



# FontMonger<sup>TM</sup>

User Guide

# FontMonger™

## User Guide



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**Ares Software Corporation**

P.O. Box 4667

Foster City, CA 94404-4667

See Appendix B for contact information.

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**Program Concept:** Russ McCann

**Program & Interface Design:** Larry Applegate  
Ernie Brock  
Robin Henson  
Joe Senecal

**User Guide:** Vern Goldsmith, Goldsmith Communications Company  
Robin Henson

**Package Design:** Christoph Dierman

**Startup Screen Concept:** Jason Levine

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# Table of Contents

## **Introduction**

System requirements .....	1
Knowledge of Windows.....	1
Using the User Guide.....	2
Font copyrights .....	3

## **Installing FontMonger**

Making a backup .....	5
Registering FontMonger .....	5
Recording your FontMonger serial number .....	6
Running the FontMonger installer.....	6
What the installer does .....	6
After installation .....	7
Starting FontMonger.....	7
Other ways to start FontMonger.....	8
Technical support .....	8

## **Chapter 1. About FontMonger**

Why convert? .....	9
Why customize? .....	9
What FontMonger can do .....	9
Sources of fonts .....	10
Finding font files.....	10
Converting fonts .....	11
Hints .....	11
Customizing fonts .....	11
Character alterations.....	12
Editing character outlines .....	12

## **Chapter 2. Using FontMonger**

FontMonger document files .....	13
Font files.....	14
Opening font files.....	14
Building font files.....	14
Converting batches of fonts .....	15
Opening and saving FontMonger documents .....	16
Working with keyboard windows.....	17
Keyboard layout display .....	17
Character chart display .....	19
Selecting characters .....	20
Rearranging characters and combining fonts .....	20
Applying FontMonger's built-in alterations .....	20
Working with Alter Character windows .....	21
Altering characters .....	23
Readouts .....	23
Undo and Redo .....	24
Saving customized alterations.....	24



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## **Chapter 3. Tutorial**

Tutorial files .....	25
Starting FontMonger.....	26
Converting a batch of fonts .....	27
Opening a font .....	30
Altering a font — creating small caps .....	31
Saving a font .....	34
Creating a fraction.....	35
Importing a logo .....	37
Creating a dollar sign.....	38
Copying and pasting between fonts.....	43
Building a font file.....	45

## **Chapter 4. Converting Fonts**

An overview of converting fonts .....	47
Creating a batch of fonts .....	48
The Convert Batch dialog.....	48
Finding fonts to convert .....	50
Adding a single font .....	52
Converting a batch of fonts .....	52
Supported file formats .....	53
Font formats FontMonger can read.....	54
Font formats FontMonger can write.....	55

## **Chapter 5. Managing Font Files**

Windows TrueType fonts .....	57
PostScript Type 1 fonts.....	58
Installing and removing fonts with ATM.....	58
Using Adobe Font Foundry .....	58
Other uses for PostScript fonts.....	59
Nimbus Q Fonts .....	59
Installing fonts in SoftType.....	59
Installing fonts in GeoWorks Ensemble.....	59
NeXT fonts.....	59
Transferring fonts from NeXT .....	59
Transferring fonts to NeXT .....	60
Macintosh fonts.....	60
Using Apple File Exchange .....	60
Other methods of transferring files .....	60
Using Macintosh files .....	61
Building files for Macintosh .....	61

## **Chapter 6. Keyboard Windows**

Opening a font .....	63
Opening multiple fonts .....	65
Saving a font .....	65
Closing keyboard windows.....	66
Reverting to the saved version of a font .....	67
Keyboard layout .....	67
Modifier keys .....	68

Display options for keyboard windows .....	69
Character numbers.....	70
Using the character chart view.....	70
Selecting characters .....	71
Selecting by clicking with the mouse .....	71
Selecting by dragging with the mouse.....	71
Selecting characters by typing.....	72
Selecting all characters .....	72
Selecting character ranges.....	72
Deselecting characters .....	73
Deselecting all selected characters.....	73
Deselecting a single character .....	73
Deselecting multiple characters .....	73
Miniature keyboards.....	73
Using FontMonger's built-in alterations .....	75
Customizing fonts .....	75
Rearranging characters with Cut, Copy and Paste ...	76
Combining fonts with Cut, Copy and Paste .....	76
Deleting characters from a font.....	77
Removing characters from the keyboard.....	77
Assigning characters with Choose Character .....	77
Creating a new font.....	78
Importing graphics.....	79
Graphics formats that FontMonger can import.....	80
Preparing artwork for importing.....	80
Setting font information .....	82
Font families.....	82
Stylistic variations .....	83
Family relationship .....	83
Family metrics .....	84
Font classification.....	85
Setting font protection .....	85
Building font files .....	86
Printing a font layout.....	87
Printing a character chart.....	88
Exporting graphics .....	88
Creating custom selection ranges .....	90
The Customize Selection Range dialog.....	90
To redefine an existing selection range.....	91
To delete a selection range .....	91
To rename a selection range .....	91
To assign a keyboard shortcut to a selection range ..	91

## **Chapter 7. Alter Character Windows**

Opening an Alter Character window .....	93
Character type buttons .....	94
Character display area.....	94
Tools.....	95
Readouts .....	95

Altering a character.....	95
Applying built-in alterations.....	95
Using the arrow tool.....	96
Typing alteration values.....	97
Using guide lines.....	99
Context characters.....	100
Adjusting the character advance width.....	101
Undo and Redo.....	102
Saving altered characters.....	103
Controlling the display.....	103
Resizing the display.....	103
Using the magnifier tool.....	104
To zoom in.....	104
To zoom out.....	104
To toggle the scale.....	105
Scrolling the display area.....	105
Creating fractions.....	106
How to create a diagonal fraction.....	106
How to create a horizontal fraction.....	107
Changing between fraction types.....	107
Creating composite characters.....	107
Editing fractions and composite characters.....	108
Changing composites to normal characters.....	110
Changing fractions to composites.....	110
Changing the separator in a fraction.....	110
Entering special characters into a text box.....	111
Changing the text box font.....	112
Altering multiple characters.....	112
Switch characters by typing.....	112
Previous and next characters.....	113
Creating and using custom alterations.....	113
To create a new custom alteration.....	113
The Customize Alteration dialog.....	114
To update an existing alteration.....	114
To delete a custom alteration.....	115
To reset a built-in alteration.....	115
To rename an alteration.....	115
To assign a keyboard shortcut to an alteration.....	116

## **Chapter 8. Editing Outlines**

Characters and outlines.....	117
Paths.....	118
Segments and join points.....	119
Shape handles.....	120
Beginning and ending outline editing.....	120
Drawing a new character.....	121
Selecting segments.....	121
How selections are displayed.....	122
Using the arrow tool for selection.....	122

Using a selection rectangle.....	122
Modifying the selection.....	123
Using Cut, Copy, Paste and Delete.....	123
Dragging segments .....	124
Dragging join points .....	124
Constraining your drag.....	124
Dragging open ends .....	125
Dragging shape handles.....	125
Separating a shape handle from a join point.....	126
Modifying joints .....	126
Modifying segments .....	127
Other ways of moving segments and joints .....	127
Precise dragging.....	127
Using the arrow keys.....	127
Moving segments numerically.....	128
Moving joints and shape handles numerically .....	128
Using the scissors tool .....	128
Adding and deleting joints .....	128
Splitting a path with the scissors tool.....	129
Using the gizmo tool.....	129
To scale an outline.....	130
To slant an outline.....	130
To rotate an outline .....	131
Using the pen tool .....	131
Establishing a current point.....	131
Drawing straight line segments .....	132
Drawing curved segments.....	132
Adding a straight line segment to a curve .....	133
Adding a curved segment to a straight line.....	133
Closing a path with a curve .....	134
Starting a new path .....	134
Merging outlines.....	134
Requirements for character outlines.....	136

## **Chapter 9. Menu Reference**

File menu .....	137
New (Ctrl+N).....	137
Open (Ctrl+O).....	137
Close (Ctrl+W).....	139
Save (Ctrl+S) .....	140
Save As .....	140
Revert to Saved.....	141
Convert Batch (Ctrl+B) .....	141
Build Font (Ctrl+F).....	147
Import Character (Ctrl+I).....	148
Export Character(s) (Ctrl+E) .....	149
Print (Ctrl+P) .....	151
Print Setup.....	151
Exit.....	152

Edit menu .....	152
Undo (Ctrl+Z) .....	152
Redo (Ctrl+Y) .....	152
Cut (Ctrl+X) .....	152
Copy (Ctrl+C) .....	153
Paste (Ctrl+V) .....	153
Delete (Del) .....	153
Select All (Ctrl+A) .....	154
Select 0-9 .....	154
Select a-z .....	154
Select A-Z .....	154
Customize Range .....	154
Merge Outlines .....	156
Remove Character(s) (Ctrl+R) .....	156
Choose Character (Ctrl+K) .....	156
Options Menu .....	157
Keyboard Layout .....	157
Character Chart .....	158
Show System Font .....	158
Set Font Information .....	159
Set Font Protection .....	162
Snap to Guide Lines .....	163
Alterations menu .....	164
Normal .....	164
Small Caps .....	164
Slant .....	164
Superior .....	164
Inferior .....	164
Customize Alteration .....	164
Alter Character(s) .....	166
Previous Character (Ctrl+left arrow) .....	166
Next Character (Ctrl+right arrow) .....	166
Window menu .....	167
Black and White .....	167
Cascade .....	167
Tile .....	167
Window list .....	167
Help .....	168
Contents .....	168
Search for Help On .....	168
How to Use Help .....	168
About FontMonger .....	168

## **Appendix A. Font Vendors**

## **Appendix B. Customer Support**

## **Index**

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# **Introduction**

Congratulations on your purchase of FontMonger. We're sure your investment will be repaid many times over.

Anyone who has spent hours or days creating a document wants the printed result to reflect the effort that was put into it. That requires having the right fonts, in the right format, in the right application.

However, the continual evolution of font technology has created a wide variety of choices rather than a single solution that is best in all situations.

FontMonger simplifies your font-related decisions and protects your current investment in fonts.

## **System requirements**

- MS DOS/PC DOS 3.1 or later (or DR DOS equivalent)
- Windows 3.0 or greater, in standard or enhanced mode  
To use TrueType fonts generated by FontMonger, you will need Windows 3.1 or greater
- Intel 286, 386 or 486 IBM PC or compatible
- At least 2MB RAM
- A floppy disk drive
- 1MB of free hard disk space

A mouse is required for altering characters

## **Knowledge of Windows**

This User Guide assumes that you are familiar with the Windows environment, including such operations as:

- starting and exiting programs
- resizing, maximizing, minimizing, tiling, cascading and closing windows
- using the Print Setup dialog

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All of these operations are referred to in the User Guide. Consult your Windows documentation if you need more information.

## **Using the User Guide**

The User Guide contains all the information you need to use FontMonger effectively.

**Chapter 1** provides an overview of what FontMonger can do.

**Chapter 2** explains some important concepts used by FontMonger, and explains how you use FontMonger to work with fonts.

You should read at least these two chapters to familiarize yourself with FontMonger's capabilities.

**Chapter 3** is a tutorial which leads you through a typical set of font-related activities.

**Chapter 4** contains a detailed discussion of converting batches of fonts.

**Chapter 5** gives you assistance in installing font files produced by FontMonger, managing your font files, and transferring fonts to or from Macintosh and NeXT computers.

The next three chapters provide detailed step-by-step procedures for customizing fonts. You can refer to these chapters as you need help with specific operations, or you can read the chapters in order to gain an understanding of the challenges involved in working with fonts.

**Chapter 6** discusses keyboard windows, which you use to manipulate groups of characters.

**Chapter 7** discusses Alter Character windows, which allow you to make changes to individual characters.

**Chapter 8** explains how you edit character outlines. This is the most powerful method of changing fonts and so is also the most complex. You should expect to spend some time becoming familiar with the outline editing tools, although some experience with drawing programs like CorelDraw, Adobe Illustrator, Micrografx Designer or Aldus Freehand will give you a head start.

**Chapter 9** is a reference guide to all of FontMonger's menus and dialogs.

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**Appendix A** tells you how to contact the major font vendors. If you have questions about your fonts, contact the vendor directly.

**Appendix B** tells you how to contact Ares Customer Support.

## **Font copyrights**

Creating elegant, useful typefaces is still an art rather than a science. It can take years of work by skilled typographers to create a single typeface.

Ares Software Corp. supports the efforts of type designers and the copyrights they hold in the typefaces they design. We also support the efforts and investments of the companies who publish fonts.

We urge you to check the license agreement for your fonts before using FontMonger to convert or alter them. If you have any questions, please contact the font vendor directly. Appendix A contains a list of font vendors and contact information.





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# Installing FontMonger

## Making a backup

Before you open the FontMonger floppy disk envelope, make sure you read the license agreement printed on it. Please make backup copies only in accordance with the terms of that agreement.

The floppy disk envelope contains four disks:

- FontMonger Program Disk (3½ inch 720KB format)
- FontMonger Program Disk 1 (5¼ inch 360KB format)
- FontMonger Program Disk 2 (5¼ inch 360KB format)
- FontMonger File Translator for Macintosh (Mac 800KB format)

Use either the 3½ inch program disk or the 5¼ inch program disks to complete the FontMonger installation, according to the type of floppy disk drive you have.

*NOTE: Don't attempt to install the File Translator disk on your PC. The disk is formatted for Macintosh systems, and contains an Apple File Exchange translator that allows you to share font files between a Macintosh and your PC. See Chapter 5 for instructions on using the File Translator disk.*

Before installing FontMonger, make a backup copy of the FontMonger program disks:

1. Use **Copy Diskette** from the **Disk** menu in the Windows File Manager to copy the disks.  
If you're not familiar with the procedure for copying disks under Windows, consult the Windows User's Guide.
2. Label the backup disks you just made.
3. Store the original FontMonger disks in a safe place. Use the backup copy you just made to complete the FontMonger installation.

## Registering FontMonger

Registering FontMonger is very important — please do it now before you install the program. Registration allows us to contact

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you about program enhancements and updates. You must also be registered to receive technical support.

To register FontMonger, complete and mail the registration card found in the floppy disk envelope. No postage is required.

### **Recording your FontMonger serial number**

Copy the serial number from your FontMonger software disk to the appropriate blank space in Appendix B of the User Guide. You are now ready to install FontMonger.

## **Running the FontMonger installer**

*NOTE: If you are re-installing or upgrading FontMonger, you must make certain that it is not running when you use the installer.*

1. With Windows running, place the appropriate FontMonger Program Disk in your floppy disk drive.  
If you're installing from the 5¼ inch disk, start with FontMonger Program Disk 1.
2. In the Windows Program Manager, choose **Run** from the **File** menu.
3. Type **A:INSTALL** in the **Command Line** text box, and click **OK** or press **Enter**. If you placed the FontMonger disk in a drive other than drive A, substitute the appropriate drive letter.
4. Follow the instructions that the installer displays.

### **What the installer does**

The installer goes through several steps to install FontMonger:

- It asks you to choose a directory to install FontMonger into. If the chosen directory doesn't exist, the installer creates it.
- It checks to see if a version of FontMonger already exists in that directory, and asks if you want to replace it.
- It copies the necessary files to the directory.

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- It creates a new Program Manager group called “FontMonger” (if it doesn’t exist), and creates a FontMonger icon within the group.
  - It runs the Windows Notepad program to display FontMonger’s README.TXT file.

The installer does not alter any of the following system configuration files:

WIN.INI  
SYSTEM.INI  
AUTOEXEC.BAT  
CONFIG.SYS

### **After installation**

The first thing you should do after installing FontMonger is read the README.TXT file. This text file contains additional information about FontMonger that is not in the User Guide.

Optionally, you may also wish to:

- Drag the FontMonger icon to a different Program Manager group, or delete the icon completely (if you already have an icon for it, or if you always want to run FontMonger using a menu command).
- Create Windows File Manager associations for FontMonger’s document file extensions (.FRF and .FRT). This allows you to run FontMonger by double-clicking on one of its document files in the File Manager.

## **Starting FontMonger**

To start FontMonger, simply double-click on the FontMonger icon. After briefly displaying a window with its name and version number, FontMonger opens its main window.

**NOTE:** *When FontMonger is starting you may notice the Caps Lock light on your keyboard flashing. This is normal. FontMonger analyzes your keyboard each time it starts to determine which keys and key combinations it supports.*



Initially, the main window is maximized to cover the entire screen, but you can click on the **Restore** button at the right-hand end of the title bar, then resize it to any convenient size.

### **Other ways to start FontMonger**

You can also start FontMonger in several other ways using standard Windows procedures for starting applications. For Windows 3.1 these include starting FontMonger:

- By starting an associated file.
- Using Run from the File menu in the File Manager or Program Manager.
- From the Startup group — if you want to have FontMonger run every time you start Windows 3.1.
- By using the Windows “drag and drop” function.

### **Technical support**

If you need technical support for FontMonger, please refer to Appendix B.

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# Chapter 1. About FontMonger

FontMonger is a Windows application that can convert and customize your outline fonts (also known as *scalable* fonts). FontMonger adds value to your existing font collection by making your fonts available in more applications and environments.

## Why convert?

Fonts come from many different sources. Some may have been supplied with your printer, others may have been included with applications. Or, you may have purchased font packages from a font vendor.

Because fonts from different sources are often in different formats, you may not be able to use all your fonts in all your applications. FontMonger converts fonts from their original format into other useful formats.

## Why customize?

Even if your fonts are already in the format you want, they may not be convenient to use. Perhaps your fonts are missing some fractions that you need, perhaps you want to convert your company logo into a font for easy use, or perhaps you want to design an entirely new font.

FontMonger lets you perform all of these customizations, ranging from the very simple to the most typographically demanding.

## What FontMonger can do

FontMonger can manipulate fonts in many ways. With it you can:

- Convert individual fonts or groups (*batches*) of fonts from one format to another.
- Extend fonts by gaining access to characters within the fonts that are not normally accessible. These are called *unencoded* characters.
- Merge characters from several fonts into a single font.
- Alter characters by scaling, slanting or rotating them.
- Add fractions and composite characters such as accented characters to your fonts.

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- Edit character outlines to fine-tune existing characters or to create new ones.
  - Extend fonts by importing characters from graphics programs.
  - Export characters for modification in graphics programs.

### **Sources of fonts**

There are several sources of fonts you might work with in FontMonger:

- TrueType fonts supplied with Windows 3.1.
- PostScript Type 1 fonts supplied with Adobe Type Manager or with your printer, or from numerous other sources.
- Intellifonts that came with your printer, with Type Director or with Intellifont for Windows.
- Nimbus Q fonts supplied with ZSoft SoftType or Zenographics SuperPrint.
- Fonts included with CorelDraw in WFN format.
- LaserMaster LXO fonts that came with your LaserMaster printer controller or plain-paper typesetter.
- Bitstream Fontware fonts that you have converted to PostScript Type 3 format with the Fontware installer.
- PostScript Type 1 fonts from NeXT computers.
- TrueType and PostScript Type 1 or Type 3 fonts from Macintosh computers.

### **Finding font files**

Just knowing that you have a source of fonts isn't enough — you must also know where they are before you can convert or customize them.

The names of font files are often cryptic abbreviations of the actual font names and may reside in directories with equally obscure names. FontMonger has the ability to search directories or entire disks for font files, and can show you the names of the fonts and files it finds.

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## **Converting fonts**

Once FontMonger has helped you find the font files on your disks, it can then convert them to any of the following formats:

- TrueType for Windows 3.1.
- PostScript Type 1 for Adobe Type Manager, Bitstream Facelift and many non-Windows applications (such as Word for DOS, WordPerfect for DOS and GEM Ventura Publisher).
- Nimbus Q for ZSoft SoftType, Zenographics SuperPrint or GeoWorks Ensemble.
- PostScript Type 3 for printers that require the Type 3 format.
- PostScript Type 1 for NeXT.
- TrueType, PostScript Type 1 or PostScript Type 3 for Macintosh.

## **Hints**

Hints are the additional information in outline fonts that assists in producing good-looking characters when the fonts are displayed or printed at low resolutions or small point sizes.

FontMonger automatically adds hints to fonts whenever it produces a font file — as a result of either conversion or customization — in TrueType, PostScript Type 1 or Nimbus Q formats. FontMonger's hinting can actually improve the quality of some fonts.

## **Customizing fonts**

Converting your fonts into different formats is only part of what FontMonger lets you do.

You can rearrange characters within a font, or merge characters from several fonts into a single font.

Many commercial fonts contain characters that are not normally accessible from your keyboard. With FontMonger, you can browse through these unencoded characters and assign useful ones to unused positions on your keyboard.

If you have artwork or a logo you've designed in a drawing application like CorelDraw, Adobe Illustrator or Micrografx



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Designer, you can make new characters by importing the artwork into your fonts.

You can also create fractions or composite characters in your fonts. The composite characters you create could simply be accented characters or might be a combination of several existing characters.

### **Character alterations**

Character alterations are ways of modifying existing characters by transforming the basic character shapes in various ways.

#### **SMALL CAPS**

#### **Slant**

#### **Superscript**

#### **Subscript**

FontMonger has a number of built-in alterations which allow easy creation of small caps or slanted characters, as well as superior (superscript) and inferior (subscript) characters from your existing fonts.

You can also define your own alterations to change characters in exactly the way you need. Your custom alterations can include specifications for scaling, moving, slanting and rotating characters.

### **Editing character outlines**

When you want to make more basic changes to a character — whether by adding, deleting or altering character parts — FontMonger provides you with a complete set of character drawing tools.

These tools let you change any part of a character by editing its outline (the lines and curves that make up the character), or create entirely new characters.

FontMonger's outline editing has many of the capabilities of a full drawing program, including cut, copy and paste functions, a magnifier tool to see greater detail, a pen tool to draw new characters and a unique "gizmo" tool for transforming character parts.

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## Chapter 2. Using FontMonger

The first time you use FontMonger, a window appears covering your entire screen. This is FontMonger's *main window*. Everything that you do with FontMonger appears in this main window.



If you don't want the main window to cover the entire screen, you can click on the **Restore** button in the top-right corner of the screen. This makes the window smaller, revealing window borders that you can drag to resize the window.



In addition, you can minimize FontMonger's main window at any time, by clicking on the **Minimize** button (the second button near the top-right corner of the window). This reduces the main window and all of its contents to a small icon that Windows places along the bottom of your screen.

The main window contains FontMonger's menus — **File**, **Edit**, **Options**, **Alterations**, **Window** and **Help**. You use these menus to tell FontMonger what actions to carry out on your fonts.

### FontMonger document files

FontMonger stores your font data in *font document files*.

You can best understand how FontMonger uses font document files by comparing it with an application like Windows Write, which is a simple word processor supplied with Windows.

Write allows you to create text documents — memos, letters, reports, and so on. When you want to save this text on your disk, Write creates a text document with extension **.WRI**. This extension lets you recognize Write document files when you look at directory listings of your disk. Using "associations" in the Windows File Manager, you can double-click on a Write document file to start the Write application and edit that file.

Similarly, FontMonger allows you to create font documents — files that contain information about fonts. The extension by which you recognize FontMonger document files is **.FRF**, and you can create an association in the File Manager that lets you double-click on a FontMonger document file to start FontMonger and edit that font.

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The familiar **File** menu items **New**, **Open**, **Save** and **Save As** all manipulate FontMonger document files, just as the corresponding menu items in Write manipulate Write document files.

When you open a FontMonger document file, the font is displayed in a window that appears within FontMonger's main window:



This font window is called a *keyboard window*, because it looks like a picture of your keyboard, showing you which characters in the font are associated with which keys on your keyboard.

More information about keyboard windows can be found later in this chapter, and in Chapter 6.

## Font files

The fonts you already have are in TrueType, PostScript, Nimbus Q or Intellifont (or other) formats, and so are not in the form of FontMonger document files. The files containing these fonts are called simply *font files*, to distinguish them from FontMonger document files.

### Opening font files

FontMonger lets you access any font file using **Open** from the **File** menu, but instead of opening the actual font file, FontMonger converts the font and places it into a new FontMonger document. The new document is displayed in an untitled keyboard window, and your original font file is untouched.

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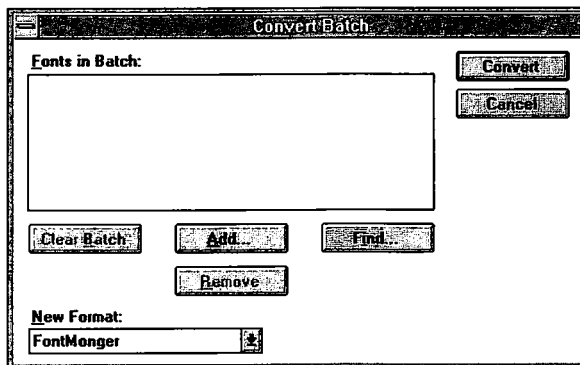
## Building font files

After you have made changes to a font (and, usually, have saved it as a FontMonger document file so that you can easily make more changes later), you need to build a new font file in TrueType, PostScript or Nimbus Q format using **Build Font** on the **File** menu. This new font file is what you install in Windows 3.1, Adobe Type Manager or other type management software.

## Converting batches of fonts

FontMonger allows you to convert font files from one format to another — either one at a time or in batches of multiple fonts. Batches can include font files of various formats.

Choosing **Convert Batch** from the **File** menu brings up the Convert Batch dialog:



The first time this dialog appears, the **Fonts in Batch** list is empty. You add fonts to your batch using either the **Find** or **Add** buttons.

**Find** directs FontMonger to search directories you specify or entire hard drives for fonts it can convert. **Add** provides a convenient way to add single fonts to the batch when you know the directory in which they are located.

Once you've created your batch, simply choose the format you want your fonts to be converted to, and choose **OK**. FontMonger will convert the entire batch without intervention.

**NOTE:** When converting between different font file formats, FontMonger bypasses the creation of FontMonger documents. Each

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*font is simply read, converted and written into a new font file of the chosen format.*

*You can, however, add existing FontMonger document files to a batch, and you can convert any batch of fonts to FontMonger document files by choosing "FontMonger" as the destination format.*

FontMonger remembers your batch even after the conversion is complete. The next time you choose **Convert Batch** from the **File** menu, the batch appears again in the **Fonts in Batch** list. You can then remove all fonts from the batch by choosing **Clear Batch**, remove selected fonts from the batch by choosing **Remove**, or add more fonts by choosing **Find** or **Add**.

## Opening and saving FontMonger documents

There are three ways to open a FontMonger document:

- You can choose **Open** from the **File** menu, and open a font file. FontMonger converts the font and places it in a new untitled keyboard window.
- You can choose **Open** from the **File** menu, and open a FontMonger document that you previously saved.

The title of the keyboard window is the name of the document file.

- You can choose **New** from the **File** menu, to create a new, untitled, keyboard window.

The new font is initially empty (has no characters). You add characters to the new font by pasting them from another font, by importing them from EPS and Adobe Illustrator graphics files, or by drawing them with FontMonger's drawing tools.

You can save a FontMonger document as:

- a normal FontMonger document file with a .FRF extension, or
- a FontMonger document "template" with a .FRT extension.

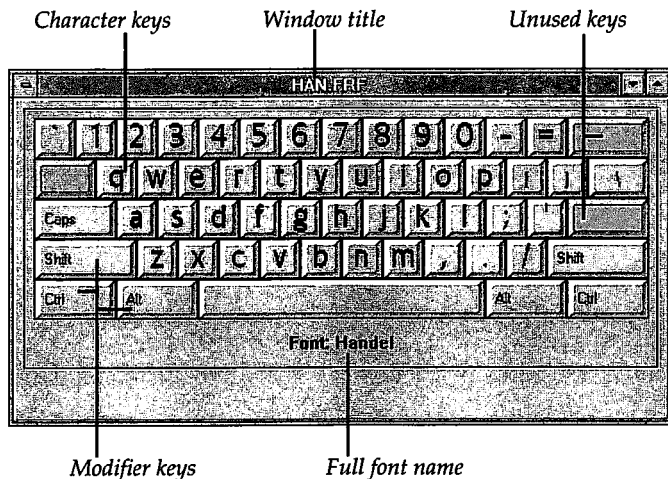
Document templates are identical in format to a normal document file, except that when you later reopen the template

file, FontMonger automatically makes a copy of the document and displays it in a new untitled keyboard window.

Templates are an effective way to create protected documents which you can use as the common basis for several fonts.

## Working with keyboard windows

Much of the work you do with FontMonger documents will be done in keyboard windows:



Each keyboard window corresponds to one FontMonger document. If you open an existing FontMonger document file, the title bar of the keyboard window shows the document file name, and the font's full name appears just below the space key.

If you create a new document (by opening a font file or by choosing **New** from the **File** menu), the title bar of the keyboard window shows you that the document is — until you save it — “untitled,” and the area at the bottom of the window shows the font's full name if it is known.

### Keyboard layout display

The keyboard window is a representation of the physical layout of your keyboard.

**NOTE:** There may be some slight differences from the actual positions of the keys on your keyboard. For example, on different keyboards, the backslash (\) key often varies in position between the

---

*ends of key rows 1, 2 and 4. FontMonger always shows the backslash key at the end of row 2.*

When it starts up, FontMonger determines which keyboard configuration (US keyboard, US International keyboard, etc) you have chosen for your system. In Windows 3.1, you can change your keyboard configuration at any time with the Control Panel, but if you do so you should restart FontMonger so that it detects the new configuration.

On each keycap, FontMonger shows you the character you would get by typing that key (when using the font in a text application like Write). If the font has no character associated with a key, the key uses the System font to show the character it is *normally* associated with, but the character is gray rather than black. Keys that can never have a character associated with them are shown completely gray.



*Keycap with  
associated  
character*



*No associated  
character*



*No character  
association  
possible*

*NOTE: The keyboard window only shows keys in the main part of the keyboard. Function keys, arrow keys and other similar keys are not shown because they can never have a character associated with them. The numeric keypad is not shown because its characters already appear in the top row of the main part of the keyboard.*

When you first open a keyboard window, FontMonger shows you the characters produced by “unshifted” keys (that is, produced when you press keys without holding down the **Shift**, **Alt** or any other *modifier* keys).

You can see the characters associated with “shifted” keys (that is, the characters you get when you type keys with the **Shift** key held down) by clicking on either of the keycaps labeled *Shift* near the bottom of the keyboard window. Click on the *Shift* keycap again to return to the unshifted character display.

Similarly, you can click on the *Ctrl*, *Alt* or *Caps* keycaps — or any combination of them — to see the characters corresponding to the **Ctrl**, **Alt** and **Caps Lock** modifier keys. As before, any key

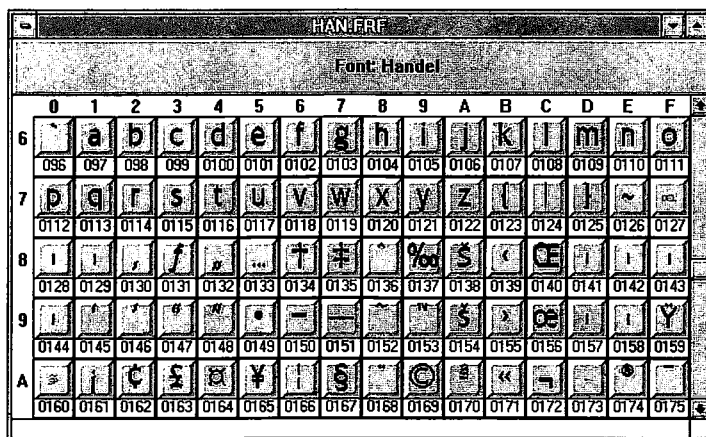
combination without an assigned character is shown with a gray character on it, and any keycap that can never produce a character is shown completely gray.

