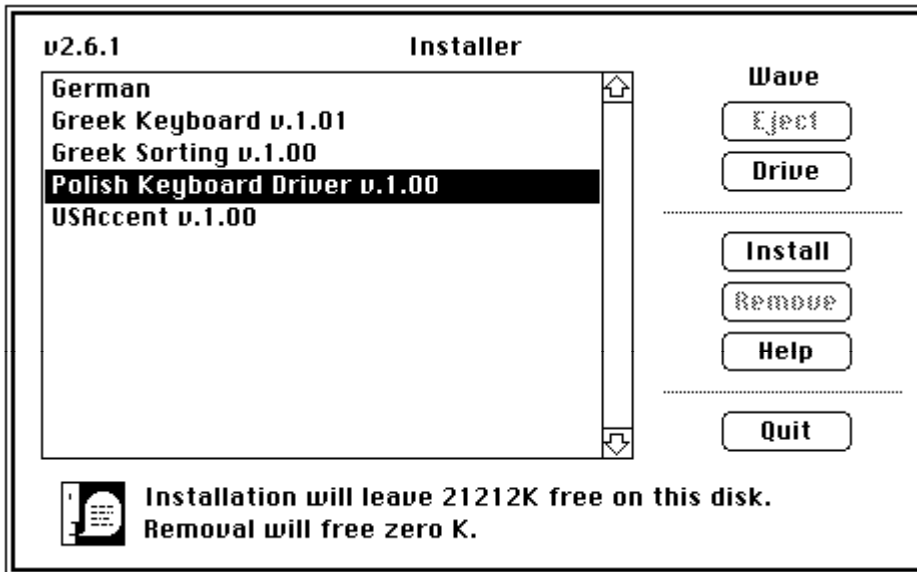


Installer



Russian/I

3) The installation window (see below) comes up; select the driver you want to install and click on “Install”. Please make sure, that the name of the destination disk is correctly displayed (“Wave” shown here as an example). After one second or so of activity installation is finished.



4) Click on “**Quit**”; this returns you to the Finder. It is important to **re-start** at this point (choose from “Special” menu) – keyboard drivers are only loaded when the Mac boots!

3.3 Installation: Fonts under System 7

Under System 7, installation of fonts is simple:



System

System 7.0/7.0.1: When you are using these first releases of System 7, suitcases go into the System suitcase (i.e. System file) and printer fonts go into the “Extensions” folder inside the System folder. Select the fonts you want to install (suitcases and/or printer fonts) and drag them onto the System folder. The Finder will install everything where it belongs (after getting an OK from you to do so). It may be necessary to quit all open programs before installation can take place.



Extensions

This way of installing fonts proved to be slow and non-intuitive: the System file grew very large, was slow to open and close, and printer fonts were not thought of as extensions before.



Fonts

System 7.1: From System 7.1 onwards a new folder inside the System folder contains all components associated with fonts: bitmaps, TrueType files, screen-fonts, and printer fonts.

Suitcase files remain intact under System 7.1 – under System 7.0 their content was dissolved into a mass of individual parts (point sizes).

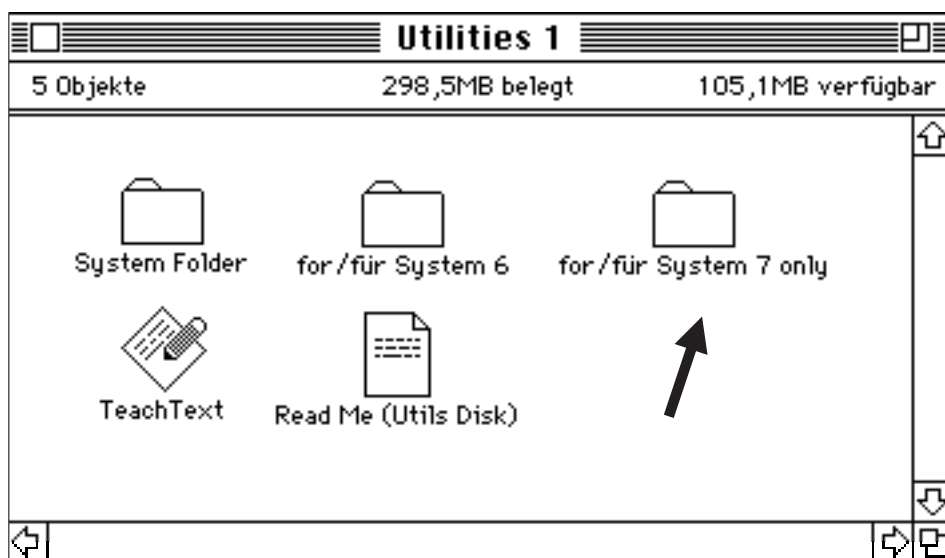
The maximum no. of suitcases that can be put into the Fonts folder (and thus automatically kept open by the System) is 128. But as each such suitcase may in turn contain as many fonts as you like, there is no practical upper limit on how many fonts can be installed.