If your keyboard has dead keys — keys used to form two-character sequences that produce single characters — FontMonger allows you to access them by clicking on the two keycaps in order.

### Character chart display

Your keyboard may not be configured to be able to produce all 256 possible characters in the Windows ANSI character set. If, for example, you need to prepare a font for others to use with a keyboard that's configured differently from yours, you may not be able to locate all the characters you want.

Rather than trying to find the characters by switching between keyboard configurations with the Control Panel, you can instruct FontMonger to display all 256 characters by choosing **Character Chart** from the **Options** menu:



In the character chart display, FontMonger displays a grid of 16 rows and 16 columns. (You may need to resize or scroll the window to see all the rows and columns.)

In each grid position, FontMonger shows you one of the 256 characters in the ANSI character set. Below each character is a number starting with a zero. This is the number you would type from the numeric keypad, while holding down the Alt key, to produce that character.



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If you are not familiar with the **Alt**+numeric keypad method of typing characters, refer to your Windows documentation for details.

You return to the normal keyboard display by choosing **Keyboard Layout** from the **Options** menu.

## Selecting characters

Before you can carry out any operation on characters within a font, you must first select them in the keyboard window.

You select a single character by clicking on its keycap, and select multiple characters by dragging over their keycaps. Hold down either the **Ctrl** or **Shift** key (that is, the real key on your keyboard) if you want to extend a selection with further clicks or drags.

You can also select a character by typing it (on your real keyboard). When typing, hold down **Shift**, **Ctrl** or **Alt** as necessary to get the character you want.

Click in any empty area of the keyboard window, away from any keycaps, or press the **Esc** key, to deselect all selected characters. Or, deselect individual characters by clicking or dragging with the **Ctrl** or **Shift** key held down, or by typing the character again.

## Rearranging characters and combining fonts

With FontMonger, you can rearrange fonts by moving characters around within a keyboard window, or combine fonts by moving characters between keyboard windows.

To make these changes, use **Cut**, **Copy**, **Paste** and **Delete** from the **Edit** menu:

- **Cut** and **Copy** place characters on the clipboard.
- **Paste** replaces selected characters with characters from the clipboard.
- **Cut** and **Delete** both remove characters from a font.

You can also use **Import** from the **File** menu to import graphics and assign them to keys.

## Applying FontMonger's built-in alterations

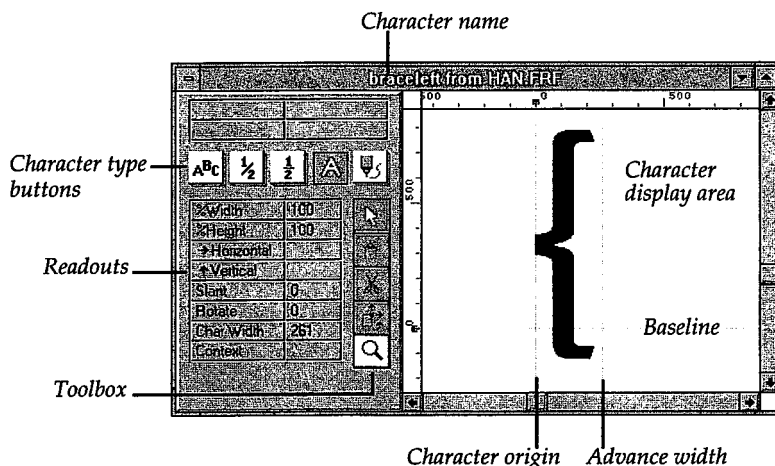
FontMonger provides four built-in alterations which you can apply to selected characters:

- Small Caps
- Slanted
- Superior
- Inferior

To apply these alterations, simply select the characters you want to change, and choose the appropriate alteration from the **Alterations** menu. Choose **Normal** if you need to remove any alterations that you've applied.

## Working with Alter Character windows

In addition to its built-in alterations, FontMonger allows you to modify individual characters in a separate window, known as the Alter Character window:



Using this window, you can create your own custom alterations and add them to the **Alterations** menu. You can then use them just like FontMonger's built-in alterations.

The Alter Character window also allows you to edit the outlines (curves and lines) out of which characters are constructed. You can change the shapes of existing characters, or create brand new characters.

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You open an Alter Character window by double-clicking on a keycap in the keyboard window, or by selecting a keycap and choosing **Alter Character(s)** from the **Alterations** menu.

The five character-type buttons along the top of the Alter Character window are used to construct different kinds of characters.



- Click on the Composite Character button to make a composite character — one which is made up of other characters. When the button is highlighted, you can enter the component characters that make up the composite.



- Click on the Diagonal Fraction button to make a fraction with a diagonal separator. You enter the characters that form the top and bottom parts of the fraction; FontMonger automatically sizes and positions them, and places a diagonal separator between the parts.



- Click on the Horizontal Fraction button to make a fraction with a horizontal separator bar.



- Click on the Normal Character button to change a character back to a normal character from a fraction or composite, or to end outline editing.

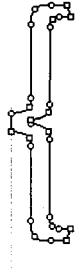
When you open an Alter Character window, one of these first four buttons will be highlighted, indicating the type of character shown in the window. You need to click on another button only if you want to change the character type.



- Click on the Outline Editing button to start editing the outlines that make up a normal character. When the button is highlighted, all of the drawing tools become active. These tools are similar to the tools found in sophisticated drawing programs.

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When you're editing character outlines, the displayed character changes from a solid, filled view to a hollow outline:



The outline is actually made up of curved and straight segments which can be independently sized, moved, rotated, slanted and reshaped. Segments can be cut, copied and pasted between characters using the clipboard — or you can draw new segments.

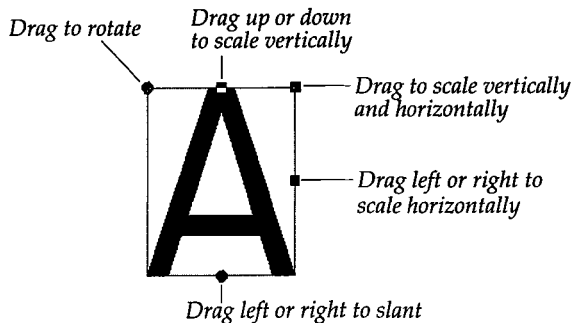
## Altering characters

When a button other than the outline editing button is highlighted, you can scale, move, slant and rotate the entire character:

- To move the character, simply drag on the character image in the display area of the window.

Note that the display area contains rulers and several construction lines to help you position characters properly.

To scale, slant or rotate the character, you must first click on it to make its *handles* appear:



- To scale the character, drag one of the square handles.

- To rotate the character, drag the round handle at the top left.
- To slant the character, drag the round handle at the bottom center.

## Readouts

The readouts text boxes at the left of the Alter Character window show you the horizontal and vertical scale, the position, the amount of slanting or rotation and the character advance width of the character in the window.

XWidth	100
%Height	100
+Horizontal	
+Vertical	
Slant	0
Rotate	0
Char Width	261
Context	

As you drag the character or one of its handles, the readouts change to show you the numerical effect of your drag.

If you prefer, you can type values directly into the readouts instead of dragging. Simply click on any of the readouts text boxes to activate it, and then type the numerical value you want.

Press **Enter** to deactivate the text box when you're done.

## Undo and Redo

You can undo the effects of any change you make to characters in the Alter Character window by using **Undo** from the **Edit** menu. FontMonger provides eight levels of undo, plus the ability to redo your changes, so it's easy to correct mistakes or change your mind about how you want your characters to look.

## Saving customized alterations

When you've made alterations to a character in the Alter Character window, you can create a custom alteration that allows you to apply the same alteration to other characters in the font.

Simply choose **Customize Alteration** from the **Alterations** menu and give your alteration a name. Your alteration will then appear in the **Alterations** menu, and can be applied to characters just like the built-in alterations.

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## Chapter 3. Tutorial

This tutorial is designed to take you effortlessly through the major functions of FontMonger.

Before starting the tutorial, you should install FontMonger according to the installation instructions at the beginning of the User Guide.

### Tutorial files

The tutorial assumes that you installed FontMonger into a directory called **\fmonger**. If you specified a different directory during installation, substitute the name of your directory where appropriate.

The files used by the tutorial are located in the **samples** sub-directory of the **\fmonger** directory. You should find the following files in the **samples** sub-directory:

**itlogo.ai**  
**marks.ttf**  
**prospec.fnt**  
**prospecb.fnt**  
**ticker.fnt**

*NOTE: These files are for use in this tutorial only. The fonts do not contain complete character sets, so they are not usable as real fonts. You should not install them in your system.*

---

**11:03  
am**

It's Spring, and that means it's annual report time again at **Ivory Tower Investment Bankers, Inc.** (which is known to the world simply as "IT").

You are in charge of Corporate Publishing Services for IT, but that doesn't stop everyone from dumping their problems on your desk and expecting you to solve them right away.

Today's crisis begins when a corporate decision is made to move the annual report publishing in-house. You have until tomorrow to produce the annual report.

Recently, your department upgraded to Windows 3.1 and decided to standardize on TrueType fonts. Unfortunately, your corporate fonts are in Nimbus Q, format which you can't install directly into Windows 3.1, while the QBlaster software you previously used to install them doesn't work with Windows 3.1. The soonest you can get an upgraded version of QBlaster is next week.

Grumbling quietly to yourself, you open up your Far Side calendar software and begin making a list of things to do...

## **Starting FontMonger**

Start up the FontMonger application by double-clicking on the Windows Program Manager icon that the FontMonger installer created for you.

**11:16  
am**

Your first task is to convert your fonts to TrueType format.

The annual report uses three special fonts: Prospectus (your corporate typeface), Prospectus Bold and Ticker Tape — a typeface that was designed specially for IT by famous typographer Roger Berlin.

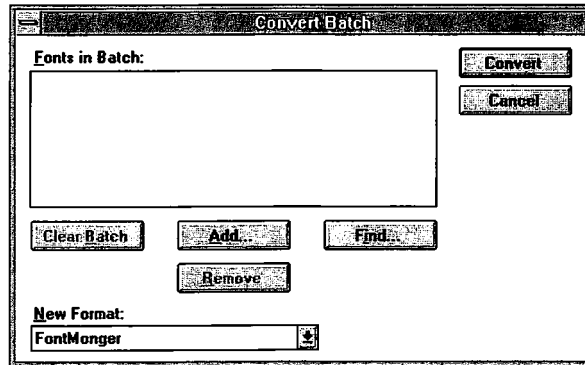
You're not sure what you're going to use Ticker Tape for, but you know you'd better use a lot of it in the annual report somewhere...

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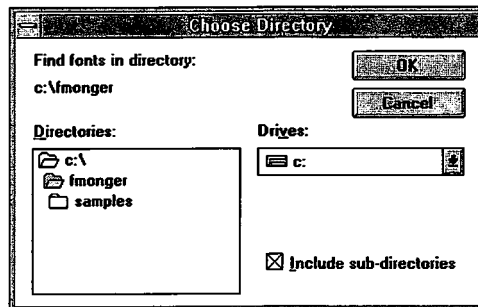
## Converting a batch of fonts

You'll begin by converting all of the fonts you are going to use into TrueType format. You'll create a "batch" of fonts so that you can convert them all at the same time.

1. Choose **Convert Batch** from the **File** menu. The Convert Batch dialog appears:



2. Click **Find**. The Choose Directory dialog appears:



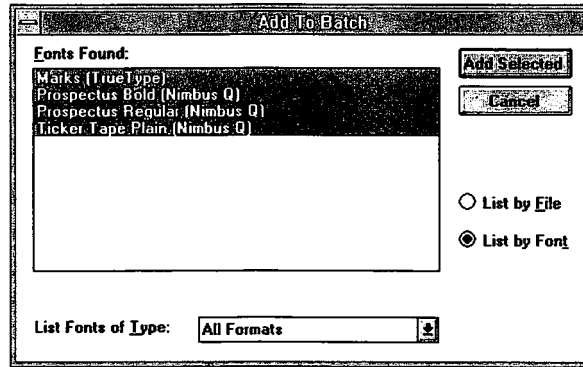
If you started FontMonger by double-clicking on its Program Manager icon, the current directory shown in this dialog should already be set to **\fmonger**. If not, you'll need to use the **Directories** list to navigate to the **fmonger** folder.

3. Double-click on **samples** to make it the current directory.



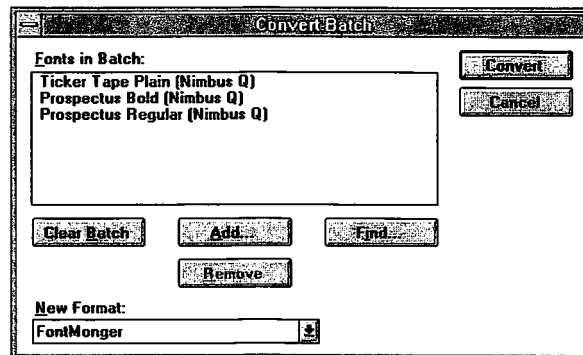
4. Click **OK**.

FontMonger examines all the files in `\fmonger\samples`, finds four fonts and displays them in the Add to Batch dialog:



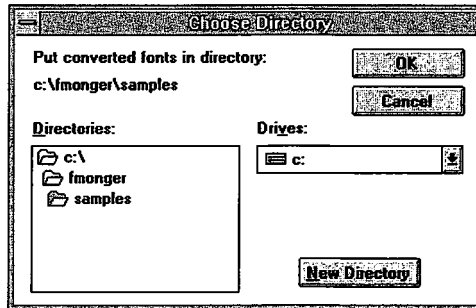
Notice that Marks is already a TrueType font, so you won't need to convert it.

5. Hold down the **Ctrl** key and click on the entry that reads **Marks (TrueType)**. Marks becomes unselected while the other three fonts remain selected.
6. Click on the **Add Selected** button. The three selected fonts are added to the batch and appear in the **Fonts in Batch** list of the Convert Batch dialog:



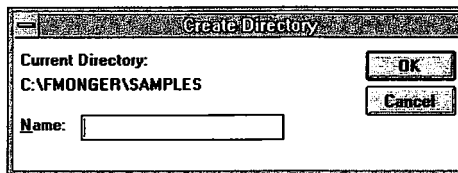
7. Drop down the **New Format** list by clicking on its down-arrow and select **TrueType** from the list.

8. Click **Convert**. The Choose Directory dialog appears:



It's best to create a new directory for the converted fonts, so that you can keep them separate from the originals.

9. Click **New Directory**. The Create Directory dialog appears:



10. Type **itfonts** in the **Name** text box and click **OK**.

In the Choose Directory dialog, you will see that **\fmonger\samples\itfonts** is now the current directory.

11. Click **OK** to start the conversion process.

During conversion, a progress dialog shows the steps FontMonger follows to convert each font — reading the source font file, hinting the font, and building the destination font file.

You have now converted the three fonts to TrueType format. The new font files are **ticke1.ttf**, **prosp2.ttf** and **prosp3.ttf** in directory **\fmonger\samples\itfonts**. FontMonger assigned these file names during conversion, based on the full font names of the fonts. The TTF extensions indicate TrueType format.

**NOTE:** The numbers in the file names represent the order in which FontMonger converted the fonts. If FontMonger converted your fonts in a different order from the one shown here, the numbers will be different.

**11:32  
am**

Your next task is to create a small caps version of Ticker Tape.

After last year's annual report was printed, someone complained that the small caps used for the disclaimer information were simply capital letters in a smaller point size.

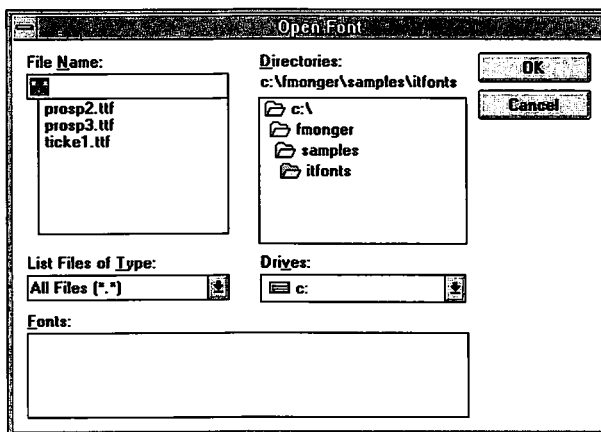
As a result, you got a memo insisting that this year's annual report must not repeat the same mistake.

You still have the memo on your desk. You can even almost read it through the coffee stains...

## Opening a font

Before you can do anything to the Ticker Tape font, you must open it:

1. Choose **Open** from the **File** menu. The Open Font dialog appears:



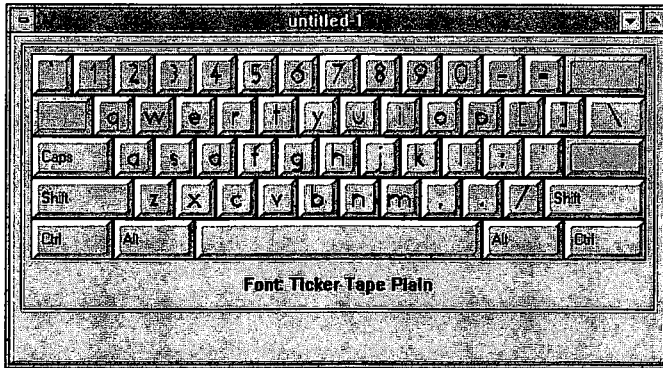
2. The current directory should still be **\fmonger\samples\itfonts**. If not, navigate to the **itfonts** directory.

The **File Name** list shows the three files that were created as the result of the batch conversion you did earlier.

3. Click on **ticke1.ttf** to select it. The full name of the font, Ticker Tape Plain, appears in the **Fonts** list.

4. Click **OK** to open the font.

When the font has been opened, you will see its keyboard window:



The title bar of this window says "untitled-1", which tells you that FontMonger has copied the font file into a new FontMonger font document. The changes you are about to make will affect this new font document, leaving the TrueType font file untouched.

The full name of the font — Ticker Tape Plain — appears at the bottom of the keyboard window.

## Altering a font — creating small caps

Creating a small caps version of Ticker Tape requires a little advance planning.

You are going to use the regular capital letters from Ticker Tape to make the small capital letters. But small caps are usually used in place of *lowercase* letters — full-size caps are used along with small caps:

*Without small caps*

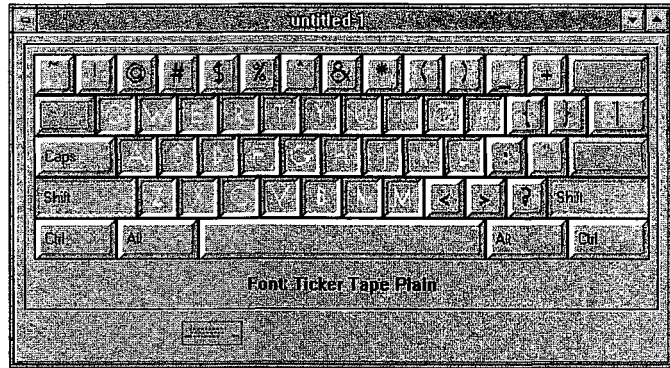
**One Two Three**

*With small caps*

**ONE TWO THREE**

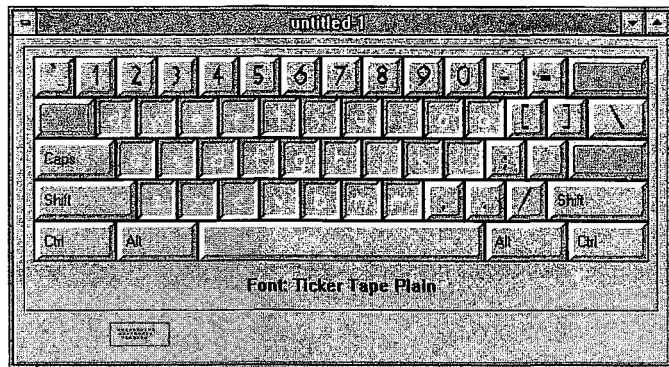
So, you must be careful to preserve the uppercase letters, and change only the lowercase. You will do this by making a copy of the uppercase letters.

1. Choose **Select A-Z** from the **Edit** menu. The keycaps for the uppercase letters are now highlighted to look as if they've been pressed down, indicating that they are selected:



Notice that the *Shift* keycaps in the window are also highlighted. This reflects the fact that you hold down the **Shift** key on your keyboard whenever you want to type an uppercase letter.

2. Choose **Copy** from the **Edit** menu. This places a copy of the selected characters onto the clipboard.
3. Now choose **Select a-z** from the **Edit** menu. The uppercase letters are deselected and the lowercase letters are selected instead:



The *Shift* keycaps are no longer highlighted, since you type lowercase letters without pressing the **Shift** key.

4. Choose **Paste** from the **Edit** menu.

---

Since there are already characters on the selected keycaps, FontMonger asks you to confirm that you want to replace those characters. Click **Yes** to replace the lowercase letters with a copy of the capital letters.

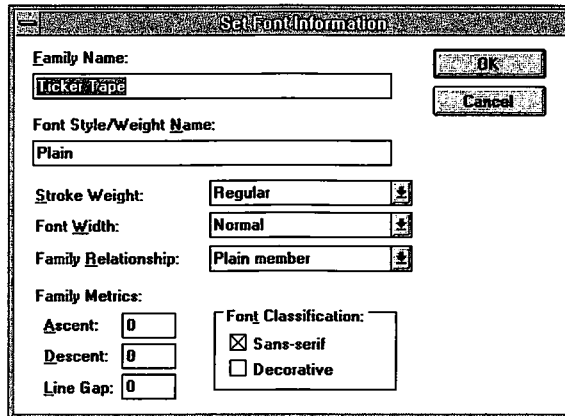
Now you can turn the lowercase letters into small caps.

5. The letters you pasted should still be selected. If they're not, choose **Select a-z** from the **Edit** menu again to select them.
6. Choose **Small Caps** from the **Alterations** menu. You can see the characters on the selected keycaps change as FontMonger turns them into small caps.

You can compare the small caps to the full-size caps by clicking on the *Shift* keycap.

The font now contains the small caps you want, but there's another important change you need to make — you have to give the font a new name.

7. Choose **Set Font Information** from the **Options** menu. The Set Font Information dialog appears:

The image shows a 'Set Font Information' dialog box. It has a title bar with the text 'Set Font Information'. Inside, there are several fields and controls. At the top left is 'Family Name:' with a text box containing 'Ticker Tape'. To the right of this are 'OK' and 'Cancel' buttons. Below 'Family Name' is 'Font Style/Weight Name:' with a text box containing 'Plain'. To the right of this are three dropdown menus: 'Stroke Weight:' with 'Regular', 'Font Width:' with 'Normal', and 'Family Relationship:' with 'Plain member'. Each dropdown has a small arrow icon on the right. Below these is a 'Family Metrics' section with three input boxes: 'Ascent:' with '0', 'Descent:' with '0', and 'Line Gap:' with '0'. To the right of these is a 'Font Classification' section with two checkboxes: 'Sans-serif' (checked) and 'Decorative' (unchecked).

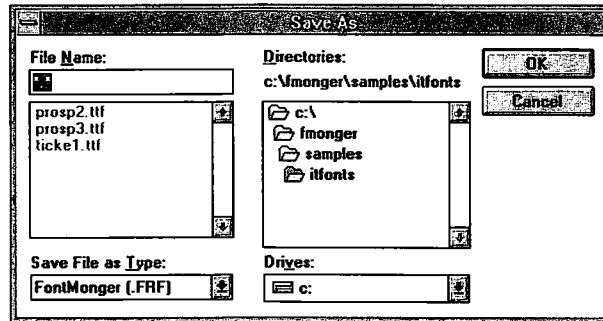
The **Family Name** text box shows **Ticker Tape**, which you don't want to change, but the **Font Style/Weight Name** text box still says **Plain**. Unless you change this name, your small caps font will have the same name as the original Ticker Tape font, which will cause a problem when you install both fonts in Windows 3.1. You also need to make sure that Windows will realize that this is not the "normal" Ticker Tape font.

8. Type **Small Caps** in the **Font Style/Weight Name** text box.
9. Choose **Other family member** from the **Family Relationship** drop-down list.
10. Click **OK**. You can see the new font name at the bottom of the keyboard window.

## Saving a font

Since you've done some significant work on your font, you'd better save it on disk:

1. Choose **Save** from the **File** menu. Because the font is untitled, the **Save As** dialog appears so that you can specify where you want it saved:



2. Type **tickersc** in the **File Name** text box. Don't type an extension, because FontMonger will supply the correct extension (.FRF) automatically.
4. Make certain that the current directory is still **\fmonger\samples\itfonts**. If not, navigate back to the correct directory.
5. Click **OK**. The small caps font is saved as a FontMonger document file with file name **tickersc.frf**.

You're done with the small caps font for now. (You still have to build a font file that you can install into Windows 3.1, but you'll get to that later.) Choose **Close** from the **File** menu to close the keyboard window.

**11:59  
am**

Your assistant has been working for three weeks on the financial tables that are to appear in the annual report. You're not sure exactly what's taking him so long, but after giving the matter some thought you decide you'd rather not know.

Now he comes into your office and starts complaining. You can't help feeling that your assistant does a lot of whining these days.

Once you start listening to what he's saying, you hear that he just received an email with some last minute changes to the tables which require a one-quarter fraction. Your fonts don't have a one-quarter fraction.

Suddenly you feel like whining too...

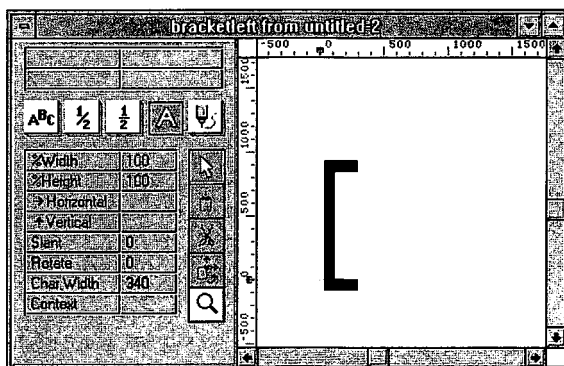
## Creating a fraction

When you created small caps, you made an entirely new font. This time you're going to create a new version of Ticker Tape Plain.

1. Open file **ticke1.ttf** again, just like you did before you created the small caps font. As before, FontMonger makes a copy of the font and displays it in an untitled keyboard window.

Since you know that the annual report doesn't have any brackets in it, you'll replace the left bracket with your one-quarter fraction.

1. Double-click on the [ keycap in the keyboard window. FontMonger opens an Alter Character window:







2. Click on the Horizontal Fraction button (the third button in the horizontal row of buttons near the top of the window).

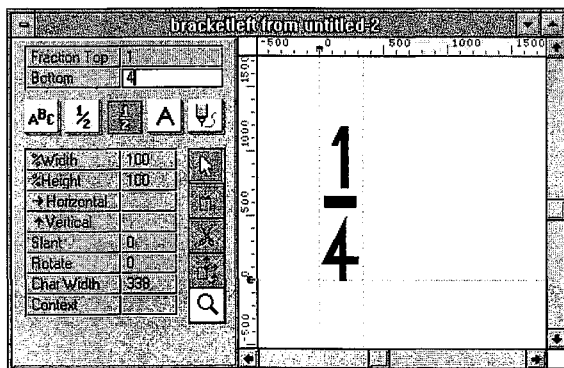
Two text boxes appear just above the button so that you can enter the parts of the fraction.

FontMonger automatically puts the number 1 into the **Fraction Top** text box and selects the text to show that the text box is active. Since the number 1 is exactly what you want, you only have to change the bottom part of the fraction.

3. Press **Tab** to activate the **Fraction Bottom** text box. Since there can only be one active text box at a time, this makes the **Fraction Top** text box inactive.

You can also activate a text box by clicking on it.

4. Type **4** in the **Fraction Bottom** text box. The character display area of the window shows an enlarged view of the fraction:



5. Close the Alter Character window by double clicking on the system menu icon at the left end of the title bar. You'll see that the **[** key now shows the fraction  $\frac{1}{4}$ .

6. Close the keyboard window, too. Double-click on its system menu icon, or choose **Close** from the **File** menu.

Since the keyboard window represents a new font document, FontMonger asks you if you want to save the document.

7. Click **Save**. FontMonger then asks for the file name to use for the new font document file.
8. Type **ticker**. FontMonger supplies the .FRF extension and saves the font.

**12:20  
pm**

Just as you're about to leave on a *long* lunch break — maybe 20 minutes or so — a courier arrives with a disk containing the new IT logo artwork.

You'd forgotten about the new logo.

You realize that you could save quite a lot of time in laying out the annual report if the new logo was a character in a font. You would then be able to place it with a single keystroke, instead of having to import the artwork file at all the places where the logo occurs.

You try to tip the courier, but she gives the money back to you, saying that she doesn't accept small bills...

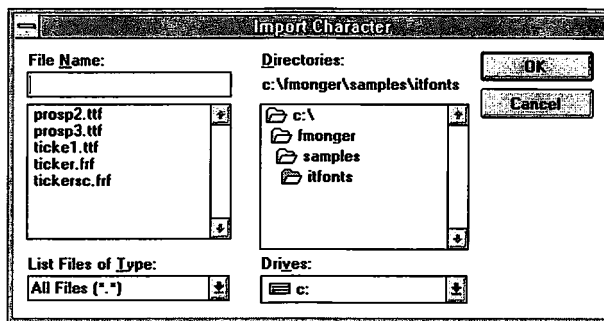
## Importing a logo

You'll put the logo into the version of Ticker Tape Plain to which you earlier added the fraction.

1. Open the file **ticker.frf**. You're opening a FontMonger font document file, so the keyboard window isn't untitled this time — the window's title bar shows the document file name.

Since you already used the left bracket for the fraction, you may as well use the right bracket for the logo.

2. Click on the ] keycap in the keyboard window to select it.
3. Choose **Import Character** from the **File** menu. The Import Character dialog appears:



The current directory is probably still **\fmonger\samples\itfont**. The logo file is in the parent directory **\fmonger\samples**.

- 
4. Double-click on the **samples** directory name in the **Directories** list to make it the current directory.
  5. Double-click on the file named **itlogo.ai** in the **File Name** list.

Double-clicking on a file name is a shortcut that has the same effect as clicking on the name to select it then choosing **OK**.

When the import is finished, you'll see the logo appear on the **] key**. Because the keycap is small, you can't see the logo very well. If you want to examine the logo more closely, double-click on the **] key** to open an Alter Character window, which will show you an enlarged view of the logo. Close the Alter Character window when you're done.

There's only one thing left to do:

6. Save the font by choosing **Save** from the **File** menu.

**1:11  
pm**

Lunch was California cuisine — 5 grams of Vitamin C washed down by a bottle of mineral water. This is the healthiest food you've eaten in a week.

Physically refreshed, you return to work. With a vague plan of anticipating the next problem to walk into your office, you decide to check the Ticker Tape font yourself.

You print six laser printer test pages, and sure enough there are more characters missing from the font. The trademark symbol, the registered trademark symbol and — inexplicably — the dollar sign are all missing.

The sixth test page is also missing. It seems to have got lost somewhere inside the laser printer, but you know better than to try to find out what happened...

## Creating a dollar sign

A dollar sign looks very much like a capital letter **S** with a vertical bar through it. Since the Ticker Tape font already has a capital **S**, you'll use that to create the dollar sign.