U.S. CE

Keyboard drivers: Like before, keyboard drivers are installed into the System file under System 7. Select the required driver (see below) and drag it onto the System folder – the Finder will do the rest.

3.4 Installation: Keyboard Drivers under System 7



System 7 keyboard drivers for MacCampus fonts either are on the fonts disk or on a separate **Utilities** disk.

Please follow these steps to install a driver from the Utilities disk:

- 1) **Start** your Macintosh as usual. If the Mac is already running, quit all open programs.
- 2) Put the **Utilities disk** into a drive.
- 3) If necessary, open the icon for the Utilities disk. Then locate and open the folder labeled “**for System 7**” (see picture).



ApRussKB

- 4) Select one of drivers (or several drivers at once) and drag them onto the System folder of your hard disk. After getting your confirmation, the **Finder** will copy the items to the hard drive and **install** them inside the System file.



System

- You can remove keyboard drivers under System 7 by opening the System folder, and then the System file by double-clicking. Locate and select the driver to be removed and drag it onto the trash. Choose “Empty trash” from the menu.

4.1 Using Fonts

After fonts have been installed, they will show up in the “Font” menu of your application program.



As a first test if a font has been successfully installed it is recommended to select the “Keyboard” DA from the “Apple” menu and to verify if the new font shows up in the font list (pull down “Keyboard” from the menu bar; fonts are listed alphabetically).

If the font is listed here but will not show up in your application program please consult the application’s documentation for additional instructions.

Font families and weights: If a MacCampus font has several weights (plain, bold, italic, bolditalic), these weights will never show up in the *Font* menu like Adobe fonts do. Adobe fonts begin with abbreviations like I, BI, L, N etc., resulting in font names like “B Times Bold”, “I Times Italic” etc. This violates strict programming recommendations by Apple and is to be considered incorrect. MacCampus fonts conform to Apple’s user interface guidelines and to Apple’s own practise: to access the individual weights of a font family, first select the typeface family from the “Font” menu and the weight from the “Style” menu.



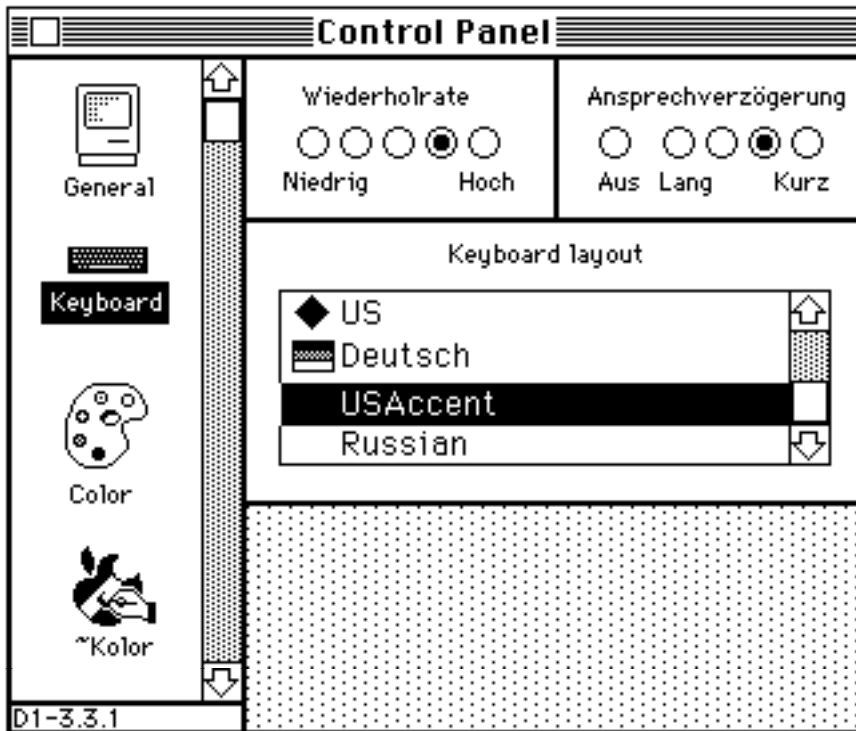
ATR: Adobe Type Reunion is a System utility which reduces a cluttered font menu by grouping all weights of a font family into a sub-menu leaving only the family as an entry in the main menu. With MacCampus fonts, this way of “repairing” of what is a non-standard behaviour in the first place is not required.

Nevertheless ATR can be useful even with MacCampus fonts: If you have several version of the same font installed they will grouped under one heading. For example, “Ladoga Russian”, “Ladoga Slavic”, “Ladoga ApCyr”, and “Ladoga Slavic Black” will all be found under “Ladoga” with the sub-menu allowing the choice between “Russian”, “Slavic” etc.



MasterJuggler, Suitcase: MacCampus fonts are completely compatible with utilities like MasterJuggler and Suitcase. Please note that these programs allow other methods of installing fonts than the standard method described here.

4.2 Use: Keyboard Drivers under System 6



Each Macintosh configured for the international market comes with two keyboard drivers installed, a US keyboard driver, and a local driver. Thus, switching between keyboard drivers is implemented as a standard software feature.

To select a different keyboard driver (among those installed) please follow the following steps:

Open “**Control Panels**” from the “Apple” menu and scroll down the list of available controls until you see the icon of a keyboard labeled accordingly. Click on it once. You will then see a list of all installed keyboard drivers (see picture). The currently active driver will be highlighted; to select a different driver, just click on it once. Changes will become effective immediately, without restarting.

System 6: This is the only way of switching between keyboard drivers.

System 7: This is only one of several methods of switching between keyboard drivers, and the most inconvenient. See next section for information on other methods.

4.3 Use: Keyboard Drivers under System 7

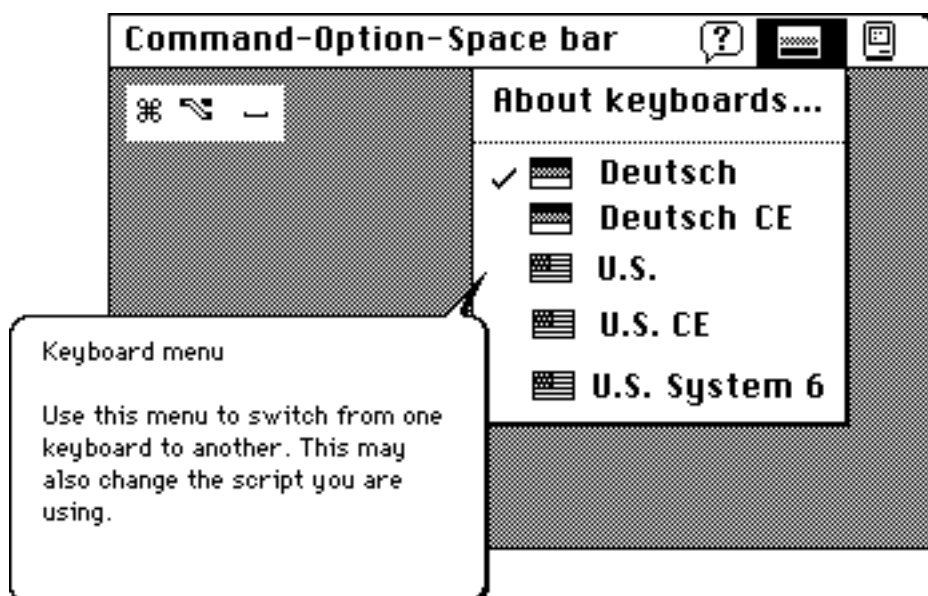
System 7 offers additional methods for switching between keyboard drivers while maintaining compatibility with the System 6 method (see 4.2.).

Hot key: Pressing **Command-Option-Space** simultaneously switches to the next keyboard driver in alphabetical order without interrupting the currently active program.