First, copy the capital S onto the dollar sign key.

1. Click on either of the *Shift* keycaps in the keyboard window to show the characters that are typed when the **Shift** key is held down.

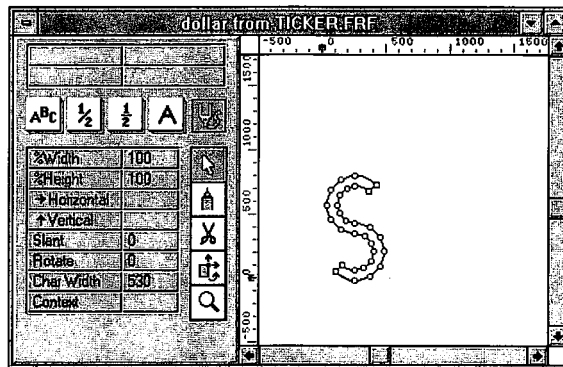
You'll see Ticker Tape's S in its usual place between A and D. Notice also that the fifth keycap in the top row has a gray dollar sign on it.

This means that the keycap is the normal position of the dollar sign, but that there is no dollar sign assigned to it.

2. Click on the S keycap to select it, and choose **Copy** from the **Edit** menu. This places a copy of the S onto the clipboard.
3. Click on the \$ keycap to select it and choose **Paste** from the **Edit** menu. A copy of the letter S appears on the \$ keycap.

Now you'll draw a vertical bar through the S with FontMonger's drawing tools.

4. Double click on the \$ keycap to open the Alter Character window.
5. Click on the Outline Editing button (the fifth button in the horizontal row of buttons).



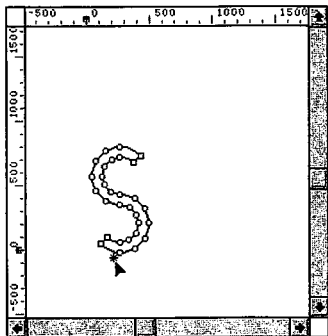
The character isn't shown black-filled any more. What you're seeing now is the underlying character "skeleton."



6. Activate the pen tool by clicking on its icon in the toolbox (the second tool in the vertical column of tools).

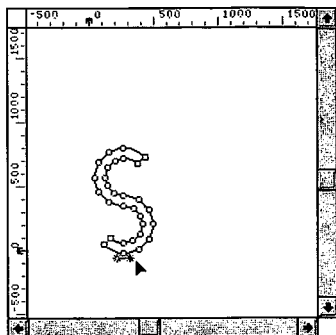
To draw the vertical bar, you will click five times with the pen tool: one time to start the outline of the rectangular bar, then once for each of the four sides.

7. Move the mouse pointer just below the base of the S, a little to the left of center, and click.



A small “starburst” shape appears where you clicked. This is the first corner of the rectangle.

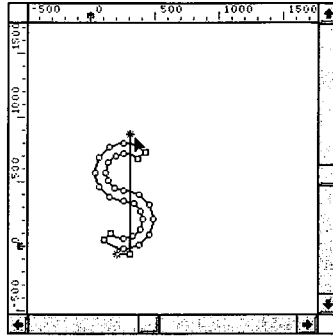
8. Move the mouse pointer about the same distance to the right of center and, holding down the **Shift** key on your keyboard, click a second time.



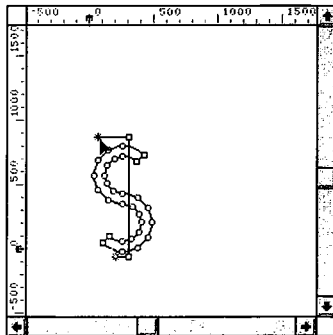
A short line connects the two places you clicked. As before, a starburst marks the end of the line you just drew.

Holding down the **Shift** key forces FontMonger to draw a line that is exactly horizontal.

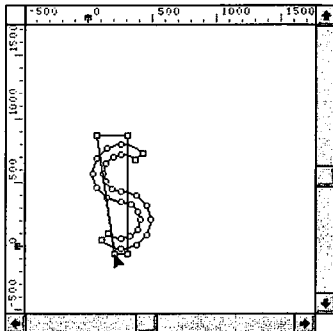
- 
9. Move the mouse pointer straight up to the top of the S. Holding down the **Shift** key again, click just above the top of the S. This time, the **Shift** key gives you a line that is precisely vertical.



10. Move the mouse pointer to the left of the center of the S and click, once again with the **Shift** key held down.



11. Move the mouse pointer back down to the place you started, and click on the first point in the rectangle.



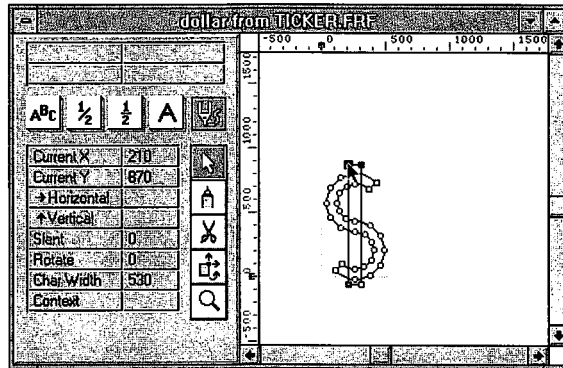
You don't have to be exact. When the pointer is over the first point of the rectangle, the point "lights up" with a big black circle.

As long as the point is lit up, your mouse pointer is in the right place.

Unless you were very lucky, the last line you drew isn't exactly vertical, but that's easy to fix.



12. Activate the arrow tool by clicking on its icon in the toolbox.
13. Press and hold the **Shift** key, then drag the top left corner of the rectangle to the left or the right until the left side of the rectangle is exactly vertical.

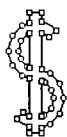


Just as when you first drew the rectangle, the **Shift** key forces the top of the rectangle to stay exactly horizontal.

Although you've done the hardest part, you're not quite finished yet.

The rectangle you just drew overlaps the S shape. Unfortunately, characters with lines that cross will not print correctly. (The software that drives your printer relies on the fact that there are no crossing lines, in order to simplify its mathematical calculations and thus speed up the printing process.)

You *could* use the scissors tool to cut the character up into pieces and remove the parts that overlap, but luckily there's an easier way.



14. Choose **Merge Outlines** from the **Edit** menu. Then sit back and watch FontMonger do all the work for you.
15. Close the Alter Character window.

You've probably anticipated the last step, which is:

16. Save the font by choosing **Save** from the **File** menu.

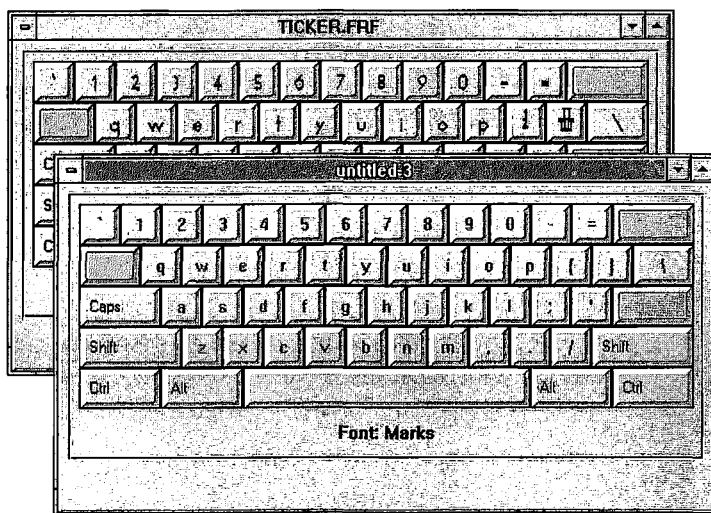
This time, since you're saving an existing font document, FontMonger doesn't need to ask you for the file name.

## Copying and pasting between fonts

The Ticker Tape font is almost complete. It's still missing the trademark and registered trademark symbols, but you have them stashed away in the Marks font.

1. With the Ticker Tape keyboard window still open, choose **Open** from the **File** menu and open the **marks.ttf** file in directory **\fmonger\samples**.

You now have two keyboard windows open — one for Ticker Tape and one for Marks.



Look carefully at the Marks window. All the keycaps have gray characters, meaning that all those characters are missing from the font. Click on a *Shift* keycap. All *those* characters are missing from the font, too.

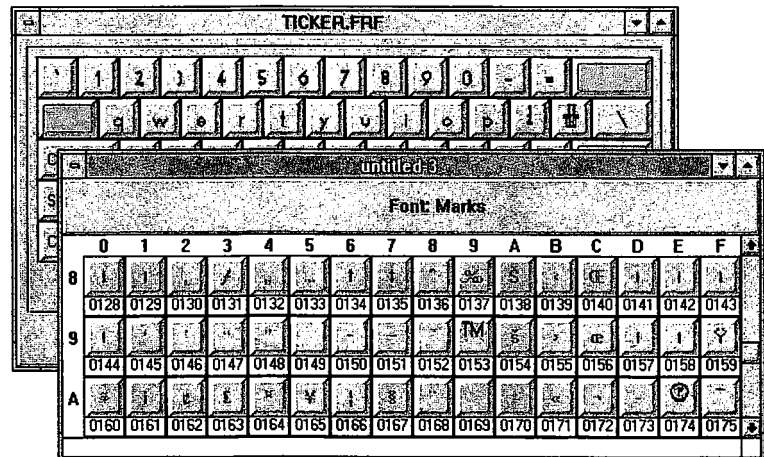


In fact, if you're using the standard U.S. keyboard configuration, you won't be able to find any characters anywhere — the only two characters in the font (™ and ®) aren't assigned to keys on the U.S. keyboard!

But there is a way of getting the characters:

2. Choose **Character Chart** from the **Options** menu. (Make sure that the Marks keyboard window is in front of the Ticker Tape window when you do this.)

Instead of the usual character layout, FontMonger now shows you a chart of all 256 possible characters in a Windows font, arranged into a grid of 16 rows and 16 columns.



You can resize or scroll the window to see all of the characters. You'll find ™ in row 9, column 9 and ® in row A, column E.

3. Click on the ™ keycap to select it, then hold down the **Ctrl** key and click on the ® keycap to select it too. (If you don't hold down **Ctrl**, ™ will be deselected when you select ®.)
4. Choose **Copy** from the **Edit** menu.

You'd like to have ™ and ® easily accessible from your standard U.S. keyboard, so you'll replace the { and } characters, which you aren't likely to use. The { and } characters are assigned to the same keys as [ and ], which you replaced earlier, except that they require the **Shift** key to be held down.

- 
5. Click on the Ticker Tape keyboard window to bring it in front of the Marks window.
  6. Click on the *Shift* keycap to select it. The { and } characters are now displayed in the second row of keycaps.
  7. Drag from the { keycap over the } keycap. This is an easy way to select multiple characters.
  8. Choose **Paste** from the **Edit** menu, and reply **Yes** to FontMonger's confirmation message. The ™ and ® characters now replace the { and } characters on the selected keycaps.
  9. Save the Ticker Tape font by choosing **Save** from the **File** menu.
  10. Close the Marks window. Choose **Don't Save** when FontMonger asks if you want to save it.

**3:45  
pm**

Your assistant rushes back into your office and starts talking at you very fast.

As far as you can tell, he's trying to tell you that he has finished the financial tables, but he has to leave work in fifteen minutes to collect a pair of tickets for tonight's (and tomorrow night's and the next night's and the next night's) performance of the operas in Wagner's "Ring" cycle, so he needs the final version of the Ticker Tape font right away.

You look at him calmly for a long moment, to show him how it's done, then tell him, "Just wait for a minute."

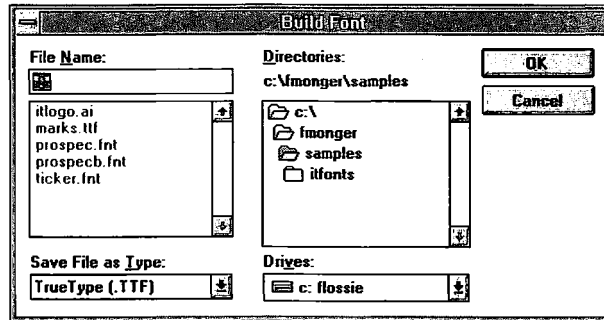
You sincerely hope he'll be quiet while he's waiting...

## **Building a font file**

Your customized fonts — Ticker Tape Plain and Ticker Tape Small Caps — are now complete. All that remains is to build the TrueType font files that you will install into Windows 3.1.

1. Open a keyboard window for Ticker Tape Plain, if it isn't still already open.

2. Choose **Build Font** from the **File** menu. The Build Font dialog appears:



3. Type **ticker** in the **File Name** text box, and navigate back to the **\fmonger\samples\itfonts** directory.
4. The **Save File as Type** drop-down list should already have **TrueType (.TTF)** selected. If not, choose it from the list.
5. Click **OK**. FontMonger builds the font file **ticker.ttf**.

Repeat the process for Ticker Tape Small Caps, naming the font file **tickersc**.

You can now install all your fonts using the Windows 3.1 Fonts control panel, and immediately use them to finish off the annual report.

**5:30  
pm**

You glance at your watch, then start shaking it vigorously because it seems to have stopped at 5:30. After a few moments, you realize that it really *is* 5:30. You're not sure why, but there doesn't seem to be anything else to do except go home.

You nearly make it as far as the revolving doors leading out of the building when your assistant catches up with you. He says, "They want you to change something before you go. It won't take long...."

It's strange, your watch seems to have stopped at 5:30 after all.

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## Chapter 4. Converting Fonts

Outline fonts come in a number of different formats, each having its own mathematical system for describing the shapes of characters and its own system for storing them.

As well as the TrueType or PostScript fonts that you use with Windows, you may also have many other fonts that came with other software packages — fonts that you paid for. Previously you may have been unable to use these fonts with Windows, because they were not in the correct format.

This scenario is especially likely if you recently started using Windows for the first time, since you may have a library of fonts that you used with your older DOS programs.

FontMonger can convert fonts between many different formats so that the fonts you have may be usable within most of your applications.

### An overview of converting fonts

When you convert a font file, you change its format. Font files are converted in groups called *batches*. The steps necessary to create and build a batch of fonts are:

1. Choose **Convert Batch** from the **File** menu to bring up the Convert Batch dialog.
2. Create the batch of fonts you want to convert.

To add one font at a time to the batch, click **Add** and choose the font file from the Add To Batch dialog.

To add several fonts, click **Find** and choose a directory for FontMonger to scan for fonts. When the search for fonts in the directory is complete, add some or all of the found fonts to the batch.

3. Choose a new format from the **New Format** drop-down list.
4. Choose **Convert**. A dialog appears, asking for the directory in which you want to save the converted fonts.
5. Select an existing directory, or use the **New Directory** button to create a new directory, and choose **OK**.

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FontMonger then converts the fonts and saves them in the directory you chose.

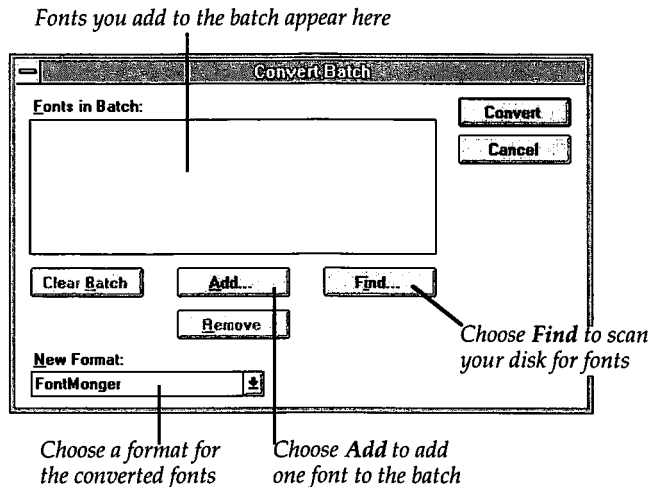
FontMonger names the files containing converted fonts by using the first five characters of the font's full name (not the source file name) followed by a number to make the names unique.

## Creating a batch of fonts

When creating a batch of fonts, you can mix fonts of different formats in the batch. FontMonger reads and converts the fonts and saves them in a single destination format.

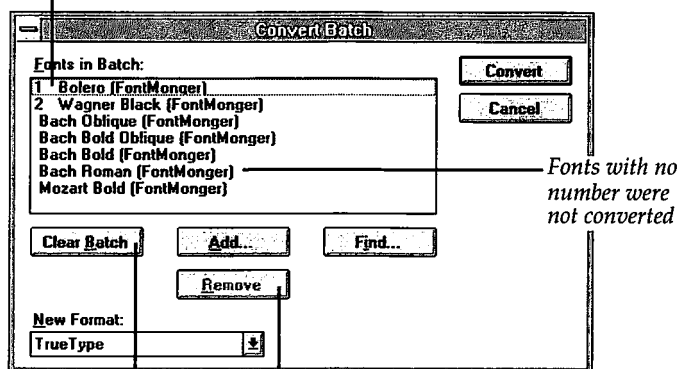
### The Convert Batch dialog

The first time you choose **Convert Batch** from the **File** menu, the following dialog appears:



When you bring up the Convert Batch dialog on a subsequent occasion, the **Fonts in Batch** list shows the fonts that you previously placed in the batch:

*Fonts preceded by a number have been successfully converted*



*Fonts with no number were not converted*

*To start a new batch, choose **Clear Batch***

*To remove only selected fonts from the batch, choose **Remove***

This makes it easy to reconvert the same fonts (perhaps because the first conversion was interrupted, or because you also want to convert the fonts to another format).

The number that precedes the name of a converted font in the **Fonts in Batch** list is the same one that FontMonger used to construct the converted font's file name.

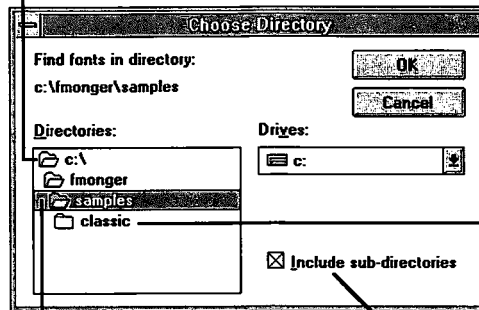
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## Finding fonts to convert

If you don't know exactly where to find the font files on your system, FontMonger can scan your disk looking for files it can convert. You can tell FontMonger to scan the entire disk, or just one directory:

1. Click **Find** in the **Convert Batch** dialog. The Choose Directory dialog appears:

*"Parent" directories of the current directory*



*This is the current directory — the one that FontMonger will scan for fonts*

*Sub-directories of the current directory*

*Choose this option to scan sub-directories automatically*

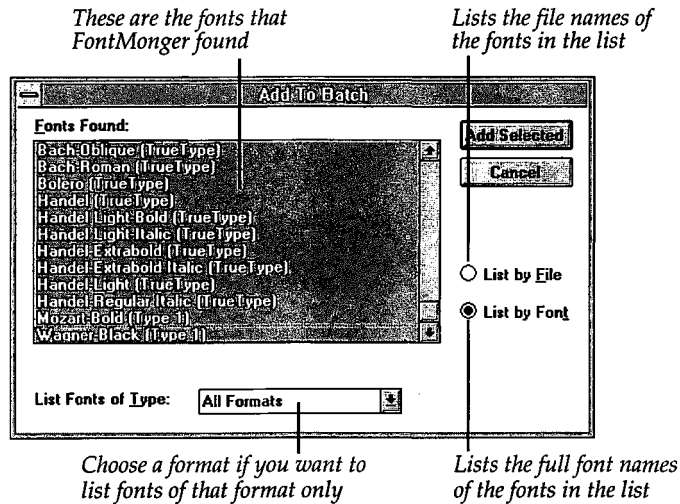
2. Use the **Directories** list box to find the directory that you want FontMonger to search.

When you have found the directory you want, double-click on it (or select the folder and press **Enter**) so that it has a gray open folder icon beside it.

3. Choose the **Include sub-directories** option if you want to search sub-directories of your chosen directory.

If you want to search an entire disk, choose the "root" directory of the disk (such as C:\) as the directory to search and choose the **Include sub-directories** option.

4. Choose **OK** to start scanning the chosen directory. When the scan of the files in the directory is complete, the Add To Batch dialog appears:



5. Select the fonts you want to add to the batch.

Alternatively, since all fonts are initially selected, you can deselect the fonts you *don't* want to add to the batch.

- Click on a single font to select it and deselect all other fonts.
- Drag or Shift-click to select a continuous range of fonts.
- Ctrl-click on an unselected font to select it, or on a selected font to deselect it, without affecting other fonts.
- Ctrl-drag on unselected fonts to select (or on selected fonts to deselect) a continuous range of fonts without affecting other fonts.

6. Choose **Add Selected** to add the selected fonts to your batch.

If you need to search other directories or disks, you can repeat this process. Each time you choose **Add Selected**, the selected fonts are added to the fonts already in the batch.

**NOTE:** FontMonger will not add a font to the batch more than once.

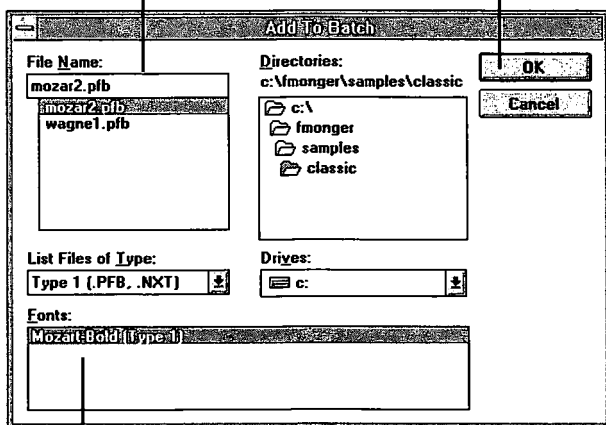


## Adding a single font

If you want to add a single font to the batch and you know its file name, choose **Add** in the Convert Batch dialog. The Add To Batch dialog appears:

*Choose the file that contains the font you want*

*Choose **OK** to add the selected font to the batch*



*This part of the dialog is the same as the standard Windows 3.1 Open File dialog*

*If the selected file contains more than one font, select the font you want*

Notice that the **List Files of Type** drop-down list can help you locate files faster. By choosing one of the items from this list, you restrict the **File Name** list to files having the corresponding extension.

The **Fonts** list remains empty when you select a file that is not a font file, or that does not contain any fonts.

## Converting a batch of fonts

After you've constructed your batch of fonts by using **Clear Batch**, **Add**, **Find** and **Remove**, converting them is a simple process:

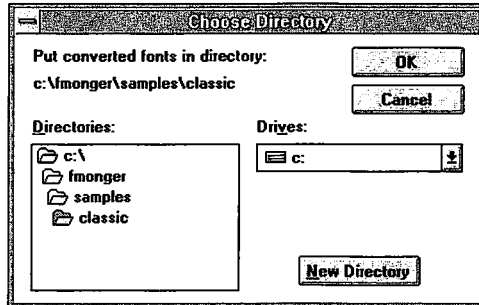
1. Drop down the **New Format** list to display the formats to which you can convert your fonts.
2. Choose a format from the list. All fonts in the batch will be converted to this format.

If you choose **FontMonger** as the destination format, the fonts in the batch are not converted to another font format. Instead,

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they are simply saved as FontMonger font document files. If you plan to make changes to a number of font files, batch converting them in advance to document files will speed the process of opening them to make changes.

3. Choose **Convert** to bring up the Choose Directory dialog:



4. If you want to create a new directory to hold the converted files, choose **New Directory** and type a new directory name.

Creating a new directory is often a good idea because it helps keep the converted files separate from existing files, making it easier to find them when you go to install the new fonts.

If you want to use an existing directory, “navigate” through the **Directories** list to the desired location.

5. Choose **OK**.

FontMonger does the rest. As the fonts are converted and saved you will see a progress indicator that tells you which font FontMonger is currently reading or saving — and the number of fonts left to convert in the batch.

## Supported file formats

FontMonger can convert between various font formats used on your PC. It can also convert to and from Macintosh and NeXT file formats.

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## Font formats FontMonger can read

- FontMonger document files
  - .FRF or .FRT extensions
- Windows TrueType font files
  - .TTF extension
- Macintosh TrueType font files
  - System 7 TrueType files, or suitcases containing TrueType fonts
- PC PostScript Type 1 font files from any vendor
  - .PFB extension, with optional .PFM and/or .AFM files
- CorelDraw font files
  - .WFN extension
- LaserMaster font files from LaserMaster LX6 Professional Controllers and Plain Paper Typesetters
  - .LXO extension
- Macintosh PostScript Type 1 font files from any vendor
  - downloadable font file, with optional suitcase file containing screen fonts and/or .AFM file
- NeXT PostScript Type 1 font files
  - .NXT extension, with optional .AFM file
- PostScript Type 3 font files in major formats, including those produced by FontMonger for Macintosh, FontStudio and Fontographer, as well as fonts from Bitstream, Monotype, Casady & Green, etc
  - PC: .PFA extension, with optional .PFM and/or .AFM files
  - Bitstream Fontware: .PSO extension
  - Mac: downloadable font file, with optional suitcase file
- Nimbus Q from any vendor, including URW, SoftType and SuperPrint fonts
  - .FNT extension
- Intellifont FAIS
  - .FI extension, with associated .FF files

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### **Font formats FontMonger can write**

- FontMonger document files
  - .FRF or .FRT extensions
- Windows TrueType font files
  - .TTF
- Mac TrueType font files
  - System 7 TrueType files
- PC PostScript Type 1 font files
  - .PFB, .PFM and .AFM files, plus .INF files for use with Adobe Font Foundry
- Macintosh PostScript Type 1 font files
  - downloadable font file, plus suitcase file containing screen fonts
- NeXT PostScript Type 1 font files
  - .NXT and .AFM files
- PostScript Type 3 font files
  - PC: .PFA, .PFM and .AFM files
  - Mac: downloadable font file, with suitcase file
- Nimbus Q font files
  - .FNT



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## Chapter 5. Managing Font Files

This chapter discusses the various font files that FontMonger converts from or builds.

You will find this information useful when you install or remove font files, and when you convert fonts to or from a Macintosh or NeXT computer.

### Windows TrueType fonts

When you build a Windows TrueType font, FontMonger produces a single file with extension TTF.

You install a Windows TrueType font with the Windows 3.1 Fonts control panel. Refer to your Windows documentation if you need more information about using the Fonts control panel.

To install a TrueType font, the Fonts control panel:

1. Creates an additional file, with the same name as your font file but with extension FOT. This file is used internally by Windows and is located in your Windows system directory.
2. Copies your font file into the Windows system directory, unless you uncheck that option in the font installation dialog.

If you let the control panel copy your file, then you can delete your file or move it to another directory. If no copy is made, the file is used directly by Windows, so you should not move or delete it unless you uninstall it first.

3. Makes the font available to all applications.

If you build an updated font file with FontMonger, you should use the Fonts control panel to remove the older version before installing the updated font.

To remove an installed TrueType font, the Fonts control panel:

1. Makes the font unavailable to all applications.
2. Deletes the file with extension FOT.
3. Deletes the file with extension TTF, if you check the appropriate check box.

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## PostScript Type 1 fonts

Corel  
WFNBOSS  
needs only  
PFB files to  
convert to WFN

When you build a PC PostScript Type 1 font, FontMonger produces four files, with extensions PFB, PFM, AFM and INF.

For most purposes, you need only the PFB and PFM files. However, if you intend to use Adobe Font Foundry to build fonts for DOS applications, you'll also need the AFM and INF files.

### Installing and removing fonts with ATM

When you use ATM to install a font, you need only the PFB and PFM files. ATM copies the PFB file to the PostScript fonts directory (normally `\psfonts`), and copies the PFM file to the `pfm` sub-directory.

If you need to remove an installed font, first use ATM to remove the font from its internal font list, then delete the files that ATM copied to `\psfonts` and `\psfonts\pfm`.

### Using Adobe Font Foundry

If you have ever purchased any Adobe fonts, your font package included a copy of the Adobe Font Foundry utility, which you can use to create fonts for non-Windows applications such as Word for DOS and WordPerfect for DOS.

Before starting Font Foundry, move the PFB file into `\psfonts`, move the PFM file into `\psfonts\pfm`, move the AFM file into `\psfonts\afm` and move the INF file into `\psfonts\fontinfo`. (Substitute the name of your PostScript font directory, if it has a different name.)

You may also need to rename your files. Font Foundry requires the use of Adobe's font file naming convention — the PFB, PFM, AFM and INF file names must be exactly five characters in length. Font Foundry adds three more characters to the names of the files it produces.

Also, the five-character name appears *within* the INF file. If you rename your font files, you must edit the **PCFileNamePrefix** line in the INF file so that the names match. The INF file is simply a text file, so you can edit it with a text editor like Notepad.

Consult the Adobe font installation guide for instructions on using the Font Foundry program.

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### **Other uses for PostScript fonts**

A number of other font management programs can make use of PostScript Type 1 fonts, including Bitstream Facelift and ZSoft SoftType.

Consult the documentation that came with your program for instructions on using PostScript fonts.

### **Nimbus Q Fonts**

You can use Nimbus Q font files built by FontMonger in applications like ZSoft SoftType and GeoWorks Ensemble.

#### **Installing fonts in SoftType**

Follow the instructions in your SoftType manual for installing typefaces.

#### **Installing fonts in GeoWorks Ensemble**

Follow the instructions in your GeoWorks Ensemble documentation for installing fonts.

Note that GeoWorks Ensemble converts Nimbus Q fonts to a different format when you install them. Although the converted fonts have the same name and extension, they are no longer in Nimbus Q format.

### **NeXT fonts**

FontMonger can convert PostScript Type 1 fonts to and from the format required by NeXT computers.

#### **Transferring fonts from NeXT**

On the NeXT computer, copy the outline font file onto a DOS disk. You can also copy the matching .afm file if you want to retain the font's kerning pairs.

On your PC, change the outline font file's extension to NXT before attempting to convert or open the file with FontMonger.

**NOTE:** *FontMonger will not recognize a NeXT font file unless it has extension NXT.*



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## Transferring fonts to NeXT

After you build a font in NeXT PostScript Type 1 format, copy the PFB and AFM files onto a DOS disk.

On the NeXT computer, you will need to change the extensions of the files on the DOS disk before you can install them.

Consult your NeXT documentation for information on the correct extensions to use, and on the procedure for installing the fonts.

## Macintosh fonts

FontMonger can convert and build Macintosh TrueType and PostScript fonts (in either Type 1 or Type 3 format).

### Using Apple File Exchange

If you have access to a Macintosh that has a 1.44MB floppy disk drive, the simplest way to transfer files is via Apple File Exchange and the FontMonger File Translator module supplied with FontMonger.

The FontMonger File Translator module automatically detects the various file formats that FontMonger supports, and performs an appropriate conversion — from PC to Mac format or from Mac to PC format.

The File Translator for Macintosh floppy disk in your FontMonger package contains a Read Me file that explains how to install and use Apple File Exchange translators.

**|** *NOTE: This is a Macintosh disk. You won't be able to read it on your PC without special hardware or software.*

### Other methods of transferring files

There are numerous other methods of transferring files between a Macintosh and your PC, but to use them successfully you'll need to know the formats of the files you transfer.

Text files (AFM files and NXT files) need to have line-feed characters removed when they are transferred to the Macintosh, or added when they are transferred from the Macintosh.