You only have to remember which drivers are installed to use this “blind switching” effectively. Another catch is that some program may use the same key combination for different purposes (zooming in, for example). Program hot keys override System hot keys; in this case you could configure QuickKeys with different short-cuts for both actions.

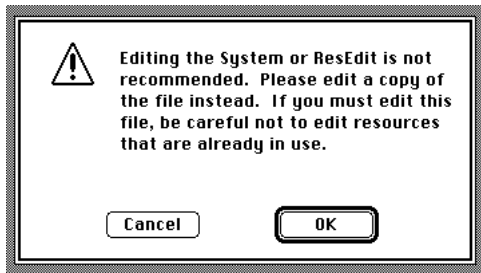
Keyboard menu: The most elegant way of switching between keyboard drivers is using the Keyboard menu illustrated below. The hot-key described above will still work, by the way, and you make take the keyboard icon as a visual feedback.

There is only one catch: The keyboard menu will usually not appear automatically, unless you have some WorldScript addition installed. The next pages describe two ways of making the keyboard menu appear without having WorldScript.

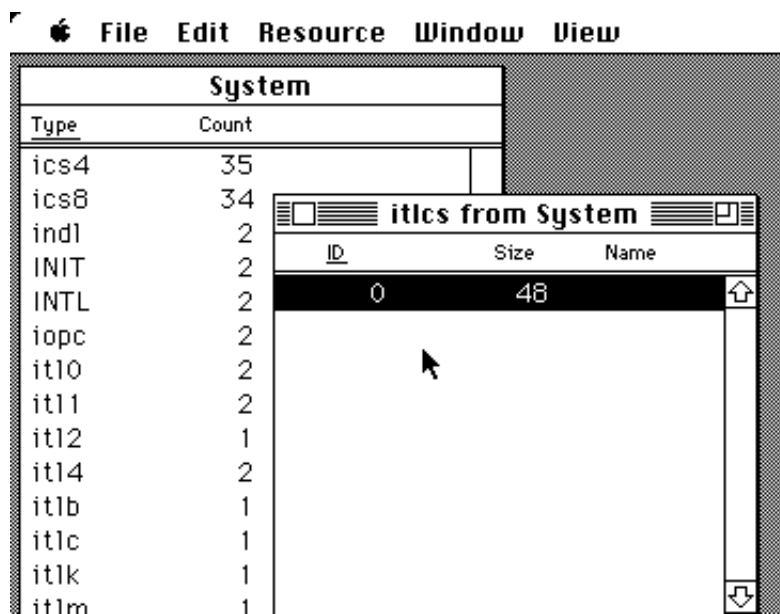


4.4 Using ResEdit for “Keyboard” Menu

Close all currently open applications and start **ResEdit 2.1**. Open the **System file** on your hard disk. You will see a warning (you may switch to the Finder before going further to duplicate the System file). Click on “OK”.



Scroll down the list of all resources until you see “**itlc**”. Double-click on this resource category. A new window opens.

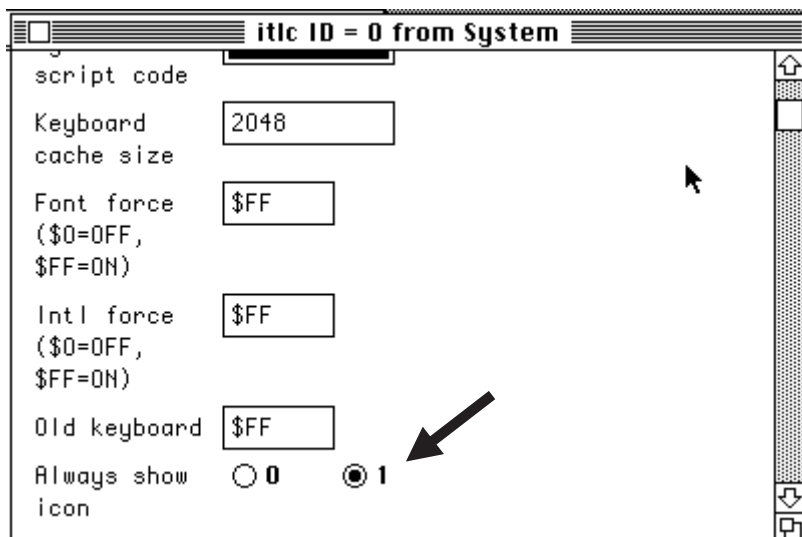


Double-click on the preselected element.