Macintosh resource files (suitcase files, System 7 TrueType fonts and downloadable font files) must be converted to MacBinary

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format when they are transferred to your PC, and converted from MacBinary format when they are transferred from your PC.

Many Macintosh communications programs can convert a file to or from MacBinary format during transmission, so you can often transfer files between computers by connecting them with a serial communications cable.

There are also hardware and software products available that allow you to read Macintosh disks on your PC. Before trying to use one of these products, check that it can perform the file format conversions that FontMonger needs.

You must ensure that all files that you transfer from a Macintosh to your PC must have extension MRF.

**|** *NOTE: FontMonger will not recognize a Macintosh font file unless it has extension MRF.*

### **Using Macintosh files**

For a TrueType font, transfer the System 7 TrueType file or a suitcase file containing the font.

For a PostScript Type 1 or Type 3 font, transfer the downloadable font file. If you have a matching suitcase file (containing screen fonts), you should transfer that as well, since it contains additional information about the font that is not present in the downloadable font file. The screen fonts themselves are not used by FontMonger.

If you have no suitcase file but you have an AFM file, transfer the AFM file instead.

If you have neither a suitcase nor an AFM file, then FontMonger will accept the downloadable font file by itself.

### **Building files for Macintosh**

FontMonger builds Macintosh TrueType fonts as System 7 TrueType font files, but does not produce any bitmap fonts.

For PostScript fonts, FontMonger builds three files: one MRF file that will become the downloadable font file when converted, a second MRF file that will become a suitcase file, and an AFM file.

The suitcase file for a PostScript font contains a single 13 point screen (bitmap) font.



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## Chapter 6. Keyboard Windows

When you open a font document file, FontMonger displays the font in a *keyboard window*, which appears within FontMonger's main window.

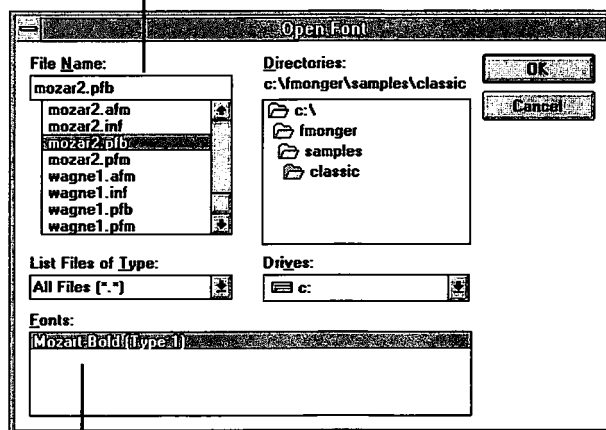
Keyboard windows can be moved, resized, minimized and maximized within the main window using the standard Windows techniques. Refer to your Windows documentation if you need more information on any of these operations.

### Opening a font

The procedure for opening a font is the same no matter whether you want to open a FontMonger document file (containing a font that you previously saved in FontMonger) or a font file (in any of the formats that FontMonger can convert):

1. Choose **Open** from the **File** menu. The Open Font dialog appears:

*Choose the file that contains the font you want to open*



*This part of the dialog is the same as the standard Windows 3.1 Open File dialog*

*If the selected file contains more than one font, select the font you want to open*

The **List Files of Type** drop-down list can help you locate files quickly. By choosing one of the items from this list, you restrict the **File Name** list to files having the corresponding extension.

2. Select a file in the **File Name** list. The **Fonts** list at the bottom of the dialog shows you the names of all fonts contained in the file.

*NOTE: FontMonger document files and most font files contain only a single font. However, a few font file formats permit several fonts per file. In that case, you indicate the font you want to open by selecting it in the **Fonts** list.*

The **Fonts** list remains empty when you select a file that is not a document or font file, or that does not contain any fonts.

3. Choose **OK**.

As a shortcut, you can simply double-click on the file or font you want to open.

Since opening a font takes a few seconds — especially if you choose a font file that needs to be converted — FontMonger displays a progress indicator while the font is being opened.

At the completion of the process, FontMonger displays a keyboard window showing you the characters in the font and the keys they are assigned to:

*If you open a FontMonger font document file, the name of the file appears in the title bar*



*If you open a font file, an untitled keyboard window is displayed*



---

## Opening multiple fonts

You can open and work with multiple fonts — simply open each of them in turn. Each font has its own keyboard window, and you can use the normal Windows operations to move, size and activate them. Any keyboard window can also be minimized to an icon within FontMonger's main window.

With multiple keyboard windows open you can cut, copy and paste characters from one font to another.

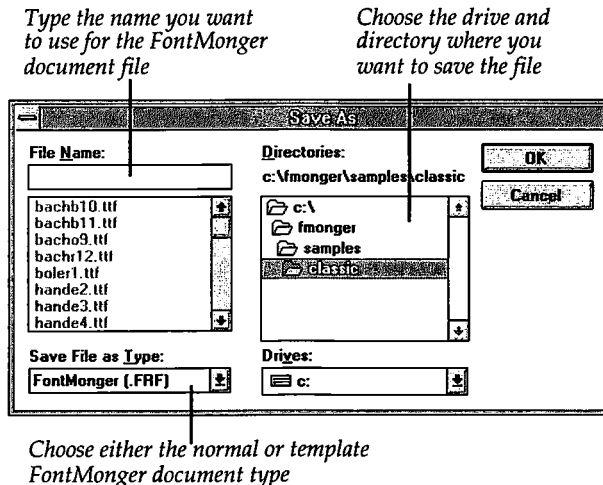
Just how many keyboard windows you can open at one time depends on how much memory your system has available.

## Saving a font

After you have finished making changes to a font, you should save it as a font document file on disk, so that you can open the font again later without having to reconvert it from a font file or make the changes again. To save a font:

1. Choose **Save** from the **File** menu.

If the keyboard window is untitled, the Save As dialog appears, allowing you to choose a name and directory location for the new FontMonger document file that will be created:



Otherwise, the font is saved in the same document file from which it was opened, replacing the previous version of the

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font. In this case, no dialog appears. If you want to preserve the old version, you can choose **Save As** from the **File** menu instead of **Save**, thus forcing FontMonger to save the font in a new document file.

2. If the **Save As** dialog appears, choose a document type from the **Save File as Type** drop-down list.

When you save a new font or use **Save As** to save a font into a new document file, you have the option of creating a normal FontMonger document file (with extension FRF) or a template file (with extension FRT).

A template file is just like a normal document file, except that when you open a template file FontMonger automatically makes a copy of the font and displays it in an untitled keyboard window. Thus, the template file is protected against inadvertent changes.

3. Choose **OK**. FontMonger displays a progress indicator while it saves the font displayed in the keyboard window.

You cannot install a FontMonger document file. Instead, you must use **Build Font** from the **File** menu to create a font file in TrueType, PostScript or Nimbus Q format. See “Building font files” later in this chapter.

## Closing keyboard windows

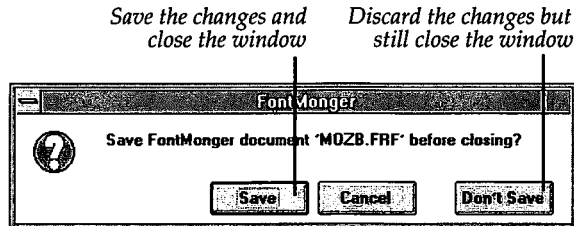
You can close a FontMonger keyboard window in several ways. The method you choose is a matter of personal preference:

- Double-click on the system menu icon in the top left corner of the keyboard window.
- Pull down the keyboard window’s system menu with the mouse or by typing **Alt+hyphen**, then choose **Close**.
- Type **Ctrl+F4**.
- Choose **Close** from FontMonger’s **File** menu.
- Type **Ctrl+W**.

In the last three cases, if there is more than one window open, FontMonger closes the active window.

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Before FontMonger closes a keyboard window, it checks whether you have made any changes to the font displayed in the window. If you have, FontMonger asks you whether you want to save or discard the changes:



## Reverting to the saved version of a font

Changes you make to a font document are kept in memory or in a temporary file until you save the font — the previous version of the font is untouched.

If you make changes that you do not want to keep, you can return to the previous version of the font by choosing **Revert to Saved** from the **File** menu.

After confirming that you want to revert, FontMonger will reread the previous version of the font, discarding any changes you have made since the font was last saved.

## Keyboard layout

A keyboard window is an on-screen representation of the keyboard attached to your computer.

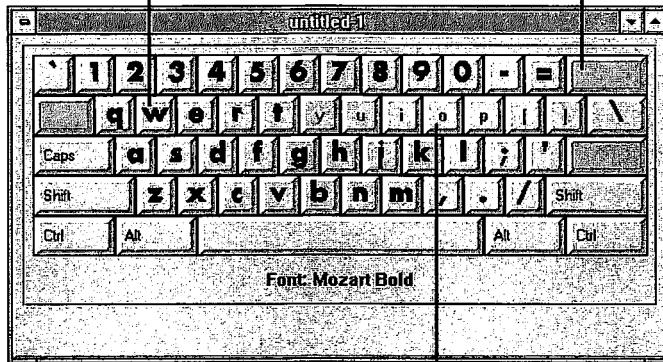
Since FontMonger cannot detect the exact size, shape and position of the keys on your keyboard, the keyboard window layout may differ slightly from your keyboard.



However, FontMonger *can* determine which character is produced when you press each key on your keyboard. The keyboard window shows you these characters on the appropriate keycaps.

*Keycaps show the character in the font that is associated with each key*

*Keys that can never have an associated character are shown completely gray*



*If the font has no character for a key, the keycap shows a grayed character from the System font instead*

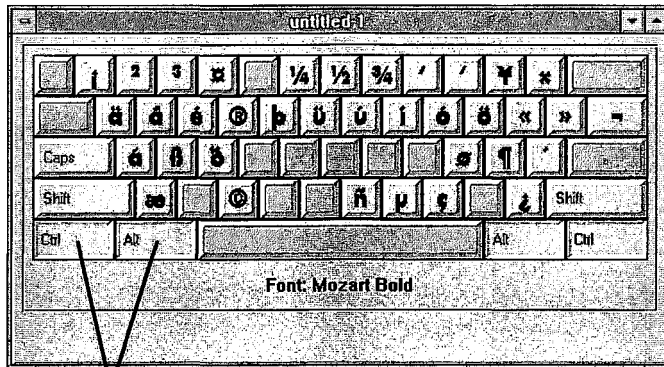
## Modifier keys

Clearly, there are many more characters in a font than there are character keys on your keyboard. To access the rest of the characters, you have to hold down the **Shift**, **Ctrl** or **Alt** key (or some combination of them) while you press a character key. These three keys are called *modifier* keys.

If you click on one of the keycaps labeled *Shift*, *Ctrl* or *Alt* in the keyboard window, FontMonger changes the display to show you the characters your keyboard produces when you hold down that modifier key.

**NOTE:** FontMonger also recognizes Caps Lock as a modifier key, because it is possible — with a few unusual keyboard layouts — for the Caps Lock key to produce characters that cannot be typed with Shift, Ctrl and Alt.

You can click on more than one modifier to see the effect of holding down a combination of modifier keys.



*The Ctrl and Alt keycaps are highlighted, indicating that the keyboard window is displaying the characters you get when you type with the Ctrl and Alt keys held down*

Click on the modifiers a second time to return them to their previous state.

On most keyboards, only a few combinations of modifier keys are actually useful. For Windows, a typical keyboard arrangement is:

no modifiers	lowercase letters, numbers and punctuation
Shift	uppercase letters and special characters
Ctrl+Alt	special characters and lowercase accented letters
Shift+Ctrl+Alt	special characters and uppercase accented letters

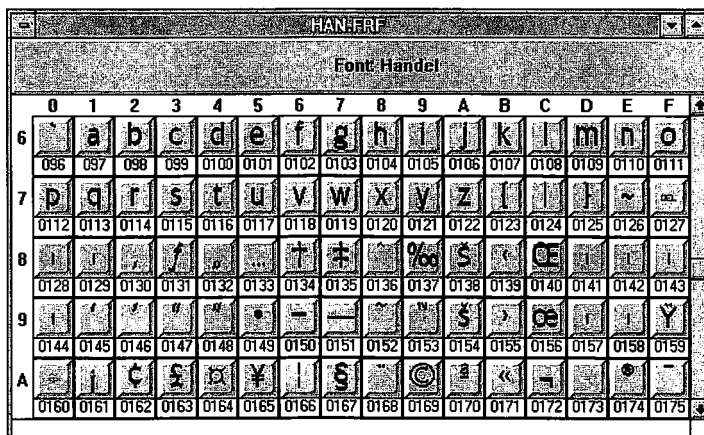
## Display options for keyboard windows

Under Windows 3.1, a font may have up to 256 characters (although most fonts have only around 200 characters).

Depending on the keyboard configuration you have chosen, not all of these characters may be accessible from the keyboard.

In the normal keyboard layout view, FontMonger allows you to work only with characters that are accessible from the keyboard, since there's no way to show whether non-keyboardable characters are selected.

If you need to work with the entire character set, you can choose **Character Chart** from the **Options** menu to get a complete view of the font:



The character chart is a grid of character positions, made up of 16 rows and 16 columns. The first 10 rows and columns are labeled 0–9, while the last six are labeled A–F.

At each grid position, FontMonger shows you a character from the font, or a grayed character if there is nothing assigned to that position.

### Character numbers

In any application, Windows allows you to enter characters that are not directly keyboardable by typing a number on the numeric keypad while the **Alt** key is held down.

In the character chart view of a keyboard window, FontMonger shows you these numbers just below their corresponding character positions.

### Using the character chart view

Although the character chart is a different view of the font, you use it in exactly the same way as a keyboard layout view:

- Click or drag to select characters with your mouse.
- Type keys on your (real) keyboard to select the corresponding keycaps in the window. Note that you can also select keycaps by typing **Alt**+numeric keypad combinations.

- Use cut, copy and paste to rearrange the font.

Any function you can perform in the keyboard layout view can also be performed in the character chart view.

Choose **Character Chart** from the **Options** menu again to return to the normal view.

## Selecting characters

Within a keyboard window, you choose the characters you want to work with by selecting their keycaps.

The exact appearance of keycaps depends on what kind of screen you are using, but generally selected keycaps show a light-colored character on a darker background, while unselected keycaps show a dark-colored character on a light background:



*Unselected keycap*



*Selected keycap*

If you have a color screen that does not show enough contrast between the light and dark colors, you can choose **Black and White** from the **Window** menu to force FontMonger to draw the keycaps in black and white only.

### Selecting by clicking with the mouse

You can select a single character in a keyboard window by simply clicking on it with the mouse.

Hold down the **Ctrl** or **Shift** key (on your real keyboard) while clicking to retain any previous selection. If you do not hold down one of these keys, selecting an unselected keycap deselects all others.

### Selecting by dragging with the mouse

You can select multiple characters by dragging over them with your mouse. All characters that the mouse pointer passes over while the mouse button is pressed will be selected.

Hold down the **Ctrl** or **Shift** key while dragging to retain a previous selection in addition to the characters you drag over.

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## Selecting characters by typing

You can also type characters on your keyboard to select them in the keyboard window. While typing, hold down the **Shift**, **Ctrl** or **Alt** keys as necessary to get the characters you want.

Unlike selection by clicking, typing a character does not deselect previously selected characters. If you want to deselect the previous selection, press **Esc** before typing the character.

Typing the same character a second time deselects it.

## Selecting all characters

To select all characters accessible from the keyboard, choose **Select All** from the **Edit** menu.

## Selecting character ranges

As well as **Select All**, the **Edit** menu contains items that select several useful ranges of characters:

**Select 0-9** selects only number keys.

**Select a-z** selects only unaccented lowercase letters.

**Select A-Z** selects only unaccented uppercase letters.

To select one of these character ranges, simply choose it from the menu.

As usual, you can use the **Ctrl** or **Shift** key to retain any previously selected characters — hold down **Ctrl** or **Shift** while choosing from the menu.

For example, if you wanted to select all uppercase and lowercase letters you would:

1. Choose **Select a-z** from the **Edit** menu to select lowercase letters.
2. Press and hold the **Ctrl** key.
3. With your mouse, choose **Also Select A-Z** from the **Edit** menu.

Note that the menu item has changed from **Select A-Z** to **Also Select A-Z**.

4. Release the **Ctrl** key. Both ranges are now selected.

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*NOTE: You can also define your own selection ranges and have them appear on the **Edit** menu. See “Customizing Selection Ranges” later in this chapter.*

## **Deselecting characters**

### **Deselecting all selected characters**

You can deselect all selected characters in a keyboard window by:

- clicking in any background area of the keyboard window, away from any keycap, or
- pressing **Esc**.

### **Deselecting a single character**

You can deselect a single character by holding down the **Ctrl** or **Shift** key while you click on the appropriate keycap.

Or, you can type a selected character from your real keyboard to deselect it.

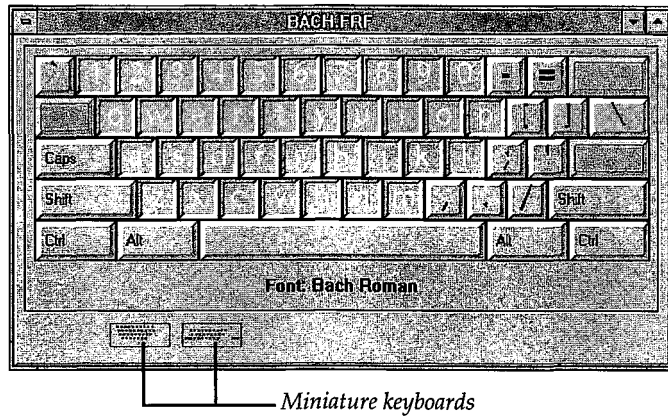
### **Deselecting multiple characters**

You can deselect multiple characters by holding down the **Ctrl** or **Shift** key while dragging over the characters you want to deselect, starting from a selected character.

## **Miniature keyboards**

You can only see the keycaps for one combination of modifier keys (**Shift**, **Ctrl**, **Alt** or **Caps Lock**) at one time, but you can select characters from different combinations. For example, you can select A-Z (Shift modifier) as well as a-z (no modifier).

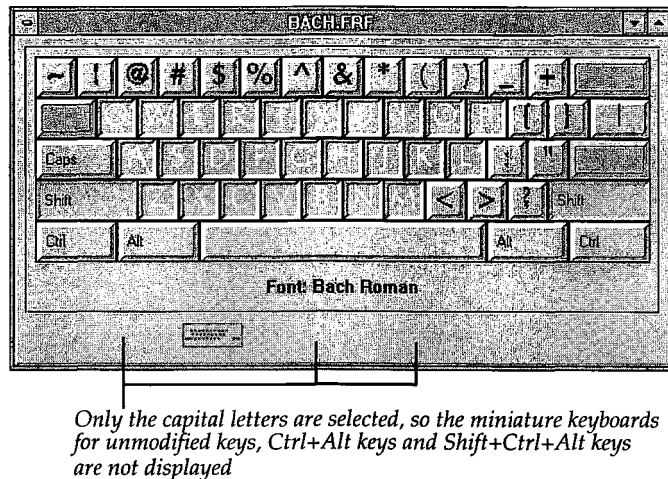
FontMonger makes the entire selection visible by displaying miniature keyboards at the bottom of the keyboard window:



There is room for four miniature keyboards, one each for the following modifier combinations:

no modifiers   Shift   Ctrl+Alt   Shift+Ctrl+Alt

Each of these four miniature keyboards appears in a fixed position, but if there are no selected keycaps for a modifier combination, the miniature keyboard is not displayed:

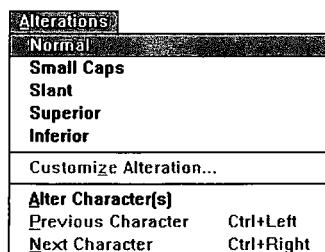


Thus, the miniature keyboards give you a quick visual reminder of which characters will be affected by cut, paste or delete operations, or by alterations applied from the **Alterations** menu.

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## Using FontMonger's built-in alterations

Built into FontMonger are four commonly used alterations. These alterations are included in the **Alterations** menu along with a **Normal** item that removes alterations and returns characters to their unaltered state:



To apply any of these alterations, select the characters you want to alter and choose the alteration from the **Alterations** menu.

Each time you apply a built-in alteration, it completely replaces any previous alterations that have been made to the selected characters. This means, for example, that you cannot make slanted small caps using the built-in alterations — you can apply the **Small Caps** alteration or the **Slant** alteration, but not both simultaneously.

If you need the equivalent effect of applying two built-in or custom alterations, you must create a custom alteration using the Alter Character window that combines them into one custom alteration. See Chapter 7 for an explanation of creating custom alterations.

## Customizing fonts

The ways you can use FontMonger to customize fonts include:

- Rearranging characters by moving them to new keyboard positions.
- Adding new characters to a keyboard. The new characters come from the font's own character set, from other fonts, or from imported graphics.
- Removing characters from your keyboard.
- Creating new character outlines within FontMonger.



## Rearranging characters with Cut, Copy and Paste

If you want to move characters to new key positions, FontMonger allows you to do so easily using **Cut**, **Copy** and **Paste** from the **Edit** menu:

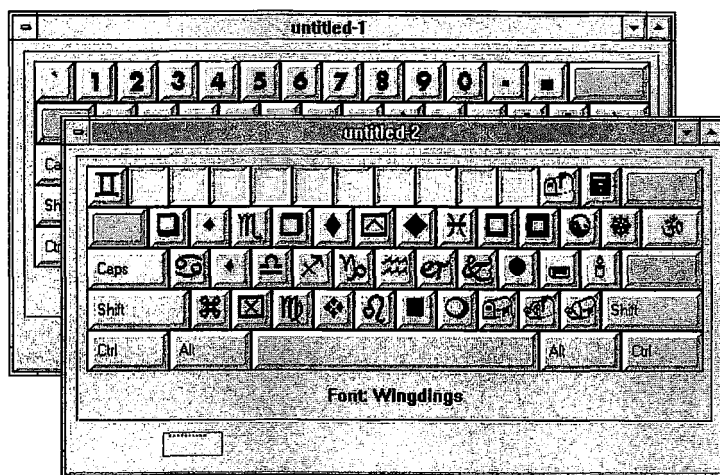
- **Cut** copies the selected characters onto the clipboard, then removes them permanently from the font.
- **Copy** places the selected characters onto the clipboard, without changing the font.
- **Paste** replaces the characters on selected keycaps with the characters on the clipboard.

## Combining fonts with Cut, Copy and Paste

You can also customize fonts by combining parts of other fonts. These fonts are sometimes called *merged fonts*.

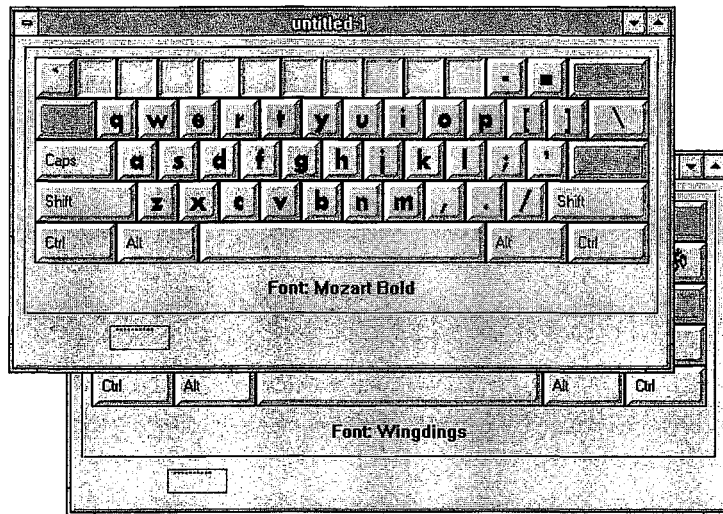
To copy characters from one font to another:

1. Open both the “source” font and the “destination” font, so that both keyboard windows are open simultaneously.
2. Select the characters you want to copy from the source font.



3. Choose **Copy** from the **Edit** menu.
4. Activate the keyboard window of the destination font, making sure that there are no selected keycaps in the window.

5. Choose **Paste** from the **Edit** menu. The characters are copied to the same key positions in the destination font that they occupied in the source font.



To copy the characters to different key positions, select the desired keycaps in the destination font before you paste the characters into it.

### **Deleting characters from a font**

Choosing **Delete** from the **Edit** menu or pressing **Delete** on your keyboard permanently removes the selected characters from a font.

### **Removing characters from the keyboard**

If you want to remove selected characters from their keyboard positions, without removing them permanently from the font, choose **Remove Character(s)** from the **Edit** menu.

Characters removed in this way still exist within the font, and can be reassigned to new keyboard positions, if necessary, with the **Choose Character** dialog.

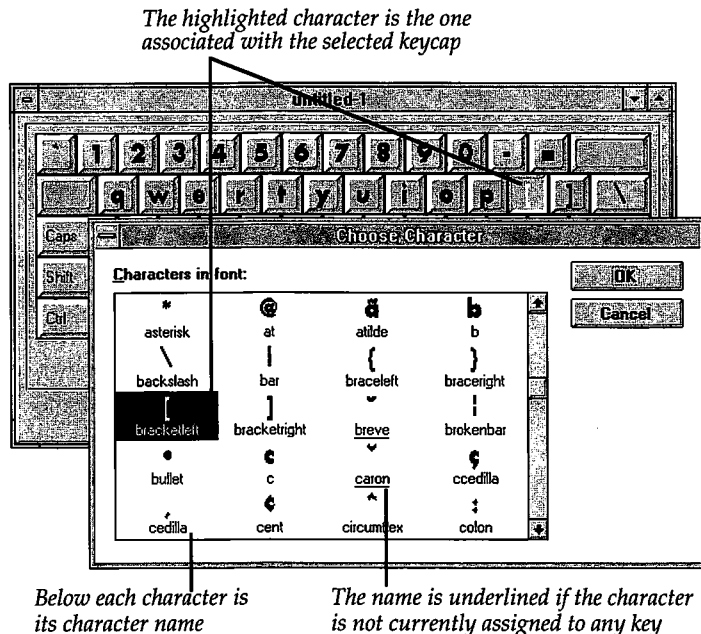
### **Assigning characters with Choose Character**

Fonts usually contain many more symbols than appear on your keyboard — typeface designers often create many related symbols that are unassigned in your font. You can assign these extra

characters to unused keyboard positions, or replace existing keyboard assignments.

To assign a character in your font to a keyboard position:

1. Select the keycap to which you want the character assigned.
2. Choose **Choose Character** from the **Edit** menu. The Choose Character dialog appears:



3. Select a new character from the character list. The characters are listed in alphabetical order by their names.
4. Choose **OK**.

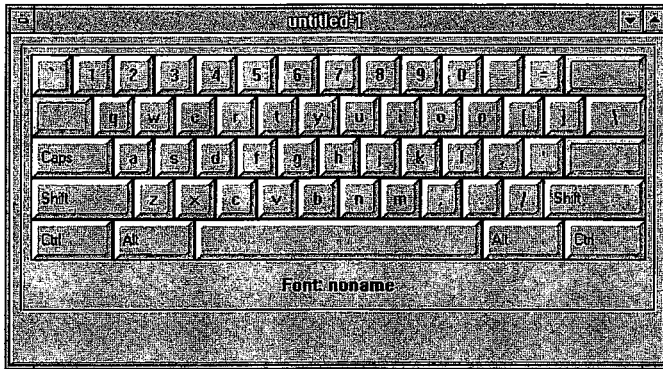
Or, simply double-click on the newly chosen character in the character list.

FontMonger assigns the chosen character to the selected key and displays it on the keycap.

## Creating a new font

Sometimes you might want to create a completely new font rather than modifying an existing one. For instance, you might want to create a font that contains just your company logo.

To create a new font, choose **New** from the **File** menu. An untitled keyboard window appears:



The font initially contains no characters, so the keycaps all show grayed characters.

You can add characters to a new font by pasting them from another font, or by importing graphics files.

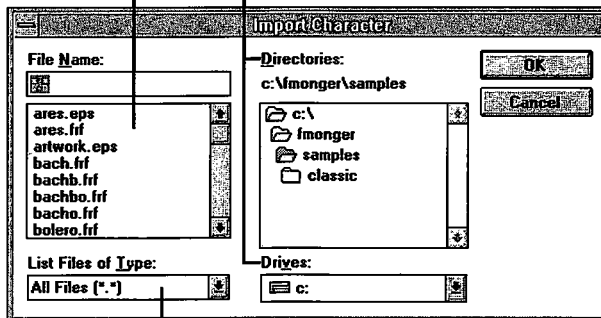
## Importing graphics

Importing graphics into FontMonger is a straightforward process:

1. In a keyboard window, select the key to which you want to assign the imported graphic.
2. Choose **Import Character** from the **File** menu. The Import dialog appears:

*Select the file you want to import*

*Choose the drive and directory that contains the file*



*Limit the files listed by choosing a type*

- 
3. Select the name of the file containing the graphic and choose **OK**.

You should exercise some caution when importing complex graphics into a font. If you install a font with extremely complex characters, the font may not display or print correctly.

*NOTE: FontMonger attempts to detect graphics that are likely to be too complex and warns you of this fact. If you wish, you may ignore the warning, but you should test your font thoroughly to make sure it works on both your screen and your printer.*

### **Graphics formats that FontMonger can import**

The graphic formats which can be imported into FontMonger are:

- Files produced by Adobe Illustrator (Windows or Macintosh). CorelDraw, Micrografx Designer and Arts & Letters can also produce files in Adobe Illustrator format.
- Encapsulated PostScript files from applications such as Adobe Illustrator, Micrografx Designer, Aldus FreeHand or CorelDraw.

Due to the wide variety of application-specific EPS formats, not all EPS files can be imported by FontMonger. If you have files produced by an application not listed above, you will need to experiment to find out if they can be imported.

### **Preparing artwork for importing**

When drawing artwork for use in a font, you need to be aware of the unique limitations that apply to character outlines:

- Avoid over-complexity.

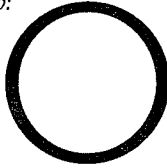
Font-rendering software — the software that draws characters on your screen (such as Windows 3.1 for TrueType fonts) or prints them on your printer (such as a PostScript language interpreter) — has built-in limitations on the complexity of any individual character.

- Don't use strokes and fills.

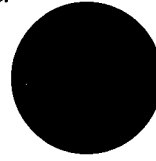
Colors, line thicknesses and fill patterns are all inappropriate for characters. All that matters is the shape of the outlines you draw.

---

*If you draw:*



*You'll get this:*



Font rendering software does not use explicit strokes and fills. Instead, it simply fills the interior of every shape with black.

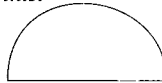
- Use only closed shapes.

An outline is closed if its end joins to its beginning. Characters with unconnected ends will not display or print properly.

*To get:*



*Draw this:*



*Not this:*

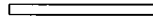


- If you want to draw what looks like a line — a long dash, for example — you must actually draw a long, narrow rectangle.

*To get:*



*Draw this:*



*Not this:*



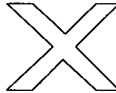
- Don't let outlines cross themselves or each other.

Characters like *X* that give the impression of being made up of two crossing strokes are actually made up of *four* shorter strokes, spliced at the center of the character.

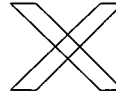
*To get:*



*Draw this:*



*Not this:*



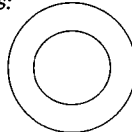
- If you want a hole inside a character, like the center of an *O*, draw two shapes — the shape of the character and the shape of the hole — and put one inside the other.

When one shape encloses another, font-rendering software fills only the area between the shapes.

*To get:*



*Draw this:*



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## Setting font information

As well as descriptions of the characters it contains, a font has additional information that describes the font as a whole.

### Font families

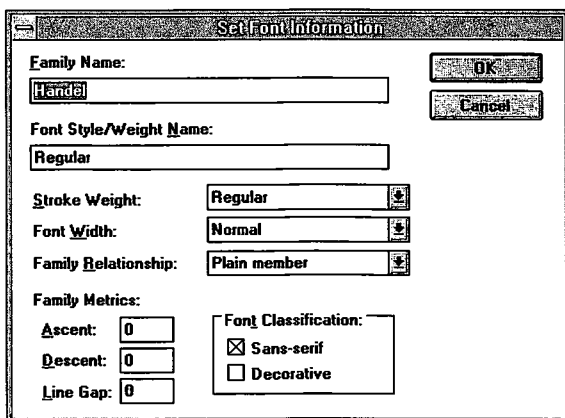
Often, related fonts are grouped into *font families*. Usually, all fonts in a family have the same basic design, with only a limited range of well-established variations.

The most common kind of font family contains four fonts (often called *faces* in this context):

- Regular (also called *plain* or *normal* or *roman*)
- Bold (thicker character strokes)
- Italic (slanted, cursive character forms)
- Bold Italic (combination of the bold and italic styles)

Fonts in the same family all share the same basic family name (such as Times). They are distinguished by different *style names* (also called *weight names* or *subfamily names*).

You can view or change these names for a font in FontMonger by choosing **Set Font Information** from the **Options** menu to display the Set Font Information dialog:



Family and style names usually consist of one or more words, with the first letter of each word capitalized. Words may be separated by spaces or hyphens. (You will also encounter many fonts where the words aren't separated from each other at all.)

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## Stylistic variations

There are three main stylistic variations that account for the differences between members of a font family:

- **Italics.** In many families, italic faces are almost a separate design. However, since the italic faces are designed especially to match the upright faces, they are treated as part of the family.

- **Stroke weight.** The upright strokes of characters may vary in thickness. Fonts with thinner strokes than normal are called *light*, while fonts with thicker strokes are called *bold*.

Many gradations of thickness are commonly used. The **Stroke Weight** drop-down list in the Set Font Information dialog allows you to specify the most common ones.

- **Font width.** The overall proportions of the characters in a font can be stretched or squeezed horizontally. These variations are called *expanded* (or *extended*) and *compressed* (or *condensed*), respectively.

Again, many gradations are possible, and the **Font Width** drop-down list in the Set Font Information dialog provides a choice of the most popular ones.

**NOTE:** You do not change a font's appearance by choosing different entries from either of these drop-down lists. Your choices are simply for information, and may be used by Windows or other font-management software to determine the intended characteristics of the font.

## Family relationship

Certain members of a font family have a privileged status:

- The *plain* font is the one you get if you simply select some text in an application and choose the family name from the application's font list.

Usually, the plain font is the one whose stroke weight is regular and whose font width is normal.

- The *bold*, *italic* and *bold italic* members are the ones that you get if you use an application that allows you to apply bold and italic formatting without explicitly changing fonts.



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You should always make an appropriate choice from the **Family Relationship** drop-down list in the Set Font Information dialog. If your font is the only member of its family, or if it is the central family member, choose **Plain member** from the list.

If the font is a bold, italic or bold italic family member, choose the corresponding list entry.

Otherwise choose **Other family member** from the list.

### **Family metrics**

The **Ascent**, **Descent** and **Line Gap** text boxes determine the vertical spacing of a font when it is used for multi-line text.

If you set all three values to zero, FontMonger determines the spacing automatically, based on the heights of the characters within your font.

If you want to ensure that all members of a font family produce the same vertical spacing, regardless of any small variations in character heights among different family members, you must specify the *same* ascent, descent and line gap values for each family member.

The *ascent* is the amount of vertical space allocated for the font above the baseline on which most characters sit. Generally, you would use the height of the capital letters or the tall lowercase letters such as *b*, *d* or *k*. (The top portions of such lowercase letters are called *ascenders*.)

The *descent* is the amount of vertical space allocated for the font below the character baseline. Generally, this is the depth of lowercase letters like *p*, *q* and *y*. (The bottom portions of these letters are called *descenders*.)

The *line gap* is an additional clearance that is added between lines of text.

All three values are specified in  $\frac{1}{1000}$ ths of the font's point size. A typical font ascent would be approximately 660, and a typical descent would be approximately 250. The line gap is often zero or a small number like 100.

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## Font classification

The two **Font Classification** check boxes are used to inform Windows of further basic information about your font.

If your font has no serifs (short cross-strokes at the ends of the main strokes), check the **Sans-serif** check box.

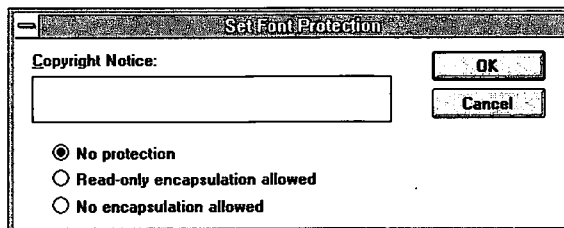
If your font consists mainly of non-alphabetic symbols, such as music notation, map symbols or mathematical symbols, check the **Decorative** check box.

## Setting font protection

Fonts may contain information designed to protect the rights of the font designer.

FontMonger allows you to view this information, and — in the case of fonts that you created — to change it.

Choose **Set Font Protection** from the **Options** menu to display the Set Font Protection dialog:



The **Copyright Notice** text box contains the copyright text that was embedded in a font you converted. All commercial fonts have a copyright notice to identify the font's owner.

The encapsulation options currently apply to Windows TrueType fonts only, and control whether the font may be embedded in a document you transfer to another computer.

Choose **No protection** to allow unlimited distribution of the font.

Choose **Read-only encapsulation allowed** if the font may be embedded into a document and used to view the document on another computer. The font may not be used on that other computer for any purpose except viewing the document.

Choose **No encapsulation allowed** if the font may not be embedded in documents. This is the highest level of protection.

## Building font files

Any time you create a new FontMonger document file, or change an existing font document, you must build a font file if you want to install the new or revised font in your system.

The font file you build is in the format that your system needs — such as TrueType for Windows 3.1, PostScript Type 1 for ATM, and Nimbus Q for SoftType or GeoWorks.

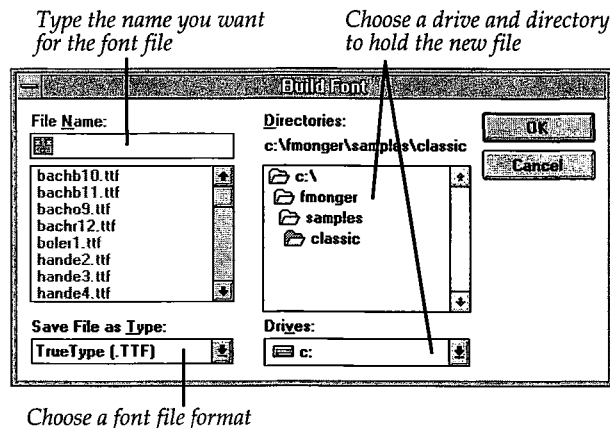
You can also build font files for Macintosh or NeXT systems.

To build a font file:

1. Open a keyboard window for the font, if necessary.

A convenient time to build the font file is right after you save the FontMonger document file.

2. Choose **Build Font** from the **File** menu. The Build Font dialog appears:



**NOTE:** If the Set Font Information dialog appears instead of the Build Font dialog, your font does not have a name. Fill in the appropriate font information, including a name in the **Family Name** text box, then click OK. The Build Font dialog will then appear. See “Setting font information” earlier in this chapter for an explanation of the Set Font Information dialog.

- 
3. Enter a name for the font file, and choose a directory location to place the file into.

Don't enter an extension as part of the file name, since FontMonger supplies the correct extension automatically.

4. Choose the font format from the **Save File as Type** drop-down list.
5. Choose **OK**. FontMonger then builds the font file.

Some font formats require more than one file to describe the font. FontMonger builds any necessary auxiliary files after building the main file. The auxiliary files have the same name as the main file, but a different extension.

Once the font file and its auxiliary files are built, the font is ready for installation. Refer to Chapter 5 for information on installing font files of various formats.

## Printing a font layout

FontMonger allows you to print the contents of a font as a keyboard layout chart that you can use as a reference guide.

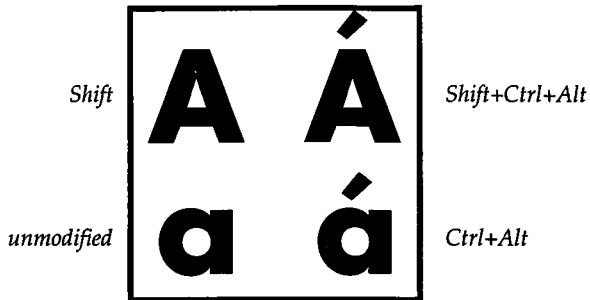
To print a font layout:

1. Make sure the keyboard window shows the keyboard layout view. If the character chart view is displayed, choose **Keyboard Layout** from the **Options** menu.
2. Choose **Print Setup** from the **File** menu, and set the printing parameters that you want.

On standard 8½ by 11 inch paper, you'll make better use of the paper if you choose landscape orientation — and you'll also get a larger chart.

3. Choose **Print** from the **File** menu, then choose **OK**.

FontMonger prints keyboard layouts in two parts. The first part is a representation of the keyboard, with each key containing up to four characters arranged like this:



Below the keyboard layout is a list of all the other characters in the font that can be accessed from the keyboard, along with the combination of keys you need to press to get each character. If necessary, this list continues onto a second page.

### Printing a character chart

If the keyboard window is showing the character chart view when you choose **Print**, FontMonger prints the character chart instead of a keyboard layout.

## Exporting graphics

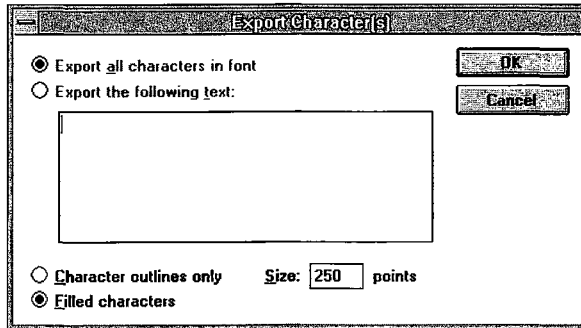
FontMonger can export characters from any font as graphic images in Adobe Illustrator, EPS or Windows Metafile formats.

Files containing exported characters can then be opened by graphics programs and used as design elements.

If you wish, you can export characters from a font, edit them in a graphics program, then import them back into the font. However, it is usually easier to edit the characters within FontMonger itself, using FontMonger's built-in drawing tools as described in Chapter 8.

To export one or more characters from a font:

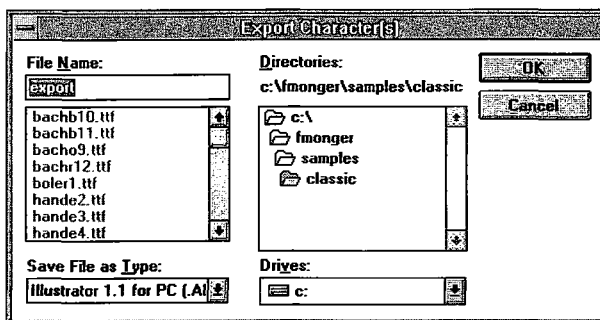
1. Open a keyboard window for the font containing the characters to be exported.
2. Choose **Export Character(s)** from the **File** menu. The Export Character(s) dialog appears:



3. Enter the characters to be exported in the text box and choose the **Export the following text** option. Or, choose **Export all characters in font** if you want to export the entire font.

**NOTE:** *The characters you choose are all exported in a single graphics file. If you want one character per file, you must export each character individually.*

4. Choose **Character outlines only** or **Filled characters**, depending on the way you want the characters to appear in the graphics file.
5. Enter a size for the characters. The default value of 250 points is recommended, because if you make the characters too small or too large, you will find them hard to work with in a graphics program.
6. Choose **OK**. A second dialog appears:



7. Enter a name for the graphics file and choose a directory location.

8. Choose an appropriate file format from the **Save File as Type** drop-down list. You may choose Encapsulated PostScript, Adobe Illustrator 1.1 or Windows Metafile formats.
9. Choose **OK** to export the characters.

## Creating custom selection ranges

If you find you need to select the same range of characters over and over again in the keyboard window, you can automate the process by defining your own selection ranges and adding them to the **Edit** menu. You can also assign a keyboard shortcut to any selection range.

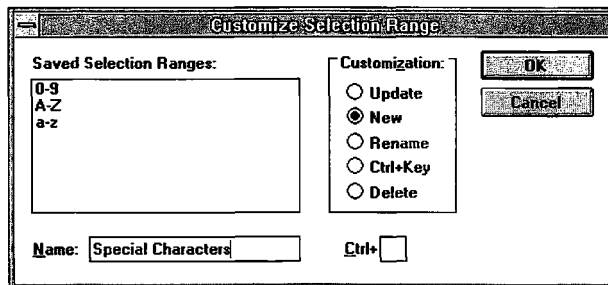
To create a new selection range:

1. In any keyboard window, select the characters you want to include in your custom selection range, using any of the selection techniques discussed earlier.
2. Choose **Customize Range** from the **Edit** menu. The Customize Selection Range dialog appears.
3. Enter an identifying name for the selection range you're creating in the **Name** text box.
4. Choose **OK**.

The selection range now appears on the **Edit** menu, and can be used to select characters in any keyboard window.

### The Customize Selection Range dialog

The Customize Selection Range dialog also allows you to redefine or rename existing selection ranges, delete selection ranges from the **Edit** menu and assign keyboard shortcuts to specific selection ranges.



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### **To redefine an existing selection range**

1. In any keyboard window, select the characters you want to include in the new selection range definition.
2. Choose **Customize Range** from the **Edit** menu. The Customize Selection Range dialog appears.
4. In the **Saved Selection Ranges** list box, select the name of the selection range you want to redefine. The **Update** option button becomes selected automatically.
5. Choose **OK**.

### **To delete a selection range**

1. In any keyboard window, choose **Customize Range** from the **Edit** menu.
2. In the **Saved Selection Ranges** list box, select the name of the selection range you want to delete.
3. Choose the **Delete** option button.  
You can perform steps 2 and 3 in any order.
4. Choose **OK**.

### **To rename a selection range**

1. In any keyboard window, choose **Customize Range** from the **Edit** menu.
2. In the **Saved Selection Ranges** list box, select the name of the selection range you want to rename.
3. Choose the **Rename** option button.  
You can perform steps 2 and 3 in any order.
4. Enter a new name for the selection range in the **Name** text box and choose **OK**.

### **To assign a keyboard shortcut to a selection range**

You can assign a keyboard shortcut, consisting of the **Ctrl** key in combination with any of the number keys 0-9, to any selection range.

You can make the assignment while defining a new selection range, or while renaming an existing one.





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## Chapter 7. Alter Character Windows

Although a keyboard window is useful for making changes to many characters at one time, you often need to focus on a specific character to make more detailed changes.

The Alter Character window allows you to make the following kinds of changes to one character at a time:

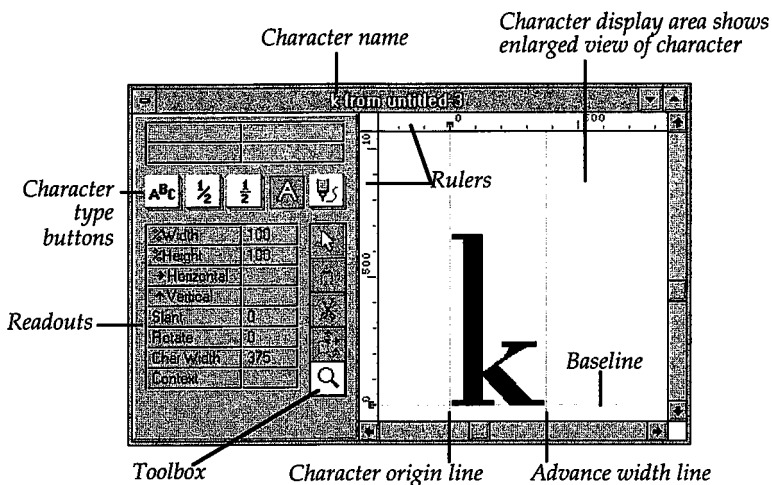
- You can scale, move, slant or rotate entire characters.
- You can construct fractions and composite characters — characters which are made up of other characters.
- You can edit the outlines which make up the characters. Editing of character outlines is discussed in Chapter 8.

### Opening an Alter Character window

To open an Alter Character window, start from the keyboard window and:

- select a character and choose **Alter Character(s)** from the **Alterations** menu, or
- select a character and press **Enter**, or
- double-click on a character.

The Alter Character window looks like this:



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**NOTE:** You can only open one Alter Character window per font at one time.

### Character type buttons

The first four of the five buttons indicate the type of character shown in the window:



- The Composite Character button indicates a character which is made up of other characters, known as its *components*.



- The Diagonal Fraction button indicates a fraction with a diagonal separator bar between its top and bottom parts. Fractions are special kinds of composite characters.



- The Horizontal Fraction button indicates a fraction that has a horizontal separator bar.



- The Normal Character button indicates a non-composite character.



The fifth button is the Outline Editing button. You click on it to begin editing character outlines, as explained in Chapter 8.

Fractions and composite characters are discussed later in this chapter.

### Character display area

The main part of the Alter Character window displays an enlarged view of the character being altered. This area of the window is known as the *character display area*.

As well as the character itself, the display area has:

- Rulers that show you the character size and placement. Unlike any ruler you're used to, FontMonger's rulers do not measure distances in real-world units like inches or centimeters. Instead, the rulers measure distances in  $\frac{1}{1000}$ ths of a font's point size.
- Construction lines which let you align your characters properly.

The horizontal line extending from the zero point on the side ruler is the character *baseline*. It is the position at which the bottoms of most characters align. (Exceptions include letters with curved bottoms, such as 'o' and 'c', which generally

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extend slightly below the baseline, and letters like ‘p’ and ‘g’, which extend a long way below the baseline.)

The two vertical lines represent the character origin and advance width. The distance between these two lines is the amount of space that is allocated to the character when it is used in a line of text. (Wide letters, such as ‘m’ or ‘w’, need a larger space than narrow letters like ‘i’ or ‘j’, to prevent adjacent letters from overlapping.)

There are also two extra guide lines — one horizontal and one vertical — which you can position anywhere on the display area. See “Using guide lines” later in this chapter.

### Tools

Of the five tools in the Alter Character window toolbox, only two are used for making the alterations described in this chapter.



- The arrow tool is used to scale, reposition, slant and rotate the character in the display area.



- The magnifier tool is used to zoom in or out.

The other three tools are only available when you are editing outlines.

### Readouts

The readouts text boxes show the amount of scaling, repositioning, slanting or rotation that has been applied to the character in the display area.

In addition, you can type values directly into the readouts, to alter the character numerically.

## Altering a character

### Applying built-in alterations

You can apply any of the built-in alterations from the **Alterations** menu to the character in the Alter Character window. After applying a menu alteration, you can fine-tune the alteration by any of the other methods described in this section.

Choose **Normal** from the **Alterations** menu to remove all alterations from the character.

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## Using the arrow tool

Since the arrow tool is normally the active tool in the Alter Character window, you usually don't have to do anything to activate it. If another tool is active, simply click on the arrow tool icon to activate it.

You can also activate the arrow tool temporarily by holding down the **Ctrl** key.

The simplest alteration you can make with the arrow tool is repositioning the character. Simply drag the character in the display area to the position you want.

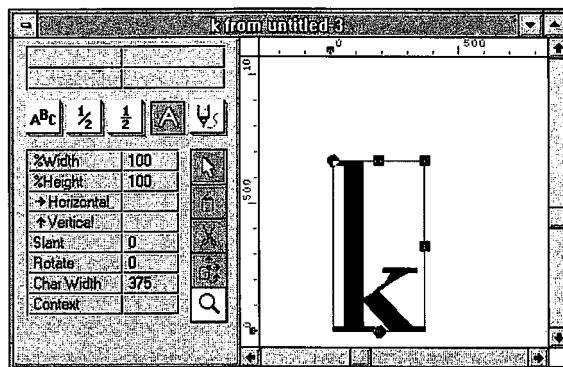
As you drag, the **Horizontal** and **Vertical** text boxes in the readouts panel show you how far the character has moved from its original position.

Note that as you move the character horizontally, FontMonger automatically adjusts the advance width so that the character keeps approximately the same amount of space on its left and right sides.

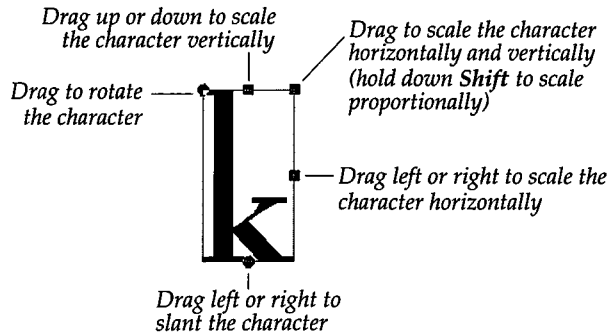
To scale, slant or rotate a character:

1. Click on the character in the display area.

The character's bounding box — a rectangle that encloses the character — appears. On the sides and corners of the bounding box are five "handles" that you can drag:



2. Drag one of the handles.



As you drag:

- the **%Width** and **%Height** readouts text boxes show the percentage by which the character has been scaled.
  - The **Slant** readouts text box shows you the amount of the slant, in degrees.
  - The **Rotate** readouts text box shows you the amount of the rotation, in degrees.
3. When you've finished dragging, you can make the bounding box disappear by clicking in any empty part of the display area.

### Typing alteration values

The readouts text boxes give you a way of scaling, repositioning, slanting or rotating a character to specific numerical values:

1. Click on the text box that contains the value you want to change. The text box becomes active and its contents are selected.

%Width	100
%Height	100
→Horizontal	
↑Vertical	
Slant	0
Rotate	0
Char Width	360
Context	

Active text box

Press **Tab** to activate next text box in top-to-bottom sequence

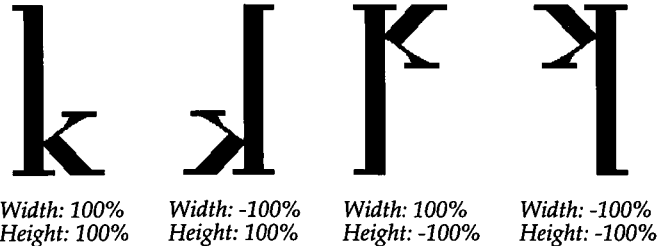
Press **Shift+Tab** to activate previous text box

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2. Enter the desired value.

- For the **%Width** and **%Height** text boxes, the values are percentages, so the value 100 is “normal.”

You can type a minus sign in front of the percentages to “flip” the character. A negative width flips the character horizontally, and a negative height flips the character vertically:

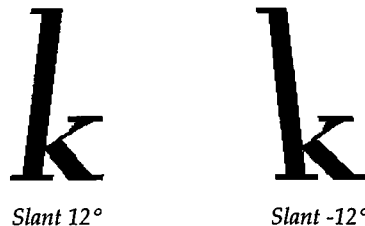


The largest percentage you can enter is 1000% (to enlarge the character by a factor of 10)

- For the **Horizontal** and **Vertical** move text boxes, the values are  $\frac{1}{1000}$ ths of the point size.

Values greater than zero move the character up and to the right. Values less than zero move the character down and to the left.

- For the **Slant** text box, the value is in degrees. Values greater than zero slant the character to the right, while values less than zero slant to the left.



The value you enter can be from -45 degrees to 45 degrees.

- For the **Rotate** text box, the value is also in degrees. Values greater than zero rotate the character counterclockwise, and values less than zero rotate clockwise.



*Rotate 90°*



*Rotate -90°*

The value can be between -360 degrees and 360 degrees.

After a short pause, the character display is updated to reflect the value you entered.

3. If the alteration is not what you want, change the value in the text box. You can experiment with different values until you get the effect you want.
4. Press **Enter** to deactivate the text field.

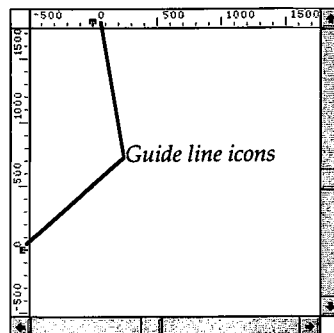
## Using guide lines

FontMonger provides you with two guide lines — one horizontal and one vertical — which you can use to align characters in the display area.

Initially, the guide lines are positioned at the zero points of the rulers, so they are superimposed on the baseline and character origin construction lines.

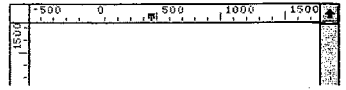
To reposition the guide lines:

1. Move the mouse pointer over the guide line icon on the top or side ruler. The pointer changes to a cross when you are over either icon.





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2. Drag the icon along the ruler to a new position.



While you drag, the numerical position of the guide line is shown in the **Horizontal** or **Vertical** readouts text box.

When you drag a character with the arrow tool, the edges of the character “snap” to the guide line positions as you approach them. The guide lines are highlighted while the character is close enough for snapping to occur.

Snapping makes it easy for you to align characters to specific locations in the display area. This is especially useful when you need to align the components of a composite character.

Snapping is enabled whenever the **Snap To Guide Lines** menu item has a check mark beside it. If you don’t want the character to snap to the guide lines when you drag, choose **Snap To Guide Lines** from the **Options** menu to remove the check mark.

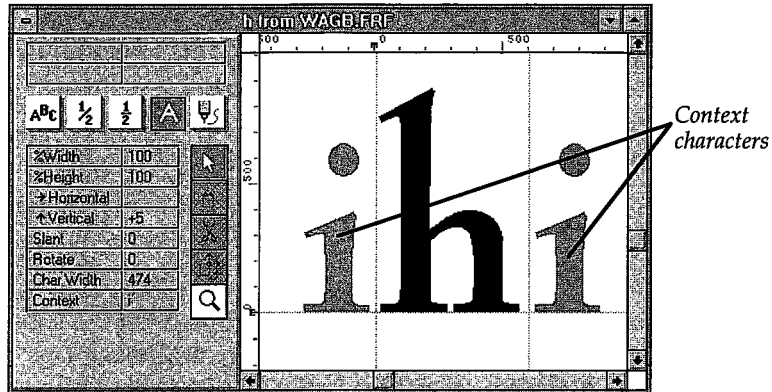
## Context characters

You may often want to see what a character looks like beside another character, or to alter a character in relation to other characters of the font. For example, you might want to scale a character so that it matches the height of another character.

It is convenient to display the character to be altered in context — that is, beside another character you need to compare it to.

FontMonger lets you do this by typing one or more characters in the **Context** text box. These characters are called *context characters*.

Context characters are displayed both before and after the character in the display area:



**NOTE:** Since the display area is limited in size, there usually isn't room to show more than one or two context characters.

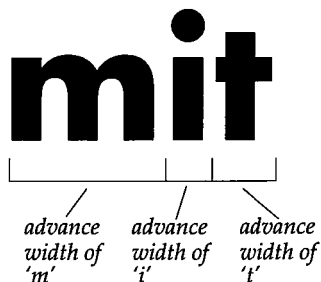
You activate the **Context** text box in the same way as a numeric readouts text box — by clicking on it or tabbing to it — and you deactivate it by pressing **Enter**.

When you no longer need the context characters, just delete the contents of the **Context** text box.

## Adjusting the character advance width

A character's advance width is so named because of the way computers place characters in a line of text that is displayed on your screen or printed on your printer.

After placing the first character, the software constructing the line "advances" a certain distance along the line before placing the next character. This process of advancing is repeated character by character along the line.



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In spite of the simplicity of this process, advance widths must be carefully designed for a font (along with the shapes of the characters themselves) so that the tiny gaps that separate characters appear well balanced to the reader. Irregularities in the spacing can make a line of text difficult to read.

As you apply alterations to a character, you may need to adjust the advance width so that the correct spacing is maintained.

One way to check a character's spacing is to view it between context characters. If the character overlaps the context characters, or if there is a large gap between it and the context characters, you may need to adjust the advance width.

There are two ways to change the advance width:

- Activate the **Char Width** text box (by clicking on it or tabbing to it), and type a new value for the width. This value is in  $\frac{1}{1000}$ ths of the point size, and may not be less than zero.
- With the arrow tool, drag on the context character displayed to the right of the character in the display area.

*NOTE: Repositioning the character and scaling the character make compensating changes to the advance width. Generally, if you plan to change a character's advance width, you should first finalize all other alterations to the character.*

## Undo and Redo

Undo allows you to reverse the changes you've most recently made to a character in the Alter Character window.

FontMonger remembers the last eight changes you made, and undoes them in order as you choose **Undo** from the **Edit** menu. The text of the menu item changes to show you the kind of change being undone.

**Redo** from the **Edit** menu allows you to reapply changes that you've undone.

FontMonger keeps track of the changes in each Alter Character window separately. If you have Alter Character windows open for more than one font, you can undo up to eight changes in each window.

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## Saving altered characters

The changes you make in an Alter Character window have no effect on the rest of the font until you take one of the following specific actions:

- You close the Alter Character window.
- You save the entire font by choosing **Save** or **Save As** from the **File** menu.
- You switch to a different character in the Alter Character window. (See “Altering multiple characters” later in this chapter.)

When you take one of these actions, the altered character replaces the original character on the appropriate keycap.

*NOTE: None of the alterations described in this chapter affect any characters other than the one you apply them to in the Alter Character window. For example, if you alter the ‘a’ character, any accented ‘a’ characters in the font are unchanged.*

*Contrast this with outline editing, where a change to the outlines of letter ‘a’ would also change any composite accent character that uses ‘a’ as a component.*

## Controlling the display

FontMonger provides you with several ways of controlling the way the Alter Character window display area appears.

### Resizing the display

If the display area is too small, you can make it bigger by simply resizing the Alter Character window. Be aware, though, that a large display area requires a lot of memory, especially if you have a color or gray-scale screen.

If you make the display area very large, you will find boundaries beyond which the area is gray. You should ensure that your characters stay within the white part of the display area.

*NOTE: Characters that extend into the gray area may not appear correctly when you install your font, since the software that*

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*displays or prints characters has built-in limitations on the size and complexity of a single character.*

### Using the magnifier tool

You can zoom in or out on the character in the display area — that is, increase or decrease the scale at which the character is displayed — by using the magnifier tool. The magnifier can also “toggle” between the last two display scales you used.



The magnifier is activated by clicking on the tool’s icon in the toolbox. You can also activate the magnifier tool temporarily by holding down one of the following keys:

**Space**  
**F2**  
**F3**

#### To zoom in

1. Activate the magnifier tool by clicking on its icon in the toolbox.

Or, press and hold the **Space** key.

Or, press and hold the **F2** key.



The mouse pointer changes to a magnifying glass with a plus sign in its center. If there’s no plus sign, the display area is already at its maximum scale, and cannot be magnified any further.

2. Click on the display area.

Or, drag to mark a rectangle on the display area.

If you click, the display area is magnified one step, and the place you clicked on stays in the same place in the window.

If you drag, the area you marked is magnified to fill the display area.