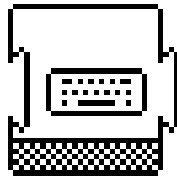
Scroll down one line (on a 9" monitor) and set the option “**Always show icon**” to “**1**”.

Save all your changes, **Quit** ResEdit and **Restart** your Macintosh.

For a more convenient way of making the Keyboard menu appear, please see next page!



4.5 “Keyboard Menu” Extension



Keyboard Menu 1.0

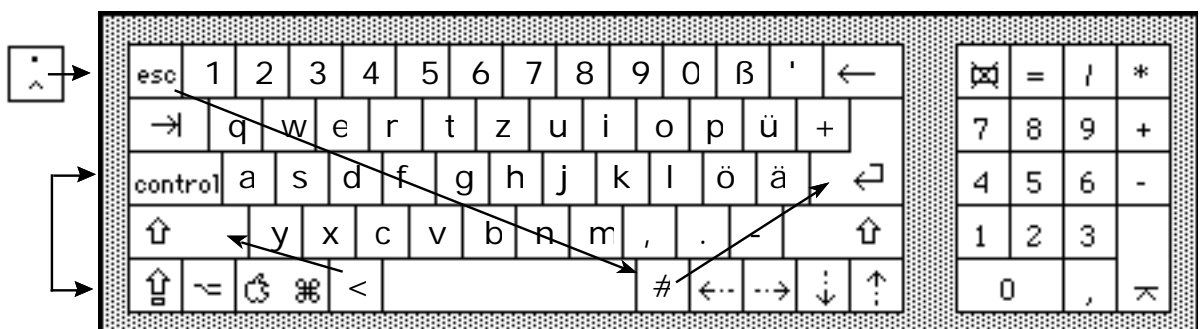
The most elegant way to make the “Keyboard” menu is to install the identically named System extension which may be supplied on some disks.

Simply drag this extension onto your System folder, let the Finder install it, and restart your Macintosh. The keyboard menu will now appear automatically at the right side of the menu bar.

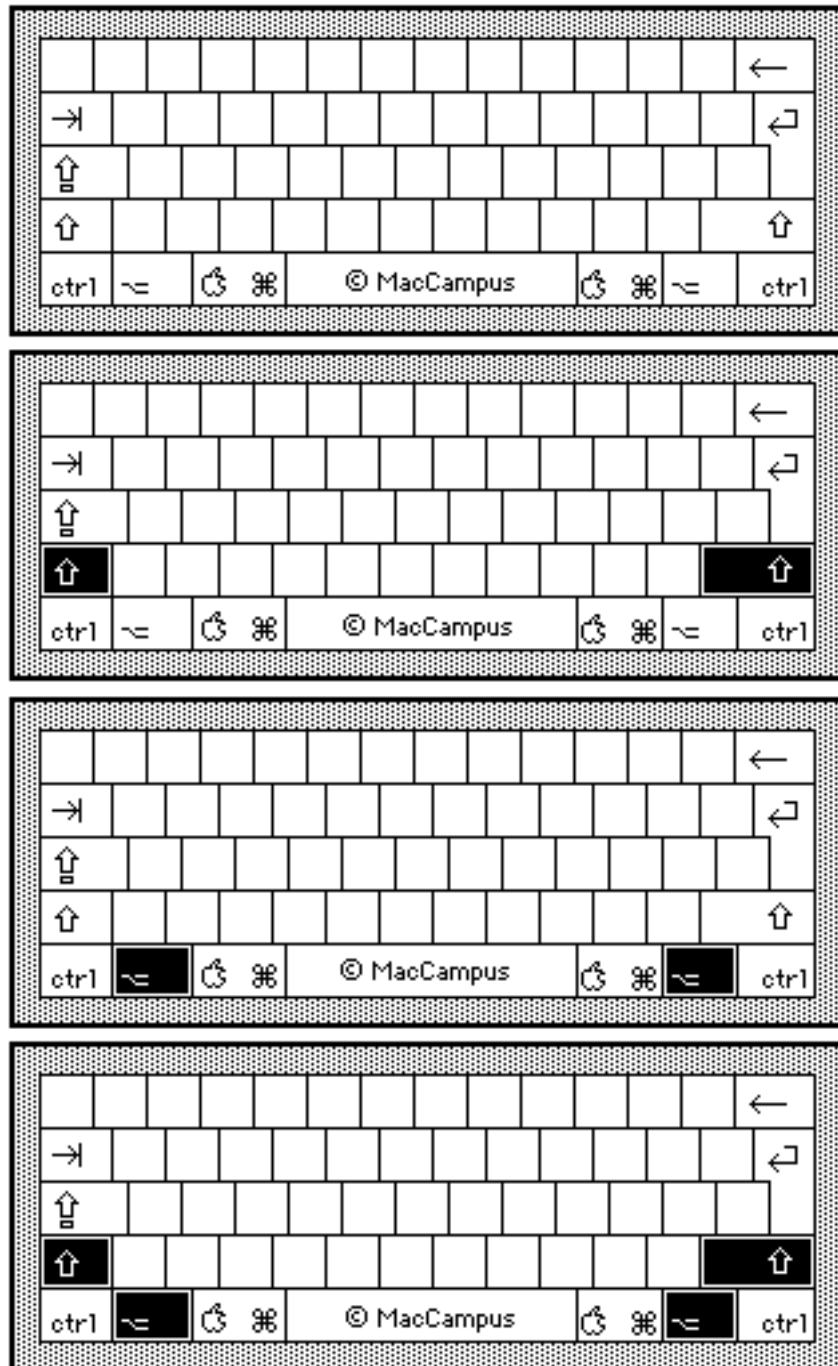
Keyboard Menu is copyrighted software by the author visible in “Get Info”. We have no information at present about whether it is Public Domain or Shareware. Please honor all copyright and pertinent additional information which might come to your knowledge. Of course, MacCampus cannot guarantee that “Keyboard Menu” works on all Macintoshes and all System configurations and cannot be held responsible in this respect.