#### To zoom out

1. Activate the magnifier tool by clicking on its icon in the toolbox, then press and hold the **F5** key.

Or, press and hold the **Space** and **F5** keys simultaneously.

Or, press and hold the **F3** key.



The mouse pointer changes to a magnifying glass with a minus sign in its center. If there's no minus sign, the display area is already at its minimum scale, and cannot be reduced any further.

2. Click on the display area.

The display area is reduced in scale by one step, and the point you clicked on stays in the same place in the window.

### To toggle the scale

FontMonger remembers the last two magnifications of the display. You can quickly switch ("toggle") between these two magnifications:

1. Activate the magnifier tool by clicking on its icon in the toolbox, then press and hold the **Shift** key.

Or, press and hold the **Space** and **Shift** keys simultaneously.

Or, press and hold the **F2** and **Shift** keys simultaneously.



The mouse pointer changes to a double magnifying glass.

2. Click anywhere on the display area.

The display area changes to the previously remembered magnification.

**NOTE:** You can press **F6** instead of the **Shift** key in step 1. Depending on the arrangement of keys on your keyboard, **F6** may be easier to reach than the **Shift** key for some combinations.

### Scrolling the display area

You can scroll the contents of the display area using the vertical and horizontal scroll bars at the left and bottom of the display area.

Another way to scroll the window is to use the grabber tool:

1. Press and hold the **F4** key to activate the grabber tool.



The mouse pointer changes to a hand.

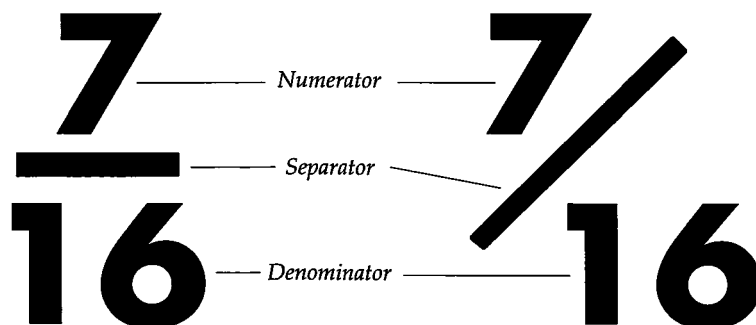
2. Drag the display area in any direction. The place on the display that you "grabbed" follows the mouse pointer while you drag.

---

## Creating fractions

FontMonger provides you with an automated way of creating two kinds of fractions — “diagonal” fractions and “horizontal” fractions.

A fraction is made up of three parts:



When creating fractions in an Alter Character window, you need only enter the numerator and denominator. FontMonger supplies the appropriate separator automatically. It also sizes and positions the parts of the fraction.

### How to create a diagonal fraction

Before creating a diagonal fraction you must decide which key on the keyboard you want the fraction to be associated with.

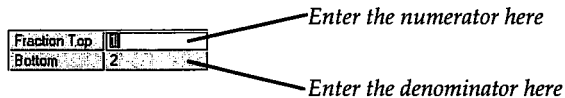
If the font has unused key positions (shown in the keyboard window as keycaps with a gray character on them), you can use one of them for the fraction. Otherwise, you will have to reuse one of the keys that has a character assigned.

To create the fraction:

1. Open an Alter Character window for the character position you chose.
2. Click on the **Diagonal Fraction** button. The **Fraction Top** and **Bottom** text boxes appear above the button in the window.

The text boxes are pre-filled with the values 1 and 2, so the display area shows you the fraction 1/2.





3. Enter the numerator in the **Fraction Top** text box.
4. Activate the **Fraction Bottom** text box by clicking on it or tabbing to it, then enter the denominator of the fraction you want.

*NOTE: If you want to use a separator character other than the one FontMonger automatically chooses, there is a procedure for changing it. See "Editing fractions and composite characters" below.*

### How to create a horizontal fraction



The procedure for creating a horizontal fraction is identical to the procedure for creating a diagonal fraction, except that you must click on the Horizontal Fraction button instead of the Diagonal Fraction button.

### Changing between fraction types

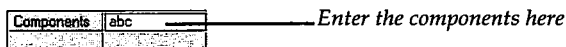
After you've constructed a fraction, you can change it from a diagonal fraction to a horizontal fraction and vice versa by simply clicking on the appropriate fraction button.

### Creating composite characters

Composite characters are similar to fractions in that they are made up of several parts, or *components*. The difference is that you decide how many components to use, and how to position the components.

To create a composite character:

1. Choose a key to use for the composite character, and open an Alter Character window.
2. Click on the Composite Character button. The **Components** text box appears above the button.



3. Type the characters you want to use as components. The characters you enter are shown in the display area in the order in which you entered them.



---

**NOTE:** You can also use characters in the font that can't be accessed from the keyboard. See "Entering special characters into a text box" for the procedure to follow.

At this point you've created a composite character which is composed of all the components you entered into the **Components** text box.

It's likely that you still need to alter — by scaling, repositioning, slanting or rotation — the components of the character you've created. The following section explains how you can do this.

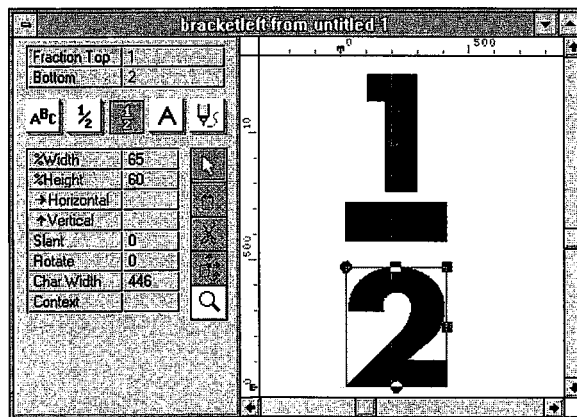
### Editing fractions and composite characters

Even though you create them differently, fractions and composite characters are all single characters made up of separate components.

Fractions and composite characters can be altered in the same ways as a normal character — by scaling, moving, slanting or rotating the entire character. However, FontMonger also allows you to make the same kinds of alterations to individual components or combinations of components without affecting other components.

To alter one component of a composite character or fraction:

1. Double-click on the character to break it apart into separate components. Each component is now shown with its own bounding box.



---

The component that has the handles is called the *current component*.

For a composite character, the number of components is the same as the number of characters you entered in the **Composite** text box. For a fraction, there are always three components: the numerator, the denominator and the separator.

2. Now make the alterations you want.
  - To reposition any component, simply drag it.
  - To scale, slant or rotate any component, first click on it to make it the current component (if necessary), then drag any of the handles.
  - Enter values in the readouts text boxes to make alterations numerically. Note that the values in the readouts reflect the alterations that have been applied to the current component.
3. To re-join the components into a single unit, simply click anywhere in the display area outside of the component bounding boxes.

You can also alter multiple components simultaneously:

1. Double-click on the character to break it apart.
2. Click on the first component you want to alter so that it becomes selected.
3. Hold down the **Shift** key and click on each of the other components you want to alter. The bounding box of each component becomes highlighted as you select it.

If necessary, you can Shift-click on an already-selected component to deselect it.

Notice that only the last selected component has handles. The values shown in the readouts reflect the alterations applied to this current component.

4. To see the readout values or handles for a component that has already been selected, simply click on the component. The selected components remain selected, but the one you clicked on becomes the current component.

- 
5. Make the desired alterations by dragging or typing in the readouts.

### Changing composites to normal characters

If you decide you don't want a fraction or composite after all, you can change back to a normal character by clicking on the Normal Character button. The original character (if there was one) is restored unchanged.

### Changing fractions to composites

When you construct a fraction whose numerator or denominator contains more than one digit (e.g.  $15\frac{1}{16}$ ), FontMonger does not let you alter the digits separately (to move the 1 closer to the 5, for example).

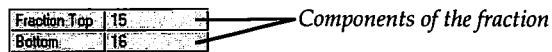
If you need this level of fine control, click on the Composite Character button to convert the fraction to a composite character. You can then reposition or otherwise alter each character of the composite separately.

### Changing the separator in a fraction

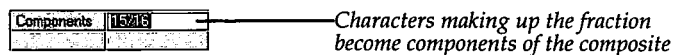
FontMonger normally chooses an appropriate character to use as a fraction separator. In special circumstances, though, you may wish to use a different character as the separator.

To change the separator character:

1. Create either a diagonal or horizontal fraction, letting FontMonger choose the separator character.



2. Click on the Composite Character button to turn the fraction into a composite. The characters making up the fraction numerator, separator and denominator appear in order in the **Composite** text box.



3. Replace the separator in the text box by deleting it and typing the character you want to use.
4. Click on the Diagonal or Horizontal Fraction button again to turn the composite back into a fraction.

---

**NOTE:** Don't change any of the other components while the composite button is highlighted, or FontMonger may lose track of which character is the separator.

## Entering special characters into a text box

Although you can type any characters into the **Components**, **Fraction Top** or **Fraction Bottom** text boxes, you may also want to use a character that is not accessible from the keyboard.

For example, if you want to create an accented *i*, you should not make a composite consisting of a regular *i* plus an accent, because the dot on the *i* will interfere with the accent.

Instead, you should create a composite consisting of a dotless *i* character plus an accent. Most fonts have a dotless *i*, but the character can't be accessed from the keyboard.

You can enter such characters by using the Choose Character dialog:

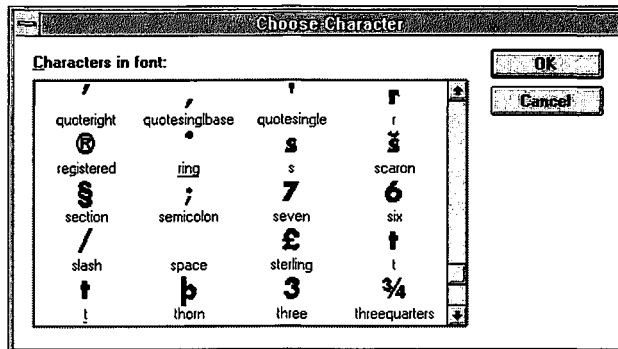
1. In an active text box, position the flashing insertion point at the place where you want to insert the non-keyboardable character.



Insertion point indicates the place where the special character will be inserted

Or, select the characters you want to replace with the non-keyboardable character.

2. Choose **Choose Character** from the **Edit** menu. The Choose Character dialog appears:



- 
3. Scroll through the character list until you find the character you want to insert.
  4. Select the character and choose **OK**, or just double-click on the character.

Special characters that you enter into a text box this way are displayed as small hollow boxes.



Box indicates non-keyboardable character

### Changing the text box font

When you type in the **Components**, **Fraction Top** or **Fraction Bottom** text boxes, the characters within the text box are shown in a special font that is built into FontMonger.

This special font is similar to the system font provided with the U.S. version of Windows, except that it can represent almost all of the 256 characters in the Windows ANSI character set.

If you have a non-U.S. Windows system, or are using a special system font, you may wish to have the characters in text boxes appear in your own system font.

You can do this by choosing **Use System Font** from the **Options** menu while an Alter Character window is active.

## Altering multiple characters

FontMonger allows you to alter multiple characters without closing the Alter Character window and opening a new one for each character. To do so, you employ one of the following techniques to change the character displayed in the window:

### Switch characters by typing

With an Alter Character window open, and no readouts text box active, you can switch to a different character by typing it on your keyboard.

When the new character appears, alterations you made to the old character are not lost, but take effect in the font as if you closed the window.

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## Previous and next characters

You can switch to the previous or the next character in the font by choosing **Previous Character** or **Next Character** from the **Alterations** menu. The keyboard shortcuts for these menu items are **Ctrl+left arrow** and **Ctrl+right arrow**, respectively.

The meaning of “next” and “previous” depends on what is selected in the keyboard window.

- If multiple characters are selected in the keyboard window, **Previous Character** and **Next Character** switch to the previous or next selected character, in the order of the selection.
- If only a single character is selected in the keyboard window, or if no characters are selected, **Previous Character** and **Next Character** switch to the previous or next character in the font, in alphabetical order by character name.

The character name is shown in the title bar of an Alter Character window.

In the second case (with no characters or one character selected), **Previous Character** and **Next Character** step through all characters in the font, regardless of whether they are currently assigned to keyboard positions or not.

## Creating and using custom alterations

The built-in alterations on the **Alterations** menu can be applied both to ranges of characters in the keyboard window, or to single characters in the Alter Character window.

FontMonger does not restrict you to the built-in alterations, though. You can create your own custom alterations, which appear on the **Alterations** menu along with the built-in ones.

### To create a new custom alteration

1. Alter one character using any of the procedures explained earlier in this chapter — but don’t close the Alter Character window when you’re done.
2. Choose **Customize Alteration** from the **Alterations** menu. The Customize Alteration dialog appears.

3. Type the name you want to assign to your custom alteration in the **Name** text box.
4. Choose **OK**. The name of your custom alteration will then appear in the **Alterations** menu.

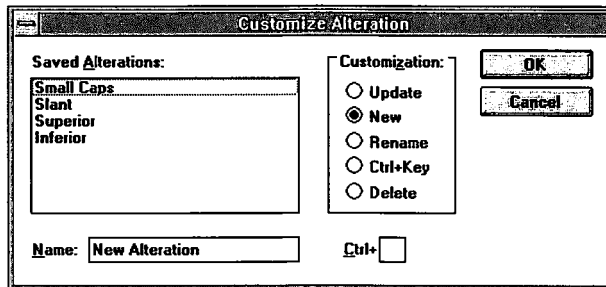
You can apply a custom alteration in the keyboard window or the Alter Character window just like the built-in alterations.

**NOTE:** *You can't save outline editing changes as part of a custom alteration.*

### The Customize Alteration dialog

The Customize Alteration dialog allows you to create new alterations, change the effects of both built-in alterations and alterations you previously created, rename alterations, delete custom alterations and assign keyboard shortcuts to specific alterations.

The Customize Alteration dialog looks like this:



### To update an existing alteration

1. In an Alter Character window, choose the alteration's name from the Alterations menu.

This step is not absolutely necessary, but helps ensure that you don't accidentally change some part of the alteration that you want to retain.

2. Revise any parts of the alteration that you want to change, by any of the usual techniques for making alterations.
3. Choose **Customize Alteration** from the **Alterations** menu. The Customize Alteration dialog appears.

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4. In the **Saved Alterations** list box, select the name of the alteration you want to update. The **Update** option button is automatically selected.
  5. Choose **OK**.

You can update built-in alterations as well as custom alterations you created.

#### **To delete a custom alteration**

1. In an Alter Character window, choose **Customize Alteration** from the **Alterations** menu.
2. In the **Saved Alterations** list box, select the name of the alteration you want to delete. You cannot delete a built-in alteration.
3. Choose the **Delete** option button.

You can perform steps 2 and 3 in any order.

4. Choose **OK**.

#### **To reset a built-in alteration**

Although you cannot delete any of the built-in alterations, you can reset them to their original default values:

1. In an Alter Character window, choose **Customize Alteration** from the **Alterations** menu.
2. In the **Saved Alterations** list box, select the name of the built-in alteration you want to reset. The **Delete** option button changes to **Reset**.
3. Choose the **Reset** option button.
4. Choose **OK**.

#### **To rename an alteration**

1. In an Alter Character window, choose **Customize Alteration** from the **Alterations** menu.
2. In the **Saved Alterations** list box, select the name of the alteration you want to rename. This can be a built-in alteration or a custom alteration.



- 
3. Choose the **Rename** option button.

You can perform steps 2 and 3 in any order.

4. Enter a new name for the alteration in the **Name** text box.
5. Choose **OK**.

### **To assign a keyboard shortcut to an alteration**

You can assign a keyboard shortcut, consisting of the **Ctrl** key in combination with any of the number keys 0-9, to any alteration — built-in alterations as well as custom alterations.

You can make the assignment while creating a new alteration or renaming an existing one, or:

1. In an **Alter Character** window, choose **Customize Alteration** from the **Alterations** menu.
2. In the **Saved Alterations** list box, select the name of the alteration you want to assign a shortcut to.
3. Choose the **Ctrl+Key** option button.

You can perform steps 2 and 3 in any order.

4. Type a number 0-9 in the **Ctrl+Key** text box.
5. Choose **OK**.

**NOTE:** *Your custom alterations are kept in the FontMonger preferences file, named FMONGER.PRF in the same directory as FMONGER.EXE. If you delete this file, all your custom alterations will be lost, and all the built-in alterations will be set back to their original default values.*

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## Chapter 8. Editing Outlines

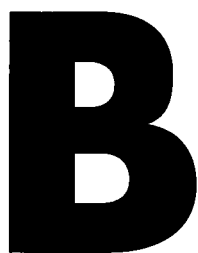
FontMonger provides you with a full set of character drawing tools that you can use to edit existing characters or draw new characters.

Before you use the drawing tools, you should be familiar with the Alter Character window. In particular, you need to be able to carry out the following procedures, which are described in Chapter 7:

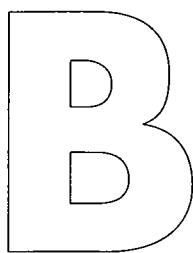
- Open and close an Alter Character window, and switch characters within an open Alter Character window.
- Resize the character display area, and zoom in or out.
- Scroll the character display area with the scroll bars or the grabber tool.
- Use horizontal and vertical guidelines.
- Enter values in the readouts text boxes.

### Characters and outlines

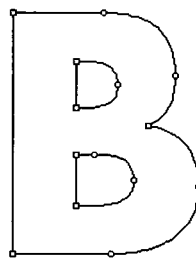
You are used to seeing characters as solid, black-filled shapes. When you want to edit the character shapes, you must look below the black-filled surface to the underlying building blocks of characters.



*Character as printed  
or displayed*



*Underlying outline*



*Outline as shown  
in FontMonger*

Characters are designed, drawn and edited in a skeletal form called an *outline*. An outline represents the character's edges.

When a character from a scalable font is displayed on the screen (by Windows 3.1 or Adobe Type Manager, for example) or printed

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(by the software inside your printer), the interior portions of the character's outlines are filled with black. Everything else is left unfilled, allowing the color of the screen or paper — normally white — to show through.

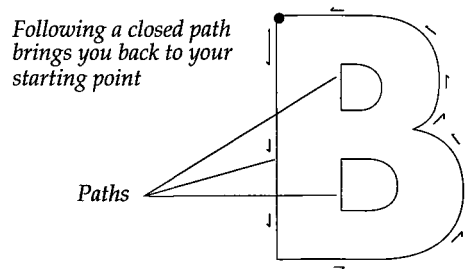
As you edit a character outline, it is your responsibility to ensure that the correct portions of the shape are fully enclosed, so that the character is filled properly when displayed or printed.

Normally, FontMonger displays all characters (in a font's keyboard window or in the alter character window) filled in the same way they'll appear when you use the font.

When you begin outline editing, FontMonger displays characters differently. Character edges are displayed as lines, and the interior of the outline is left unfilled.

### Paths

Each character outline is made up of separate lines called *paths*. If you trace along the paths of some existing character outlines, you will see that each path is a closed loop — if you start anywhere on the path and follow it around, you'll eventually get back to where you started.



Also, you will see that no path crosses over itself, and no path crosses any other path.

These two observations — paths must be closed, and paths may not cross — are actually rules you must follow when drawing character outlines. If you violate the rules, the character may not display or print correctly.

**NOTE:** These rules apply to completed characters. You may often break the rules as an intermediate step in editing character outlines. A path that does not form a closed loop is said to be "open."

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The simplest characters, such as “L” and “T,” consist of a single path. Characters with holes in them such as “O” or characters having multiple pieces such as “i” or “%” are composed of two or more paths.

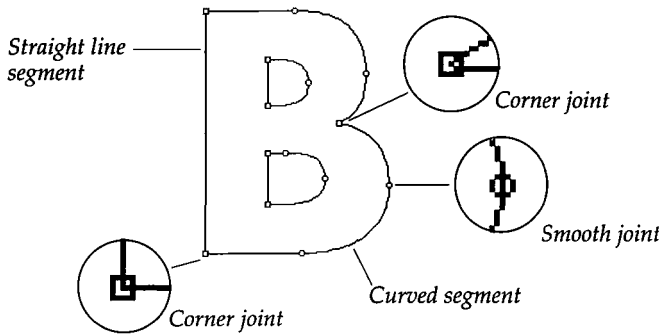
### Segments and join points

In FontMonger, paths are made up of a series of straight and curved segments that are connected together end to end. The points where segments connect are called *join points*, or simply *joints*.

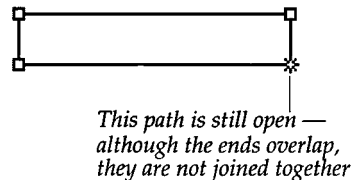
- A *corner joint* occurs where two segments join.
- A *smooth joint* occurs where one segment blends smoothly into the next one.

Smooth joints can occur between two curved segments or between a straight line and a curve. Two straight line segments can only be joined by a corner joint.

In the Alter Character window, join points are shown as small squares or circles:



If you have an open path in the character display area, the ends of the path are marked with a special “starburst” shape so that they are easily recognizable.



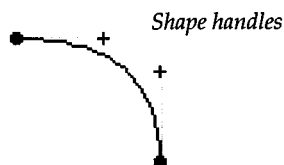
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You should get into the habit of carefully examining any character outlines you draw for unwanted starbursts. An open path may seem to be closed if the path begins at the same place it ends, but it's not truly closed if it contains a starburst.

### Shape handles

Join points define where each segment begins and ends. For straight line segments, that's all there is to know, but for curved segments you also need to be able to control the curvature, so that you can get deeper or shallower curves.

Each curved segment has two *shape handles*, which define how much the segment curves and in what direction.



Each join point of a curved segment has its own shape handle. The distance of the shape handle from the joint determines how sharply the segment curves out from the joint, and the direction of the shape handle from the joint determines the direction in which the curve travels.

## Beginning and ending outline editing

To begin editing a character outline:

1. Open an Alter Character window for the character you want to edit.
2. Click on the Outline Editing button, which is the rightmost of the five horizontal buttons in the window. The character in the display area becomes a hollow outline, and all of the tools in the toolbox are enabled.

You can only edit the outlines of a normal character. If you try to begin outline editing of a composite character or fraction, FontMonger asks you if you want to convert the character to a normal character.

---

You do not have to end outline editing explicitly in order to have your changes take effect. Changes to outlines take effect under the same circumstances as character alterations:

- When you close the Alter Character window.
- When you save the font.
- When you switch to another character in the window.

However, if you wish, you can end outline editing by clicking on the Normal Character button.

Keep in mind that when you edit a character's outline, you are editing the underlying structure of the character. For this reason, any alterations such as scaling, moving, slanting and rotation you've applied to the character as a whole are suspended while outline editing is in progress. The alterations are not lost, though: their effects are simply not visible while the Outline Editing button is highlighted.

Another consequence of editing the underlying structure is that the changes you make affect not only the character in the Alter Character window, but also all composite characters which use that character as a component.

For example, if you edit the outline of *a*, corresponding changes will occur in the accented composite letters *á, â, ã*, etc.

## Drawing a new character

If you want to draw a brand new outline in place of an existing character's outline, you must first remove the original outline:

1. Choose **Select All** from the **Edit** menu to select all the segments in the outline.
2. Choose **Delete** from the **Edit** menu, or press the **Delete** key to delete all the segments.

## Selecting segments

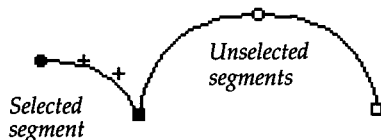
The purpose of having paths divided up into segments is so that you can modify parts of an outline without changing other parts.

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To modify part of an outline, you select the segment (or segments) that make up that part of the outline, and carry out some operation on the selection.

### **How selections are displayed**

Normally, the squares and circles that mark the join points of an outline are hollow. When a segment is selected, the join points at each end of the segment become filled in.



If a selected segment is a curve, its shape handles also appear as crosses just off the curve.

### **Using the arrow tool for selection**

You usually use the arrow tool to select segments:

1. To activate the arrow tool, click on its icon in the toolbox.  
Or, hold down the **Ctrl** key to activate the arrow tool. The arrow tool remains active as long as you hold the key down. When you release the key, the previous tool is re-activated.
2. Click on a segment to select it, or double-click on a segment to select the entire path.

If you click on a joint between two segments, both segments are selected.

### **Using a selection rectangle**

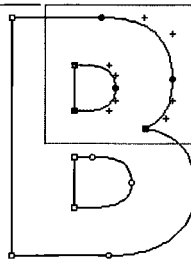
You can select multiple segments in one operation by dragging out a selection rectangle.

1. Activate the arrow tool, as described above.
2. Start dragging from some unoccupied part of the display area, away from any segments or shape handles.

One corner of an enclosing rectangle stays at the place you started dragging. The opposite corner follows the position of the mouse pointer.

3. Drag out the rectangle so that it encloses the segments you want to select.

*Start dragging at a convenient place in the drawing area*



*Drag out a rectangle enclosing the segments you want to select*

4. Release the mouse button when the correct segments are enclosed.

**NOTE:** To select all the segments of the character, choose **Select All** from the **Edit** menu. To deselect all the segments, just click with the arrow tool anywhere in the display area away from the outline.

### Modifying the selection

You can add to or subtract from the current selection by holding down the **Shift** key while making a selection.

- Shift-click on an unselected segment to add it to the current selection.
- Shift-click on a selected segment to deselect it.

You can add or subtract whole paths from the current selection by holding down the **Shift** key while double-clicking on a segment. If the segment was unselected, the entire path becomes selected. If the segment was selected, the entire path becomes deselected.

### Using Cut, Copy, Paste and Delete

Selected segments can be cut, copied, pasted and deleted, using **Cut**, **Copy**, **Paste** and **Delete** from the **Edit** menu or their keyboard shortcuts. Segments you cut or copy from one character may be pasted into the same character, a different character in the same font or a character in another font.

- When you **Cut** the selected segments, they are removed from the character and placed onto the clipboard.



- 
- **Delete** also removes the selected segments from the character, but doesn't place them on the clipboard.
  - **Copy** places a copy of the selected segments onto the clipboard but does not remove them from the character.
  - **Paste** retrieves the contents of the clipboard and places those segments into the character as one or more new paths. Pasted segments are always placed in the same position they occupied when they were copied, even if you paste them into another character.

Be careful not to paste extra copies of segments on top of each other.

## Dragging segments

If you drag a segment, it and any other selected segments will move with the mouse pointer to a new position.

Unselected segments that are connected to the segments you drag will automatically be reshaped to remain connected to the moving segments.

Hold down the **Shift** key while you are dragging to limit the movement to the horizontal or vertical direction.

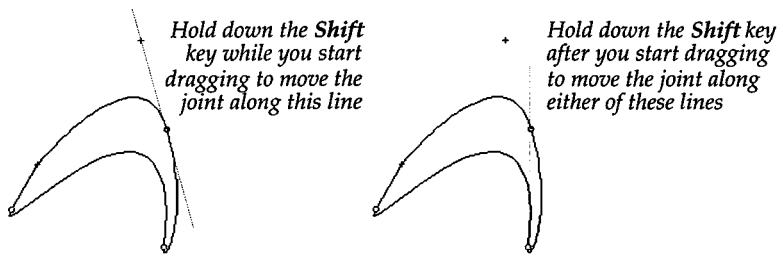
## Dragging join points

You drag a join point to move it. The segments on either side of the joint will be automatically reshaped as necessary.

### Constraining your drag

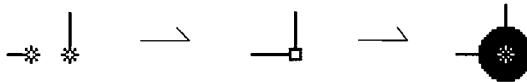
Hold down the **Shift** key as you start dragging a join point to limit the direction of movement to an imaginary line connecting the join point to its associated shape handle.

Hold down the **Shift** key after you start dragging a join point to limit the movement to the horizontal or vertical direction.



## Dragging open ends

When you drag the open end of a path over another open end, the first open end will “snap” to the location of the other open end and a large highlighting circle appears around both points.



If you release the mouse button while the highlighting is still visible, the two ends are joined together.

Use this technique to “close” an open path, or to combine two separate open paths into a single path.

If you do not want the two open ends to be joined, simply drag a little further until the highlighting disappears before releasing the mouse.

## Dragging shape handles

You can reshape a curved segment by dragging either of its shape handles. As you move a shape handle the “fullness” and direction of the curve change.

If you drag a shape handle that is associated with a smooth joint of a curve, the smoothness of the joint is maintained in one of two ways:

- If the curve is connected to another curve, the shape handle of the other curved segment moves along with the shape handle you are dragging.
- If the curve is connected to a line segment, the shape handle is restricted in movement to an imaginary line that extends the line segment.

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If you want to drag the shape handle freely without modifying a connected segment, first double-click on it to convert its associated join point into a corner joint.

### **Separating a shape handle from a join point**

Sometimes a shape handle gets placed directly over a join point and can be difficult to drag. You can drag the shape handle away from the join point using the following procedure:

1. Deselect any currently selected segments by clicking away from any segment or shape handle.
2. Select the segment you want to reshape.
3. Press the mouse button over the join point that obscures the shape handle and drag. The shape handle then moves away from the join point as you drag.

## **Modifying joints**

You can turn a smooth joint into a corner joint or vice versa simply by double-clicking on the join point, or by clicking on a shape handle next to the joint.

**NOTE:** *You cannot change the corner joint between two lines into a smooth joint.*

The appearance of the join point will change from a circle to a square (or vice versa) to indicate the new type of joint.

When you convert a smooth joint into a corner joint, the outline itself remains unchanged in shape. However, when you convert a corner joint into a smooth joint, the shape of the path may be modified to give the required smooth connection:

- If you convert a corner joint between a line and a curve, the curved segment is modified.
- If you double-click on a shape handle, the curved segment that the shape handle belongs to is modified.
- If you double-click on the join point, either curved segment may be modified.

---

## Modifying segments

You can turn a line segment into a curved segment or turn a curved segment into a line by holding down the **F5** key while you click on the segment.

A curved segment is replaced by a line segment between the join points of the curve. A line segment is replaced by a curved segment with its shape handles placed evenly between the join points.

## Other ways of moving segments and joints

### Precise dragging

Normally, when you drag a segment or joint, it moves with the mouse pointer. This means that the smallest distance you can move is one screen pixel. Depending on the display magnification, this may be 5, 10 or even more ruler units. (One ruler unit is  $\frac{1}{1000}$ th of the character's point size.)

You can move a segment or joint by just one unit at a time by holding down the **F5** key while dragging. For each screen pixel that the mouse pointer moves, the segment or joint moves one ruler unit.

If you release the **F5** key, the segment or joint will jump to the current mouse pointer position. You can alternate between holding down the **F5** key and releasing it at any time while dragging.

### Using the arrow keys

You can use the left, right, up and down arrow keys on your keyboard to move segments, joints or shape handles.

To move a joint or shape handle, first click on it. Notice that the small circle, square or cross becomes slightly larger. While a joint or shape handle is highlighted in this way, it is affected by the arrow keys.

On the other hand, if no joint or shape handle is highlighted, the arrow keys affect the selected segment (or segments).

To remove the highlighting, click on a selected segment.

---

Each press of an arrow key moves the selected segments, joint or shape handle one pixel in the direction of the arrow key. If you hold down the **F5** key, each press of an arrow key moves the selected segments, joint or shape handle one ruler unit.

### **Moving segments numerically**

When no joint or shape handle is highlighted (as described in the previous section), you can specify an exact number of units to move the selected segments by typing a value in the **Horizontal** or **Vertical** readouts text box.