5.1 Keyboard Models

Apple has produced various keyboard over time which differ in the placement of some keys. The picture below shows the German keyboard and indicates which keys were shuffled around. The same will be true for other international keyboards. Also, there are various keyboard layouts used in the U.S.



5.2 Keyboard Template (for your notes)



5.3 Macintosh Dead Keys

1. Accent: ´	+	a / A	=	á / Á
Deutsch: ´	+	e / E	=	é / É
US: option-e	+	i / I	=	í / Í
	+	o / O	=	ó / Ó
	+	u / U	=	ú / Ú
2. Accent: `	+	a / A	=	à / À
	+	e / E	=	è / È
Deutsch: `	+	i / I	=	ì / Ì
US: option-`	+	o / O	=	ò / Ò
	+	u / U	=	ù / Ù
3. Accent: ^	+	a / A	=	â / Â
	+	e / E	=	ê / Ê
Deutsch: ^	+	i / I	=	î / Î
US: option-i	+	o / O	=	ô / Ô
	+	u / U	=	û / Û
4. Accent: ¨	+	a / A	=	ä / Ä
	+	e / E	=	ë / Ë
Deutsch: Wahl-u	+	i / I	=	ï / Ï
US: option-u	+	o / O	=	ö / Ö
	+	u / U	=	ü / Ü
	+	y / Y	=	ÿ / Ÿ
5. Accent: ~	+	a / A	=	ã / Ã
	+	o / O	=	õ / Õ
Deutsch: Wahl-n	+	n / N	=	ñ / Ñ
US: option-n				

Because even experienced Macintosh users do not always know how to type international **accented characters** on the Mac keyboard, they will be listed here in a complete overview.

As you will probably know, the Mac has **five dead keys** to produce accented characters.

To **use** these dead keys, you type the correct option-key first (which produces nothing yet on the screen), let go and then type one of the listed lowercase or uppercase characters (mostly vowels).

Other accented combinations cannot be produced using standard western fonts – for this, you will need MacCampus language fonts!