Enter a number greater than zero to move up or to the right, and enter a number less than zero to move down or to the left.

### **Moving joints and shape handles numerically**

When a joint or shape handle is highlighted, you can use the readouts text boxes to move it by an exact number of ruler units, or to move it to an exact position.

To move the joint or shape handle by an exact distance, enter a value into the **Horizontal** or **Vertical** text box.

Notice that when a joint or shape handle is highlighted, the top two text boxes change to **Current X** and **Current Y**. These give the position of the joint or shape handle in ruler units.

You can move the highlighted joint or shape handle to another position by entering new values into either text box.

## **Using the scissors tool**



You can add or remove join points and split paths using the scissors tool. Activate the scissors tool by clicking on its icon in the toolbox.

### **Adding and deleting joints**

To add a joint, click on a path where you want the new joint.

To remove a joint, hold down the **F5** key and click on the joint you want to remove.

When a joint is removed, the segments on either side are combined mathematically into a single segment that closely matches the original segments.

---

**NOTE:** If you remove too many smooth join points or a corner point from a path, the shape of your character may change unacceptably.

### Splitting a path with the scissors tool

To split a path, double-click where you want the split to occur.

You can double-click within a segment, to break the segment into two parts and split the path between the parts, or double-click on a joint, to break the path at the joint.

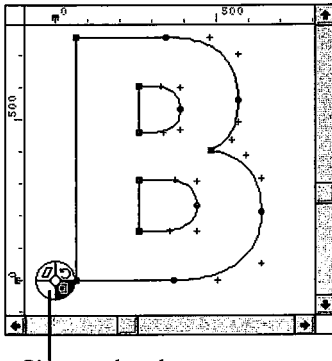
Either way, the place you double-clicked now has two overlapping open ends, indicated by a “starburst.”

### Using the gizmo tool

The “gizmo” tool is a combination tool that can scale, slant and rotate entire outlines or selected segments.



Activate the gizmo tool by clicking on its icon in the toolbox. While the gizmo is active, a circular *anchor* icon appears in the display area, initially at the character origin.



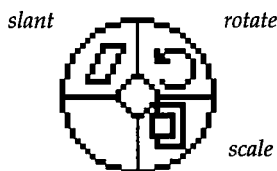
*Gizmo tool anchor*

The center of the anchor is the point about which scaling, slanting or rotation will occur. You can move the anchor to any desired location simply by dragging it.

**NOTE:** As you drag, the anchor automatically “snaps” onto joints and the character origin. You can prevent the snapping by holding down the *Shift* key while you drag.

---

The anchor is divided into four sections:



Three of the sections contain icons representing slanting, rotation and scaling. (The fourth section is currently unused.) Click on the section corresponding to the action you want to perform.

### To scale an outline



1. Select the segments you want to scale. If no segments are selected, the whole character will be scaled.
2. Click on the scale icon in the bottom right section of the anchor.
3. Move the mouse pointer anywhere in the display window (except over the anchor icon) and start dragging.

A rectangle with a diagonal line inside is drawn from the anchor to the mouse position to show the amount of scaling. As you drag, the selected segments are resized in proportion to the distance you have dragged. The **%Width** and **%Height** text boxes show the corresponding scale percentages.

4. To scale by equal amounts in both the vertical and horizontal directions, hold down the **Shift** key and drag at an angle of approximately 45 degrees from the anchor.
5. To scale only in the vertical or horizontal direction, hold down the **Shift** key and drag vertically or horizontally away from the anchor.

You can also enter a scaling percentage into either the **%Width** or **%Height** text box.

### To slant an outline



1. Select the segments you want to slant. If no segments are selected, the whole character will be slanted.
2. Click on the slant icon in the top left section of the anchor.

3. Move the mouse pointer anywhere in the display window (except over the anchor icon) and start dragging.

A line appears from the center of the anchor to the mouse pointer location to give you a visual reference for the amount of slant you are applying. As you drag, the selected segments are slanted by the amount you have dragged. The **Slant** text box shows the corresponding slant angle.

Alternately, you can enter a slant angle into the **Slant** text box.

### To rotate an outline

1. Select the segments you want to rotate . If no segments are selected, the whole character will be rotated.
2. Click on the rotation icon in the top right section of the anchor.
3. Move the mouse pointer anywhere in the display window (except over the anchor icon) and start dragging.



A line appears from the center of the anchor to the mouse pointer location to give you a visual reference for the amount of rotation you are applying. As you drag, the selected segments are rotated by the amount you have dragged. The **Rotate** text box shows the corresponding rotation angle.

You can also enter a rotation angle into the **Rotate** text box.

## Using the pen tool



The pen tool is used to draw outlines — one segment at a time. Activate the pen tool by clicking on its icon in the toolbox.

### Establishing a current point

The first step in drawing with the pen tool is to establish the *current point* to which you will append segments. You establish the current point by clicking on a blank spot in the display, which draws a single “starburst” at the click position.



*Establishing the current point for a new path*

Alternatively, you can click on the open end of an existing path to make it the current point for subsequent drawing.



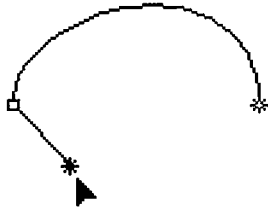


*Establishing the current point when linking onto an existing path*

After you establish the current point, you can add straight or curved segments.

### **Drawing straight line segments**

To draw a straight line segment from the current point to another point, just position the mouse at the second point and click. A line is drawn from the current point to the mouse position. The point you clicked on becomes the new current point.



- If you add a line segment by clicking on the opposite end of the path you are drawing, the path is closed with a line segment between the current point and the opposite end of the path.

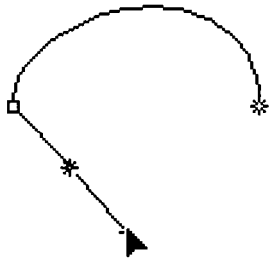
After the path is closed, there is no current point. If you wish to continue drawing, establish a new current point by either clicking in a new blank spot or by clicking on an end of another open path.

- If you hold down the **Shift** key while you click to create a straight line segment, the line segment is drawn either horizontally or vertically from the current point to the mouse pointer's vertical or horizontal position, depending on which is closer to the actual mouse position.

### **Drawing curved segments**

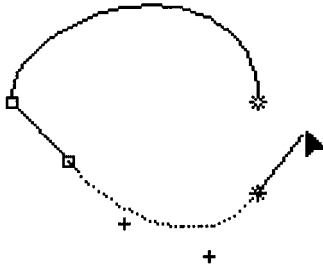
To draw a curved segment:

1. Move the mouse pointer over the current point and drag out a shape handle.



Hold down the **Shift** key as you drag out the shape handle if you are connecting to an existing segment and you want a smooth joint. Otherwise you will get a corner joint.

2. Move the mouse pointer to the position at which you want the curve to end. Drag away from this position to shape the curve as needed.



If you want to continue by adding a curve that is smoothly connected to the previous curve, repeat step 2. If you want to continue by adding a curve that is connected by a corner joint, repeat from step 1.

### **Adding a straight line segment to a curve**

If you want to add a straight line segment from the end of a curved segment you have just drawn, just move the mouse pointer to the place where you want the line to end and click.

### **Adding a curved segment to a straight line**

To add a curved segment to a line segment, use the procedure described in "Drawing curved segments."

---

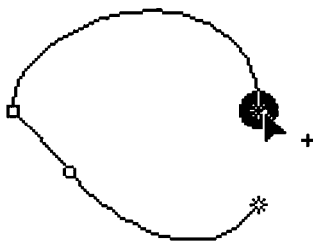
## Closing a path with a curve

To close a path with a curve (or to join two paths) with a curved segment:

1. Move the mouse pointer over one end of a path and drag out a shape handle.

Hold down the **Shift** key as you drag out the shape handle if you want a smooth joint. Otherwise you will get a corner joint.

2. Move the mouse pointer over the other end of the path (or an end of another path). Drag away from this position to shape the curve.



Hold down the **Shift** key as you start dragging to join the curve smoothly.

## Starting a new path

If you have drawn a path with the pen tool but not yet closed it, and you want to start drawing another path, you must first eliminate the current point.

You can do this by activating any other tool from the toolbox. Then click on the pen tool icon in the toolbox to reactivate the pen.

## Merging outlines

Often, character shapes appear to be created by overlapping different shapes. For instance, a dollar sign looks like a vertical bar shape drawn through an 'S' shape.

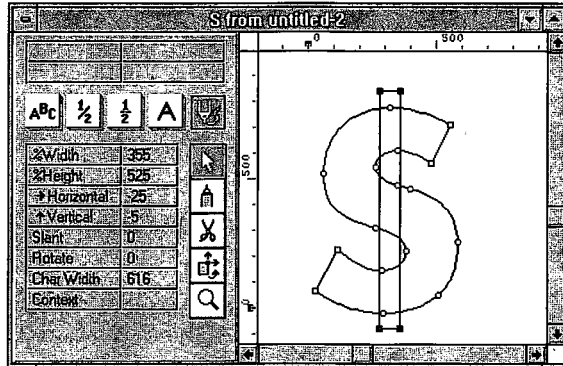
But if you actually draw a character this way, you break one of the important rules of character design — that paths must not cross over each other.

FontMonger has the ability to take an “incorrect” character design like this and remove the overlapping parts of the paths, resulting

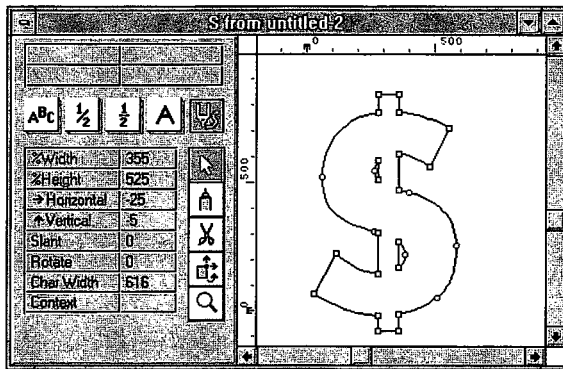
in a “correct” character that has the same shape. This process is known as *merging outlines*.

To construct a character using this technique:

1. Construct the outline using overlapping paths.



2. Choose **Merge Outlines** from the **Edit** menu. FontMonger computes all the intersection points of the paths, removes the extra segments between the intersections and joins the resulting pieces together into a well-formed outline.



If you forget to close any of the paths that overlap, FontMonger only computes the intersection points of the paths. It does not remove any of the extra segments between the intersections.

---

## Requirements for character outlines

- A path must not cross over itself. If you draw a path that crosses over itself, the character will not fill in properly when you try to use the font containing the character.
- All paths must be closed. If you do not close a path, FontMonger automatically joins the open ends with a straight line segment when it creates the font. This may not yield the desired result.

See the sections “Drawing straight line segments” and “Closing a path with a curve” in this chapter for details of the procedures for closing a path.

- A curved segment must not have a loop. It is possible to drag the shape handles of a curve in such a way that a loop gets introduced into the curve. This can cause the resulting character to fill incorrectly when it is built into a font.
- A path must not overlap another path. If you draw overlapping paths, the resulting character will not fill correctly when it gets built into a font. Use **Merge Outlines** from the **Edit** menu to remove overlaps.

---

## Chapter 9. Menu Reference

This chapter describes each item on FontMonger's menus and the dialogs associated with them.

In this chapter, menu items are named using a shorthand form:

*menu name: item name*

For example, **Exit** on the **File** menu is referred to as **File:Exit**.

### File menu — New (Ctrl+N)

**New** creates a new FontMonger font document and displays an untitled keyboard window for it.

Initially, the new font has no characters, so all the keycaps in the window use the System font to show the characters *normally* associated with each key. The System font characters are drawn in gray to indicate the absence of actual characters in the font.

You add characters to the new font by:

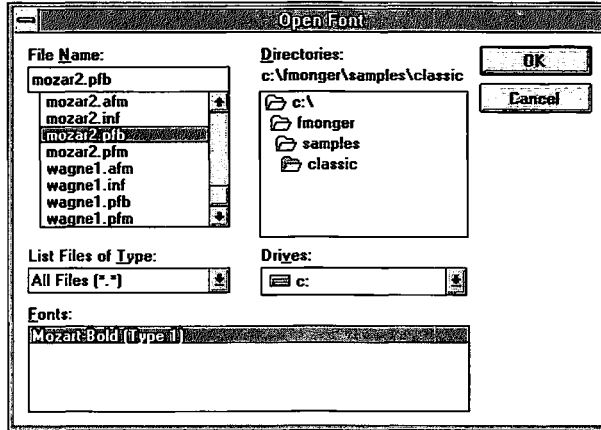
- Pasting characters from other fonts (see **Edit:Paste** ).
- Importing characters from graphics files (see **File:Import**).
- Creating new character outlines using FontMonger's drawing tools (see Chapter 8).

Before attempting to build a font file, you should ensure that the font information is correct (see **File:Build Font** and **Options:Set Font Information**).

### File menu — Open (Ctrl+O)

**Open** either opens an existing FontMonger font document file, or converts the contents of a font file into a new FontMonger document, and displays the font in a keyboard window.

When you choose **Open**, the Open Font dialog appears:



## Drives

Drop down the list of drives on your system to choose the disk containing the font you want to open.

## Directories

Choose the directory containing the font you want to open.

The full path name of the current directory is shown above the list. The current directory also appears in the **Directories** list with a gray “open folder” icon preceding it.

The directories above the current directory in the list are its “parent” directories. The directories below the current directory are its sub-directories. Double-click on parent directories or sub-directories to move up or down the hierarchy of directories on your disk.

## File Name

Choose the name of the file containing the font you want to open by selecting its file name in the list box or by typing its name into the text box.

## List Files of Type

Choose one of the following file types to limit the files displayed in the **File Name** list to those having the indicated extensions:

---

<u>File Type</u>	<u>Extension</u>
All Files	all
FontMonger	.FRF or .FRT
TrueType	.TTF
PostScript Type 1	.PFB or .NXT
PostScript Type 3	.PFA or .PSO
Corel	.WFN
LaserMaster	.LXO
Nimbus Q	.FNT
Intellifont	.FI
All Macintosh files	.MRF

*NOTE: FontMonger cannot recognize a font file unless it has the correct extension as shown in the above table. If you have renamed your font files with a different extension, you must restore the correct extension before opening them with FontMonger.*

### **Fonts**

The **Fonts** list shows the full names of fonts contained in the file selected in the **File Name** list.

FontMonger document files and most font files can contain only a single font. However, Corel, Intellifont and Macintosh font files may contain several fonts. Choose the font you want to open by selecting it in the **Fonts** list.

The **Fonts** list is empty if the selected file does not contain any fonts or is not a valid font file.

### **File menu — Close (Ctrl+W)**

**Close** closes the active (frontmost) keyboard or Alter Character window within FontMonger's main window.

Closing an Alter Character window causes any alterations applied in the window to take effect in the font.

Closing a keyboard window closes the associated FontMonger font document. If the font is new (untitled), or if an existing font has been modified, FontMonger asks if you want to save the font before closing the keyboard window.



## File menu — Save (Ctrl+S)

**Save** saves the font document associated with the active (frontmost) keyboard or Alter Character window.

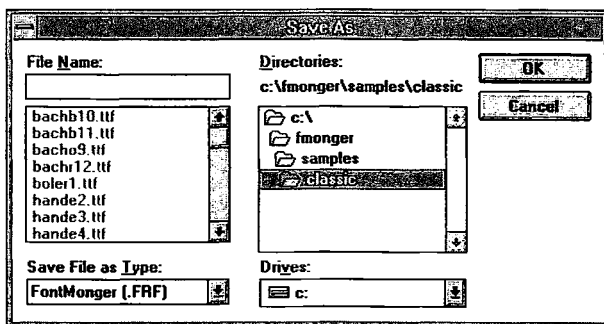
After making changes to a font document, you should always save the font *as well as* build an installable font file. Saving the font makes it readily available in case you need to make further changes.

You should also use **Save** regularly (perhaps as often as every few minutes) while you are modifying a font. In the event of a power failure or system error, you will then only lose changes you've made since the last save.

If you save a new font — one with an untitled keyboard window — FontMonger will ask you to name the document file, as if you had chosen **File:Save As** instead.

## File menu — Save As

**Save As** saves a font into a new font document file. When you choose **Save As**, the Save As dialog appears:



### Drives

Drop down the list of drives on your system to choose the disk onto which you want to save the font.

### Directories

Choose the directory into which you want to save the font.

---

The full path name of the current directory is shown above the list. The current directory also appears in the **Directories** list with a gray “open folder” icon preceding it.

The directories above the current directory in the list are its “parent” directories. The directories below the current directory are its sub-directories. Double-click on parent directories or sub-directories to move up or down the hierarchy of directories on your disk.

### **File Name**

Enter the name you want to use for the document file. You can use any name you wish — the name doesn’t have to reflect the font’s full name, since the full name is stored within the document file, but the file name is limited to 8 characters.

There’s no need to enter an extension in the **File Name** text box. FontMonger supplies the correct extension for you automatically.

### **Save File as Type**

Choose one of the FontMonger document file types:

- normal FontMonger document files have extension **.FRF**
- FontMonger template document files have extension **.FRT**

Template documents are identical in format to normal document files. However, when you open a template font document, FontMonger automatically makes a copy of the font, leaving the template document file untouched.

## **File menu — Revert to Saved**

**Revert to Saved** discards any changes you have made to a font since the last time it was saved.

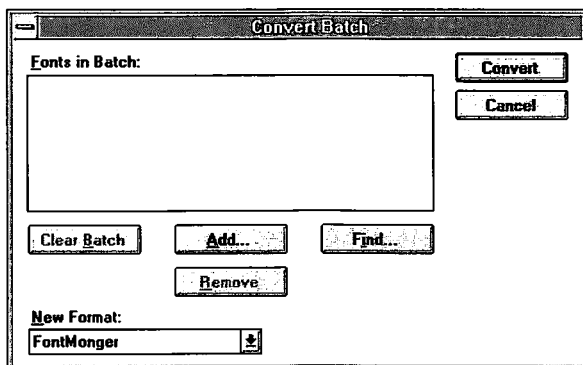
You cannot revert a font until it has been saved at least once.

## **File menu — Convert Batch (Ctrl+B)**

**Convert Batch** converts a group of fonts in any format to a new format. It can also convert fonts into FontMonger document files.

---

When you choose **Convert Batch**, the Convert Batch dialog appears:



### Fonts in Batch

The **Fonts in Batch** list shows you the fonts that are currently in the batch.

The first time you use **Convert Batch**, the list is empty, and you use the **Find** and **Add** buttons to construct a batch.

The next time you use **Convert Batch**, the list contains the fonts that you previously placed in the batch. You can add more fonts to the batch, or remove fonts from the batch with **Remove** or **Clear Batch**.

Fonts that have already been converted are listed with a number preceding their name. This is the same number that appears as part of the converted font's file name, so you can easily relate fonts in the list to files that were created.

Fonts without a number have not been converted yet.

### Clear Batch

Choose **Clear Batch** to remove all fonts from the batch.

### Remove

Choose **Remove** to remove fonts selected in the **Fonts in Batch** list from the batch.

---

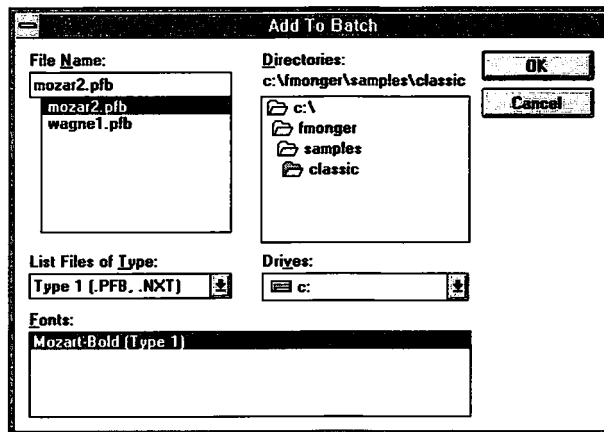
## New Format

Choose one of the formats that FontMonger can convert to:

FontMonger	.FRF	FontMonger documents
TrueType	.TTF	Windows 3.1 TrueType fonts
Type 1	.PFB	PC PostScript Type 1 fonts
Type 3	.PFA	PC PostScript Type 3 fonts
Nimbus Q	.FNT	Nimbus Q fonts
TrueType for Mac	.MRF	System 7 TrueType fonts
Type 1 for Mac	.MRF	Macintosh PostScript Type 1 fonts
Type 3 for Mac	.MRF	Macintosh PostScript Type 3 fonts
Type 1 for NeXT	.NXT	NeXT PostScript Type 1 fonts

## Add

Choose **Add** to add a single font to the batch. The Add to Font dialog appears:

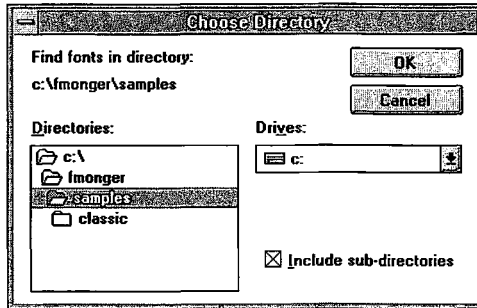


This dialog is identical to the Open Font dialog, except that when you choose **OK**, the selected font is added to the batch instead of being opened. See **File:Open** for more information.

---

## Find

Choose **Find** to search a single directory, multiple directories or an entire disk for fonts in formats which FontMonger can read. The Choose Directory dialog appears:



### Drives

Drop down the list of drives on your system to choose the disk containing the directory you want to search.

### Directories

Choose the directory you want to search for fonts.

The full path name of the current directory is shown above the list. The current directory also appears in the **Directories** list with a gray “open folder” icon preceding it.

The directories above the current directory in the list are its “parent” directories. The directories below the current directory are its sub-directories. Double-click on parent directories or sub-directories to move up or down the hierarchy of directories on your disk.

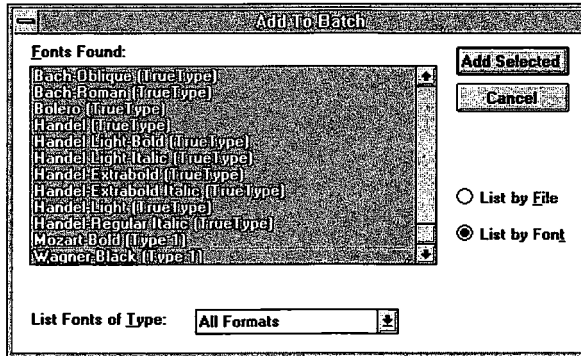
### Include sub-directories

Choose this option to include all sub-directories of the chosen directory in the search. If you don’t choose this option, FontMonger skips over the files in the sub-directories when searching the chosen directory.

To search an entire disk, choose the root directory (the top directory) in the **Directories** list, and choose the **Include sub-directories** option.

When you choose **OK**, FontMonger searches your chosen directory, and its sub-directories if requested, for fonts.

At the completion of the search, a dialog appears, showing the fonts that were found:



### Fonts Found

The **Fonts Found** list shows file names or full font names of all the fonts that FontMonger found during the search.

Initially, every item in the list is selected, so you can quickly add them to the batch by choosing **Add Selected**. If you don't want to add all of the fonts, adjust the selection so that only the fonts you want are selected.

### List Fonts of Type

To limit the fonts shown in the **Fonts Found** list, choose a font type from the **List Fonts of Type** list.

If you choose an entry other than **All Formats**, then only the selected fonts of the chosen format will be added to the batch when you choose **Add Selected**.

### List by File

Choose this option to show file names in the **Fonts Found** list. If FontMonger found more than one font in a single file, the font name will appear several times in the list — once for each font found.

### List by Font

Choose this option to show full font names in the **Fonts Found** list.

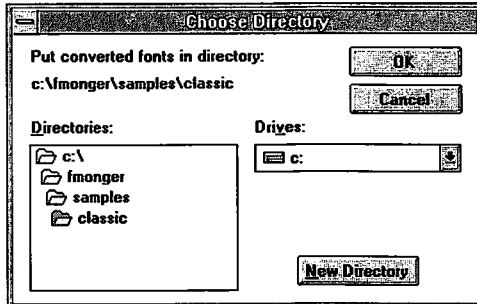
---

## Add Selected

Choose **Add Selected** to add the fonts selected in the **Fonts Found** list to the batch.

## Convert

Once you've constructed a batch of fonts, choose **Convert**. The Choose Directory dialog is displayed:



## Drives

Drop down the list of drives on your system to choose the disk where you want to save the converted files.

## Directories

Choose the destination directory into which you want to place the converted files.

## New Directory

Choose **New Directory** if you want to create a new directory for the converted files, then enter a name for the new directory in the New Directory dialog.

When you choose **OK** in the Choose Directory dialog, the conversion process begins. During conversion, FontMonger displays a progress indicator showing how many fonts remain to be converted.

You can interrupt the conversion process at any time by choosing **Stop**. Files for the fonts that have already been converted can be found in the destination directory.

---

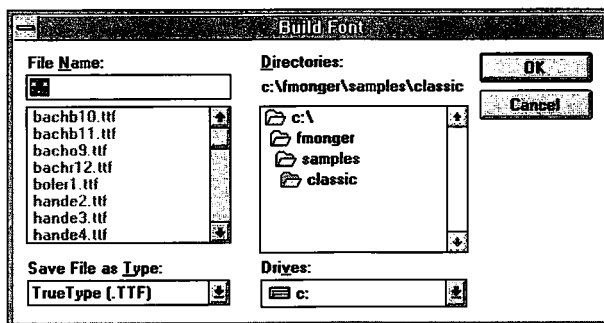
## File menu — Build Font (Ctrl+F)

**Build Font** creates a font file that you can install into Windows or your type management software.

You build a font file whenever you have made changes to a FontMonger font document and are ready to install those changes into your system.

*NOTE: If you need to build a number of font files, you may find it more convenient to convert them as a batch to the appropriate format instead of building them individually. See **File:Convert Batch** for more information about batch conversions.*

When you choose **Build Font**, the Build Font dialog appears:



This dialog is identical to the Save Font dialog (see **File:Save As**) except that you choose a font file format instead of a FontMonger document type. The font file formats are:

TrueType	.TTF	Windows 3.1 TrueType fonts
Type 1	.PFB	PC PostScript Type 1 fonts
Type 3	.PFA	PC PostScript Type 3 fonts
Nimbus Q	.FNT	Nimbus Q fonts
TrueType for Mac	.MRF	System 7 TrueType fonts
Type 1 for Mac	.MRF	Macintosh PostScript Type 1 fonts
Type 3 for Mac	.MRF	Macintosh PostScript Type 3 fonts
Type 1 for NeXT	.NXT	NeXT PostScript Type 1 fonts



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## File menu — Import Character (Ctrl+I)

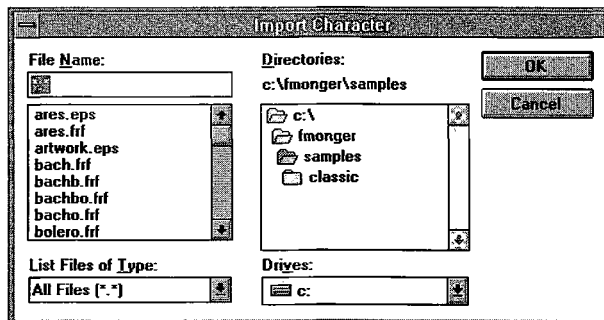
**Import Character** imports the contents of a graphics file into a font as a character. You must select a single keycap in the font's keyboard window to be associated with the imported character.

You can import graphics files in the following formats:

- Adobe Illustrator (AI) document files from any version of Windows or Macintosh Illustrator (since version 1.1), or from CorelDraw, Micrografx Designer and Art & Letters.
- Encapsulated PostScript (EPS) files from Illustrator.
- Encapsulated PostScript (EPS) files from CorelDraw.

You can also import EPS files from a number of other applications. However, since the format of EPS files varies widely between applications, you should experiment with the applications you want to use to find out if they're compatible with FontMonger.

When you choose **Import Character**, the Import Character dialog appears:



### Drives

Drop down the list of drives on your system to choose the disk containing the graphics file you want to import.

### Directories

Choose the directory containing the file you want to import.

See **File:Open** for more information on using this list.

---

## File Name

Choose the name of the file you want to import by selecting its file name in the list box or by typing its name into the text box.

## List Files of Type

Choose one of the following file types to limit the files displayed in the **File Name** list to those having the indicated extensions:

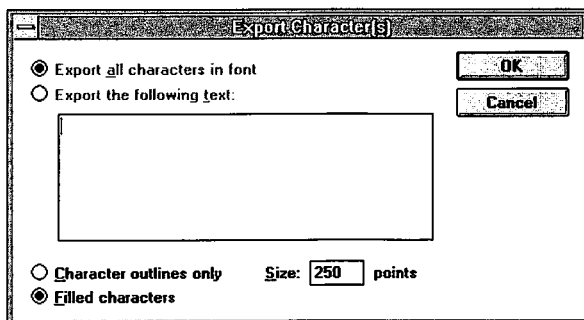
<u>File Type</u>	<u>Extension</u>
All Files	all
Adobe Illustrator	.AI
Encapsulated PostScript	.EPS
All Macintosh files	.MRF

## File menu — Export Character(s) (Ctrl+E)

**Export Character(s)** allows you to export some or all of the characters in a font into a graphics file. You may do this to:

- embellish characters and use them as artwork
- edit the character outlines and import them back into the font (although you may find FontMonger's built-in drawing tools more convenient).

When you choose **Export Character(s)**, the Export Character dialog appears:



### Export all characters in font

Choose this option to export all the characters in the font into a single graphics file.

---

## Export the following text

Choose this option to export only the characters you enter in the text box.

If you want each character in a separate file, you must export each character separately.

## Character outlines only

Choose this option to format the exported characters with a stroke around their edges. The interior of the character paths are unfilled.

## Filled characters

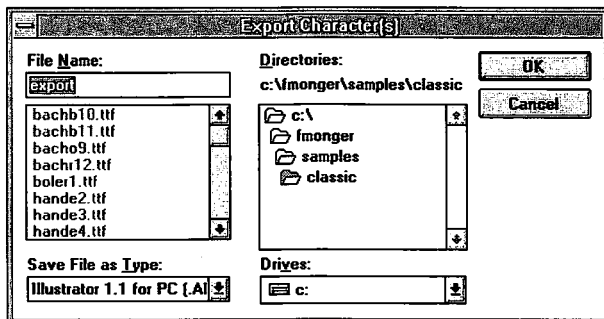
Choose this option to format the exported characters with a solid black fill. (The inner paths of the character are filled with white instead.)

## Size

Enter the point size you want for the exported characters.

When you export a single character, you should use the default value of 250 points. But if you export many characters, you should decrease the point size so that the exported characters will fit in the graphic image that FontMonger creates.

Once you have selected the formatting options, choose **OK** to bring up a dialog in which you name the new graphics file:



This dialog is identical to the Save Font dialog (see **File:Save As**), except that you choose a graphics file format instead of a FontMonger document format. You can export in the following formats:

---

<u>Format</u>	<u>Extension</u>
Adobe Illustrator	.AI
Encapsulated PostScript	.EPS
Windows Metafile	.WMF

## **File menu — Print (Ctrl+P)**

When the active keyboard window is in the keyboard layout view (see **Options:Keyboard Layout**), **Print** prints a diagram that you can use to locate characters on your keyboard.

You'll find keyboard layout diagrams useful when you're using your fonts with other applications, especially if you've rearranged the fonts in a non-standard way.