5.4 Standard Character Set

LaserWriter II NT/NTH Fonts: Times-24																
<input type="radio"/> Key	<input checked="" type="radio"/> Dec	<input type="radio"/> Hex	<input type="radio"/> Oct	<input type="radio"/> Width	<input type="radio"/> Tint	<input type="radio"/> Weight	<input type="radio"/> Char									
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	
	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	
0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	
P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	
p	q	r	s	t	u	v	w	x	y	z	{		}	~		
128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	
À	Å	Ç	É	Ë	Ï	Ö	Û	á	à	â	ä	ã	å	ç	é	è
144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	
ê	ë	í	ì	î	ï	ñ	ó	ò	ô	ö	õ	ú	ù	û	ü	
160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	
†	°	¢	£	§	•	¶	β	®	©	™	´	¨	≠	Æ	Ø	
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	
∞	±	≤	≥	¥	μ	∂	Σ	Π	π	∫	∂	∂	Ω	æ	ø	
192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	
ˆ	˙	¬	√	ƒ	≈	Δ	«	»	...		À	Ã	Ö	Œ	œ	
208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	
—	—	“	”	‘	’	÷	◊	ÿ	ÿ	/	◊	<	>	fi	fl	
224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	
‡	·	,	„	‰	Â	Ê	À	Ë	È	Î	Ï	Ï	Ï	Ó	Ô	
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	
🍏	Ò	Ú	Û	Ü	ı	ˆ	˜	˘	˙	˚	¸	”	„	˘	˙	

6.1 Software and Copyright, License

License

Digital fonts and their documentation are protected by copyright.

As a customer of a font package you own the diskette and have a license to use the software, but no copyright is transferred to you. When you buy a book, this doesn't give you the rights to the words in it, either! You just own the paper.

Buying a font package entitles the customer to use the contents on *one* Macintosh at a time. Simultaneous use on multiple CPUs or printers requires that you have a *Multiple License*. Such licenses are available from the distributors representing MacCampus.

To use a font in several branches or locations of one company including free-lancers like translators etc. a *Multi-Site-License* is required.

A single license includes the right to make *one* back-up copy of the disk. Giving away copies of the software to third parties is illegal, be it for money or not.

A single license does not cover including the fonts with application files sent to publishing houses, imaging studios, typesetting bureaus etc.

To produce high-quality digital fonts, it takes a trained eye, years of experience, expensive equipment and time! In the case of MacCampus language fonts, considerable linguistic knowledge and even scientific research is required. Nevertheless, MacCampus fonts are still considerably less expensive than fonts by large companies. Please honor all the labor which has gone into producing these fonts by not giving away copies.

MacCampus welcomes the input of end-users. Please don't hesitate to communicate your suggestions, ideas etc. to us. MacCampus is a very small but flexible company. If you need special solutions we may just have them!

A customers does have rights, too! Please see under "Guarantee" below!

Only sealed font packages will be taken back or exchanged for another packages. If the seal has been broken, returns will not be accepted.

6.2 Guarantee and Usability

Guarantee

MacCampus guarantees that its software (fonts and keyboard drivers) works in combination with current System software (System, Finder, Font/DA Mover, LaserWriter and StyleWriter printer drivers etc.) at the time of production. MacCampus also guarantees that all fonts and drivers technically work with standard application programs (i.e. programs conforming to Apple guidelines).

MacCampus cannot guarantee usability of its software for a certain purpose and cannot be held responsible in this respect.

MacCampus reserves the right to change and modify its software at any given time.

Limitations

There are some known restrictions in the use of MacCampus fonts in combination with certain application programs.

1) Quark XPress: The program will only start up if the local keyboard driver has been selected. When the program is running, you may switch to any other driver without problems.

2) Fonts with flying accents can pose problems with XPress. Sometimes flying accents are suppressed at the end of lines. In contrast, PageMaker is a much more well-behaved program with respect to language fonts.

3) Double-clicking on a word to select it may or may not work with language fonts. For a double-click to work, the program must be WorldScript-compatible. Future versions of MS-Word (later than 5.1) could be, other programs are already.

4) Flying accents are not displayed correctly in FileMaker while text is entered. Click outside the field to have these accents displayed. (This bug was only introduced when Claris took over FileMaker.)

Registration and Support

Send in your registration form to MacCampus clearly indicating which products you have bought. Only registered customers receive technical support from us. Also, only registered customers receive special offers, promotions, updates, upgrades etc.

For technical support, please contact our distributor for your country first. If you need additional assistance, we will be glad to help you directly.

Notes



Notes