The printed output consists of two parts:

- A keyboard layout showing you the characters associated with the unshifted, Shift, Ctrl+Alt and Shift+Ctrl+Alt modifier combinations. Each key position in the layout is arranged as follows:

Shift	Shift+Ctrl+Alt
unshifted	Ctrl+Alt

- A list of any characters that are associated with other modifier combinations, including dead keys if your keyboard configuration has them.

When the active keyboard window is in the character chart view (see **Options:Character Chart**), **Print** prints the entire character chart.

## **File menu — Print Setup**

**Print Setup** lets you configure your printer before printing begins.

When printing keyboard layouts on standard paper sizes, you should normally choose landscape rather than portrait orientation, since the layout diagram fits the page better in landscape orientation.

---

Consult your Windows documentation for more information about using the options in the Print and Print Setup dialogs.

## **File menu — Exit**

**Exit** exits from the FontMonger application. If you have windows open with any unsaved changes to fonts, FontMonger gives you the option of saving each font before exiting.

## **Edit menu — Undo (Ctrl+Z)**

**Undo** reverses up to the last eight actions you performed in an Alter Character window. Eight actions are remembered for *each* window.

You can only undo actions that modify the character data. Environmental changes such as zooming in or out, or scrolling the display, cannot be undone with **Undo**.

The text of the **Undo** menu item changes to show you the last action you performed.

## **Edit menu — Redo (Ctrl+Y)**

**Redo** reapplies changes that you have reversed with **Undo**.

You can mix Undo and Redo to step forwards or backwards through your last eight changes, but once you perform any new action, any undone change can no longer be redone.

The text of the **Redo** menu item changes to show you the next action that can be redone.

## **Edit menu — Cut (Ctrl+X)**

In a keyboard window, **Cut** removes the selected characters from the font and places them on the clipboard — ready to be pasted into different character positions or into another font if you wish.

In an active text box of a dialog or the Alter Character window, **Cut** deletes the selected text and places it on the clipboard.

When editing outlines in the Alter Character window, **Cut** deletes the selected segments from the character and places them on the clipboard.

---

## Edit menu — Copy (Ctrl+C)

In a keyboard window, **Copy** places the selected characters from the font on the clipboard without changing the font.

In an active text box of a dialog or the Alter Character window, **Copy** places the selected text on the clipboard.

When editing outlines in the Alter Character window, **Copy** places the selected segments of the character on the clipboard.

## Edit menu — Paste (Ctrl+V)

In a keyboard window, **Paste** places the characters from the clipboard into the font.

- If keycaps are selected in the window, **Paste** replaces the characters on the selected keys with the characters on the clipboard.
- If no keycaps are selected, **Paste** replaces the characters at the keyboard positions that the clipboard characters were originally copied from, even if they were copied from another font.

In an active text box of a dialog or the Alter Character window, **Paste** replaces the selected text with the text on the clipboard.

When editing outlines in the Alter Character window, **Copy** adds the segments on the clipboard to the character.

## Edit menu — Delete (Del)

In a keyboard window, **Delete** removes the selected characters from the font.

In an active text box of a dialog or the Alter Character window, **Delete** deletes the selected text. If no text is selected, **Delete** deletes the text character immediately after the flashing insertion point.

When editing outlines in the Alter Character window, **Delete** deletes the selected segments from the character.

---

## Edit menu — Select All (Ctrl+A)

In a keyboard window, **Select All** selects all keycaps:

- In the keyboard layout view (see **Options:Keyboard Layout**), **Select All** selects all keycap positions that can be accessed from the keyboard. This includes dead keys, but does not include any characters that are *only* accessible with **Alt**+numeric keypad combinations.
- In the character chart view (see **Options:Character Chart**), **Select All** selects all 256 keycap positions.

In an active text box of a dialog or the Alter Character window, **Select All** selects all the text in the text box.

When editing outlines in the Alter Character window, **Select All** selects all segments in the character.

## Edit menu — Select 0-9

## Edit menu — Select a-z

## Edit menu — Select A-Z

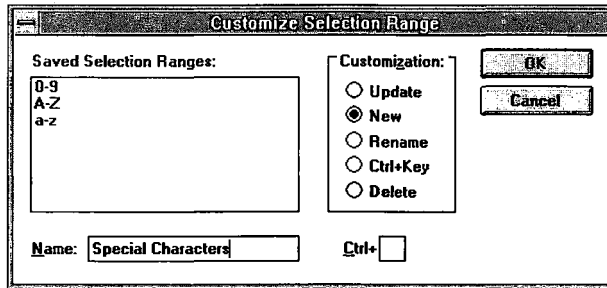
These three menu items select the keycaps corresponding to the listed ranges of characters.

You can add your own selection ranges to the menu by using **Edit:Customize Range**.

## Edit menu — Customize Range

**Customize Range** lets you define ranges of characters that can be selected in a single operation. Your customized ranges appear on the Edit menu along with the three built-in ranges supplied with FontMonger.

When you choose **Customize Range** the Customize Selection Range dialog appears:



### Saved Selection Ranges

This list shows the selection ranges that have already been defined. When performing a customization other than creating a new range, select the name of the range you want to affect.

### Customization

Choose one of the five customization actions:

- **Update** redefines an existing selection range.
- **New** creates a new selection range.

For both **Update** and **New**, you must select the characters that you want to form the range in a keyboard before you choose **Customize Range**.

- **Rename** changes the name of an existing selection range.
- **Ctrl+Key** assigns a keyboard shortcut to any existing selection range. (You can also assign a keyboard shortcut while creating or renaming a range.)

You can use the Ctrl key in combination with any of the numbers 0-9 as keyboard shortcuts.

- **Delete** removes an existing selection range. You can remove the three built-in ranges if you wish.

### Name

Enter the name of a selection range that you are creating or renaming.



---

## **Ctrl+Key**

Enter a number from 0 to 9 for use as a keyboard shortcut (in conjunction with the Ctrl key) for the selection range.

## **Edit menu — Merge Outlines**

**Merge Outlines** provides one way of resolving the potential problems caused by paths that overlap in a character outline.

When you are editing outlines in an Alter Character window, **Merge Outlines** examines the character for paths that overlap, computes the points where the overlapping paths cross, then removes the fragments of the paths within the overlapping region.

The result is a character having the same shape as before, but without any overlapping paths.

*NOTE: A font containing characters with overlapping paths will not display or print correctly when you install it in your system.*

## **Edit menu — Remove Character(s) (Ctrl+R)**

**Remove Character(s)** removes the association between a keycap and the character it currently displays.

The effect is similar to deleting a character (see **Edit:Delete**) — the character is no longer accessible from that key — but the character is not deleted from the font.

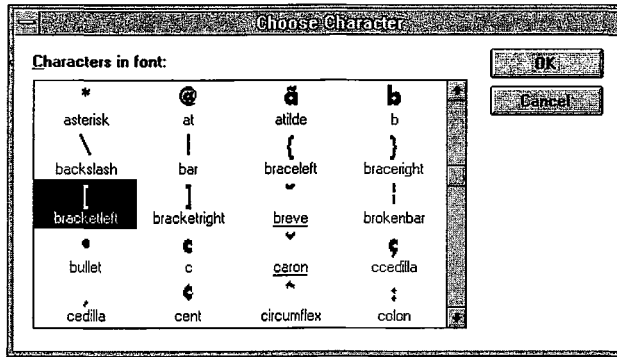
Use **Edit:Choose Character** if you want to assign the character to the same or another keycap.

## **Edit menu — Choose Character (Ctrl+K)**

In a keyboard window, **Choose Character** lets you pick any character in the font and assign it to a keyboard position. You use **Choose Character** to gain access to the unencoded characters in your fonts, as well as characters that you've removed from the keyboard.

In the **Components**, **Fraction Top**, **Fraction Bottom** or **Context** text boxes of an Alter Character window, **Choose Character** lets you insert any character from the font into the text box for use as a component or context character.

In either case, you choose the character from the Choose Character dialog:

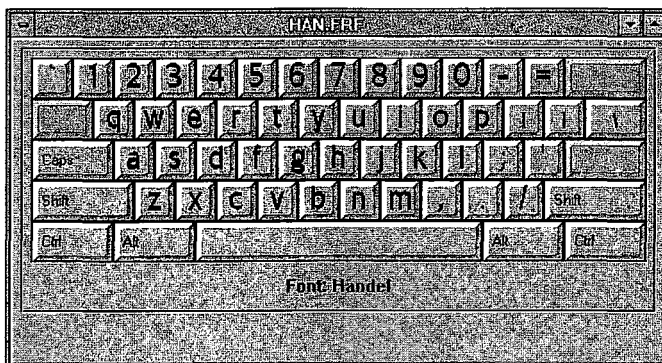


The **Characters in Font** list shows every character in the font in a four-column format. Below each character is its character name, which helps you distinguish between characters. The character name is underlined if the character is not currently assigned to any keyboard position.

*NOTE: If, for a particular keyboard position in a keyboard window, you choose a character that has already been assigned to another keycap, FontMonger will create a temporary copy of the character for the new keyboard assignment. If you bring up the Choose Character dialog again, you will see both copies of the character.*

## Options Menu — Keyboard Layout

Choose **Keyboard Layout** to place a keyboard window in the “keyboard layout view”:

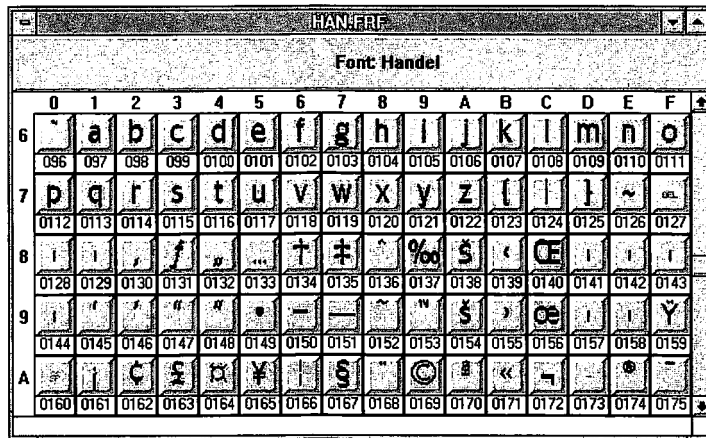


The menu item is checked when the window is in the keyboard layout view.

## Options Menu — Character Chart

Choose **Character Chart** to place a keyboard window in the “character chart view.” The menu item is checked when the window is in the character chart view.

In this view, the window shows all 256 characters in the Windows ANSI character set:



The number below each character is the sequence of digits you type on your numeric keypad, with the Alt key held down, to access each character in the character set.

If your screen is not big enough to show the entire chart, you can scroll the window to see the rest of the characters.

## Options Menu — Show System Font

**Show System Font** controls how FontMonger displays characters on keycaps in a keyboard window and within the Composite, Fraction Top, Fraction Bottom and Context text boxes of the Alter Character window.

Normally, FontMonger shows characters in these places using its own built-in fonts that are based on the standard U.S. System font layout.

---

Choose **Show System Font** if your System font is significantly different from the U.S. System font and you are having trouble relating characters to their normal keyboard positions.

When **Show System Font** is not checked:

- In a keyboard window, FontMonger shows characters on keycaps using the font you opened. Keycaps with no assigned character show a gray character from FontMonger's built-in font.

This built-in font is similar to the standard U.S. Windows System font, but can represent uniquely all 256 characters in the Windows ANSI character set.

- In an Alter Character window, FontMonger shows characters in the text boxes using its built-in font.

When **Show System Font** is checked:

- In a keyboard window, FontMonger uses your actual System font on all keycaps.
- In an Alter Character window, FontMonger uses your system's standard sans-serif font.

## Options Menu — Set Font Information

**Set Font Information** calls up a dialog which shows descriptive information for the font in the active keyboard window:

The screenshot shows a dialog box titled "Set Font Information". It contains several input fields and buttons. The "Family Name" field is filled with "Wendel". The "Font Style/Weight Name" field is filled with "Regular". The "Stroke Weight" dropdown is set to "Regular". The "Font Width" dropdown is set to "Normal". The "Family Relationship" dropdown is set to "Plain member". The "Family Metrics" section has three input fields: "Ascent" (0), "Descent" (0), and "Line Gap" (0). The "Font Classification" section has two checkboxes: "Sans-serif" (checked) and "Decorative" (unchecked). There are "OK" and "Cancel" buttons in the top right corner.

Set Font Information	
Family Name:	Wendel
Font Style/Weight Name:	Regular
Stroke Weight:	Regular
Font Width:	Normal
Family Relationship:	Plain member
Family Metrics:	
Ascent:	0
Descent:	0
Line Gap:	0
Font Classification:	
<input checked="" type="checkbox"/> Sans-serif	
<input type="checkbox"/> Decorative	
OK Cancel	

---

## Family Name

This is the common base name of a group of related fonts. If you want to construct a family of fonts, they must all have exactly the same family name.

When you examine the font information for a font that FontMonger has converted from a font file, you may find that the family name contains hyphens or is missing spaces between words. This causes no harm, but you may edit the name to improve its appearance if you wish.

Every FontMonger document must have a family name in order to be usable. If you try to build a font file from a font document that does not have a family name, FontMonger will display the Set Font Information dialog so that you can enter a name.

## Font Style/Weight Name

This is the part of a font's name that distinguishes different fonts in the same family. Each member of the family should have a different name.

You can enter any name you want in this text box, but the traditional names (regular, bold, italic and bold-italic) are recommended.

If you do not enter anything in the **Font Style/Weight Name** text box, FontMonger will automatically use "Regular" when you build the font into a font file.

## Stroke Weight

This drop-down list describes the *stroke weight* of a font — that is, the relative thickness of the upright parts of characters like *H* and *I*.

When you create or modify a font, choose the list entry that best describes the stroke weight of your font. If you're not certain of the best stroke weight to use, choose **Regular** or **Unknown**.

Currently, **Stroke Weight** is significant only for Windows TrueType fonts.

## Font Width

This drop-down list describes the overall "proportions" of a font, compared to a "normal" font.

---

A font whose characters are narrower than normal is called *condensed* (or *compressed*). A font with wider characters is called *expanded* (or *extended*).

When you create or modify a font, choose the list entry that best describes the overall proportions of your font. If you're not certain of the best font width to specify, choose **Normal** or **Unknown**.

Currently, **Font Width** is significant only for Windows TrueType fonts.

### **Family Relationship**

This drop-down list shows you whether a font is a member of a family of fonts. When you create or modify a font, you should ensure that an appropriate list entry is chosen.

Every family must have a "plain" member, which is usually a font whose stroke weight is **Regular** and whose font width is **Normal**.

Other family members are optional, with **Bold**, **Italic** and **Bold-Italic** being the most common. FontMonger lets you choose these relationships explicitly. If a family has any other members, you should choose **Other family member** for each of them.

If a font is *not* a member of a family, you must choose **Plain member** from the list.

### **Family Metrics**

The ascent, descent and line gap of a font are, respectively, the height of a font's lowercase letters with ascenders (such as *b*, *d* and *h*), the depth of a font's lowercase letters with descenders (such as *p*, *q* and *y*), and the amount of extra space to insert between lines of text formatted in the font.

FontMonger normally determines appropriate values for these three *font metrics*, so you can usually leave the **Ascent**, **Descent** and **Line Gap** text boxes set to zero.

If you want exactly the same metrics for all members of a family of fonts, you should not rely on FontMonger's automatic determination, since the differences in font design between family members will affect the results. Instead, you should enter the same values in the **Ascent**, **Descent** and **Line Gap** text boxes for each member of the family.

---

The values in these text boxes are specified in  $\frac{1}{1000}$ ths of the font's point size.

### **Sans-serif**

The **Sans-serif** option indicates whether a font was designed without serifs.

When you create or modify a font, you should ensure that the **Sans-serif** option reflects the actual font design.

Currently the option is significant only for Windows TrueType fonts. Its only purpose is to permit Windows to make reasonable decisions about whether the font can be substituted for another font that is referred to by a Windows application but is missing from your system.

### **Decorative**

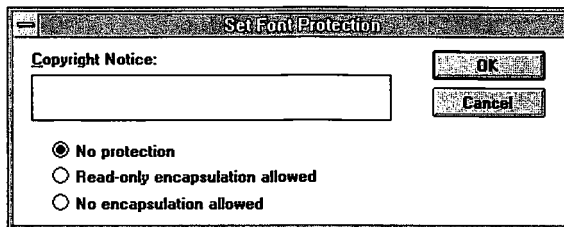
The **Decorative** option indicates whether a font has a normal alphabetic character set or whether it consists of non-alphabetic characters such as dingbats, music symbols, map symbols and so on.

When you create or modify a font, you should ensure that the option reflects the actual font design.

Currently, the **Decorative** option is significant only for Windows TrueType fonts. Some word processors treat decorative fonts differently from normal fonts, letting you access their characters via numeric codes.

## **Options Menu — Set Font Protection**

**Set Font Protection** displays a dialog which allows you to examine and possibly change the information within a font that protects it from unauthorized use:



---

## Copyright Notice

The **Copyright Notice** text box shows you the copyright information that is stored within a font.

You cannot change the copyright notice in a font that you did not create in FontMonger (using **File:New**).

## No protection

## Read-only encapsulation allowed

## No encapsulation allowed

These three options control whether the font may be embedded in documents transferred between different computers.

- **No protection:** The font may be embedded in documents without restriction. When a document is transferred to another computer, the font may be installed on that computer and retained even after the document has been discarded.
- **Read-only encapsulation allowed:** The font may be embedded in documents for the sole purpose of viewing those documents on another computer. When the documents are discarded, the fonts may not be retained.
- **No encapsulation allowed:** The font may not be embedded in any document.

The protection options are significant only for Windows TrueType fonts.

## Options Menu — Snap to Guide Lines

In an Alter Character window, horizontal and vertical guide lines allow you to align characters or character parts precisely.

When **Snap to Guide Lines** is checked, the elements you drag will “snap” or jump to the exact guide line position when they come within a short distance of the position.

When **Snap to Guide Lines** is unchecked, the guide lines still appear in the window, but do not have any effect on dragging.



---

## Alterations menu — Normal

**Normal** removes any alterations you have previously applied to the character in an Alter Character window, or to the selected characters in a keyboard window.

## Alterations menu — Small Caps

## Alterations menu — Slant

## Alterations menu — Superior

## Alterations menu — Inferior

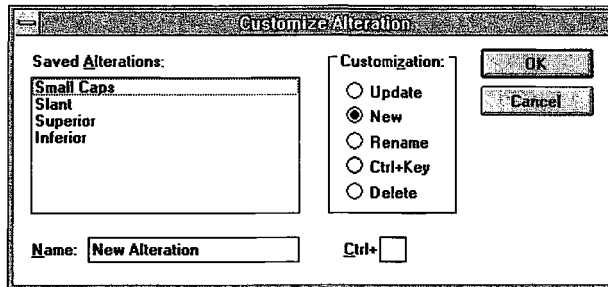
These built-in alterations provide the most common modifications to characters. Each has a different effect on character size, slant and placement:

<u>Alteration</u>	<u>Horizontal</u> <u>Scale</u>	<u>Vertical</u> <u>Scale</u>	<u>Vertical</u> <u>Position</u>	<u>Slant</u> <u>Angle</u>
Small Caps	65%	60%	normal	none
Slant	100%	100%	normal	13° to right
Superior	65%	60%	400 units above baseline	none
Superior	65%	60%	200 units below baseline	none

## Alterations menu — Customize Alteration

**Customize Alteration** lets you define your own alterations that appear on the **Alterations** menu.

When you choose **Customize Alteration** the Customize Alteration dialog appears:



### Saved Alterations

This list shows the alterations that have already been defined. The first four entries are the built-in alterations, followed by the custom alterations you have created. When performing a customization other than creating a new alteration, select the name of the alteration you want to affect.

### Customization

Choose one of the five customization actions:

- **Update** redefines an existing alteration.
- **New** creates a new alteration.

For both **Update** and **New**, you must set up the scale, position, slant and rotation you want to use before you choose **Customize Alteration**.

- **Rename** changes the name of an existing alteration.
- **Ctrl+Key** assigns a keyboard shortcut to any existing alteration. (You can also assign a keyboard shortcut while creating or renaming an alteration.)

You can use the Ctrl key in combination with any of the numbers 0-9 as keyboard shortcuts.

- **Delete** removes a custom alteration.

You cannot remove a built-in alteration. However, if you select a built-in alteration from the **Saved Alterations** list the menu item changes to **Reset**, and you can reset the selected built-in alteration to its default definition.

---

### **Name**

Enter the name of an alteration that you are creating or renaming.

### **Ctrl+Key**

Enter a number from 0 to 9 for use as a keyboard shortcut (in conjunction with the Ctrl key) for the alteration.

## **Alterations menu — Alter Character(s)**

**Alter Character(s)** opens an Alter Character window for the character selected in a keyboard window (or the first selected character, if several are selected).

You can also open an Alter Character window by selecting a keycap and pressing **Enter**, or by double-clicking on a keycap.

## **Alterations menu — Previous Character (Ctrl+left arrow)**

## **Alterations menu — Next Character (Ctrl+right arrow)**

**Previous Character** and **Next Character** change the character displayed in an Alter Character window, by switching to a different character in the font.

Switching to another character is a quick way to get the effect of closing the Alter Character window and opening another one for a different character.

- If there are no characters selected in the font's keyboard window, **Previous Character** and **Next Character** switch to the previous or next character in the font, in alphabetical order according to the character name.
- If there are characters selected in the keyboard window, **Previous Character** and **Next Character** switch to the previous or next character in the selection.

You can also switch to another character by simply typing the character you want (provided that there is no active text box in the Alter Character window).

If you accidentally switch characters, you can return to the original character by using **Edit:Undo**.

---

## Window menu — Black and White

**Black and White** changes the way FontMonger displays keyboard and Alter Character windows, if you have a color or gray-scale screen.

By default, FontMonger uses color and gray levels to enhance the appearance of these windows.

If your screen does not provide enough contrast between the dark and light colors, keycaps and other window elements may be hard to read.

Choose **Black and White** to force FontMonger to use high-contrast black and white images in the keyboard and Alter Character windows.

## Window menu — Cascade

**Cascade** rearranges all the keyboard and Alter Character windows in a staggered or “cascading” pattern of overlapping windows.

This is a standard Windows window-management function.

## Window menu — Tile

**Tile** rearranges all the keyboard and Alter Character windows in a grid-like arrangement of non-overlapping windows.

This is a standard Windows window-management function.

## Window menu — Window list

The names of all keyboard and Alter Character windows are shown at the bottom of the Window menu. You can activate any window, bringing it in front of all other FontMonger windows, by choosing its name from the menu.

This is a standard Windows window-management function.

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## **Help menu — Contents**

**Contents** displays a help window that contains a list of the main topics for which you can get help within FontMonger.

The help window is controlled by the standard Windows Help application, and so has its own menus. Choose Help:How to Use Help for more information about using the Help application.

## **Help menu — Search for Help On**

**Search for Help On** also displays a help window, and also allows you to immediately start searching for help topics that contain specific key words.

## **Help menu — How to Use Help**

**How to Use Help** explains how to use the Windows Help application to get help about FontMonger.

## **Help menu — About FontMonger**

**About FontMonger** displays a dialog that shows the version of FontMonger that you are running.

Before you contact Ares Customer Support with questions about FontMonger you should make a note of the version number you are using.

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## **Appendix A. Font Vendors**

**Adobe Systems, Inc.**  
1585 Charleston Road  
Mountain View, CA 94039  
800-833-6687

**Agfa Division of Miles, Inc.**  
90 Industrial Way  
Wilmington, MA 01887  
800-424-TYPE

**Bitstream, Inc.**  
Athenaeum House  
215 First Street  
Cambridge, MA 02142  
800-237-3335

**Casady & Greene, Inc.**  
22734 Portola Drive  
Salinas, CA 93908-1119  
800-359-4920

**Digital Typeface Corp.**  
9965 West 69th Street  
Eden Prairie, MN 55344  
800-947-8880

**Font Haus, Inc.**  
15 Percy Avenue  
Norwalk, CT 06850  
800-942-9110

**Headliners International**  
720 White Plains Road  
Scarsdale, NY 10583  
800-346-8815

**International Digital Fonts**  
1431 6th Street Northwest  
Calgary, Alberta T2M 3E7  
Canada  
403-284-2288

**ImageClub Typeface Library**  
102 11th Street SE, #5  
Calgary, Alberta T2G 3G2  
Canada  
800-661-9410

**Lanston Type Co. Ltd**  
Giampa Textware Corp.  
1340 East Perder Street  
Vancouver, BC V5L 1V8  
Canada  
800-663-8760

**Letraset**  
40 Eisenhower Drive  
Paramus, NJ 07653  
800-343-TYPE

**Linotype-Hell Company**  
425 Oser Avenue  
Hauppauge, NY 11788  
800-633-1900

**Monotype Typography**  
Suite 504  
53 West Jackson Boulevard  
Chicago, IL 60604  
800-666-6897

**Precision Type**  
47 Mall Drive  
Commack, NY 11725  
800-248-3668

**The Font Company**  
7850 East Evans Road, Suite 111  
Scottsdale, AZ 85260  
800-442-FONT

**The Font Shop**  
800-36FONTS

**The Stone Type Foundry**  
644 Emerson Street, Suite 10  
Palo Alto, CA 94301  
415-324-1870

**Treacyfaces, Inc.**  
111 Sibley Avenue  
Ardmore, PA 19003  
215-896-0860



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## Appendix B. Customer Support

Ares Software Corp. provides telephone technical support for FontMonger between 8:30am and 5:30pm Pacific Time, Monday through Friday.

The technical support phone number is **(415) 578-9090**.

### Before calling Customer Support

When you install FontMonger you should complete the information on this and the following page. If you call customer support you will need all the following information:

FontMonger serial number FW- 17513  
*Your serial number is on the FontMonger Program Disk.*

#### Your computer system

Manufacturer \_\_\_\_\_

Model number \_\_\_\_\_

Total RAM \_\_\_\_\_

Total expanded/expanded memory \_\_\_\_\_

Available disk space \_\_\_\_\_

Display type \_\_\_\_\_

Is your computer on a network? \_\_\_\_\_

#### Your printer

Manufacturer \_\_\_\_\_

Model number \_\_\_\_\_

Memory capacity \_\_\_\_\_

Is your printer on a network? \_\_\_\_\_

#### Software

Version of DOS \_\_\_\_\_

Version of Windows \_\_\_\_\_

Standard or Enhanced mode? \_\_\_\_\_



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Version numbers of applications for which you are  
converting/modifying fonts.

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Font Vendor(s)

Font format(s)

<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
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## **Ares Software Corporation**

P.O. Box 4667  
Foster City, CA 94404-4667

Voice: (415) 578-9090

Fax: (415) 378-8999

America Online: Ares SW

AppleLink: Ares

CompuServe: 70253,3164

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# Index

- About FontMonger (Help menu) 168
- Adobe Font Foundry 58
- Adobe Illustrator files 80, 88
- Adobe Type Manager 58
- advance width 96, 101
- AFM files 58
- AI files 80, 88
- Alter Character window 21, 93
- Alter Character(s) (Alterations menu)
  - 166
- alterations 23
  - built-in 20, 75, 95
  - components 109
  - customizing 24, 165
  - multiple characters 112
  - Normal 95
  - typing values 97
- anchor 129
- Apple File Exchange 60
- arrow tool 95, 96, 122
- ascent 84
- batch 47, 141
- Black and White (Window menu) 167
- bold 83
- Build Font (File menu) 147
- Build Font dialog 86, 147
- building font files 14, 86, 147
- built-in alterations 20, 75, 95
- buttons
  - Composite Character 22, 94, 107, 110
  - Diagonal Fraction 22, 94, 106, 110
  - Horizontal Fraction 22, 94, 107, 110
  - Normal Character 22, 94, 110
  - Outline Editing 22, 94
- Cascade (Window menu) 167
- Character Chart (Edit menu) 158
- character chart view 19, 70, 158
  - printing 88
- character display area 94
  - scrolling 105
  - toggleing scale 105
- character outlines
  - editing 117
  - formation rules 136
- character type buttons 22, 94
- characters
  - assigning to keyboard 77
  - deleting from font 77
  - deselecting 73
  - exporting 149
  - non-keyboardable 111
  - rearranging 20
  - removing from keyboard 77
  - rotating 96
  - scaling 96
  - selecting 20
  - slanting 96
  - switching 112
- Choose Character (Edit menu) 156
- Choose Character dialog 78, 111, 156
- Close (File menu) 139
- components 107, 109
- Composite Character button 94
- composite characters 107
  - changing to normal character 110
  - editing 108
- compressed 83
- condensed 83
- construction lines
  - advance width 95
  - baseline 94
  - character origin 95
- Contents (Help menu) 168
- context characters 100
- Convert Batch (File menu) 141
- Convert Batch dialog 48, 142
- converting fonts 15, 47, 52, 146
- copy 20, 76, 123, 153
- Copy (Edit menu) 153
- copyright notice 85
- corner joint 119
  - changing to smooth joint 126
- creating fonts 78
- current point 131
- custom alterations 113
  - creating 113
  - deleting 115
  - keyboard shortcuts 116
  - renaming 115
  - resetting 115
  - updating 114

- 
- Customize Alteration (Alterations menu) 164
  - Customize Alterations dialog 114
  - Customize Range (Edit menu) 154
  - Customize Selection Range dialog 90, 155
  - cut 20, 76, 123, 152
  - Cut (Edit menu) 152
  - delete 20, 123, 153
  - Delete (Edit menu) 153
  - descent 84
  - Diagonal Fraction button 94
  - diagonal fractions 106
  - display area 94
  - document files 13
  - dragging
    - constraints 124, 133
    - in ruler units 127
    - joints 124
    - open ends 125
    - segments 124
    - shape handles 125
    - using arrow keys 127
  - Encapsulated PostScript 80, 88
  - encapsulation 85
  - EPS files 80, 88
  - Exit (File menu) 152
  - expanded 83
  - Export (File menu) 149
  - Export Character dialog 149, 150
  - Export Character(s) dialog 88
  - exporting characters 149
  - exporting graphics 88
  - extended 83
  - families 82
  - family metrics 84
  - family relationship 83
  - finding fonts 15, 50, 144
  - font classification 85
  - font families 82
  - font files 14
  - font formats 53
  - font information 82, 159
  - font protection 85
  - font width 83
  - FontMonger document files 13
  - fonts
    - adding to a batch 143
    - adding to batch 52
    - building 14, 147
    - combining characters 76
    - converting 15, 47, 52, 141, 146
    - creating 16, 78
    - creating a batch 48
    - decorative 85
    - finding 144
    - opening 14, 16, 63, 137
    - rearranging characters 76
    - reconverting 49
    - reverting 141
    - sans-serif 85
    - saving 16, 65, 140
    - serif 85
  - Fonts control panel 57
  - fractions 106
    - changing separator 110
    - changing to composite character 110
    - changing type 107
    - diagonal 106
    - editing 108
    - horizontal 107
  - FRF files 66
  - FRT files 66
  - gizmo tool 129
  - graphics 79
    - exporting 88
  - graphics file formats 80
  - guide lines 95, 99
    - snapping 100
  - handles 23, 97
  - Horizontal Fraction button 94
  - horizontal fractions 107
  - How to Use Help (Help menu) 168
  - Import (File menu) 148
  - Import Character dialog 148
  - Import dialog 79
  - importing graphics 79, 148
  - INF files 58
  - Inferior (Alterations menu) 164
  - installing Nimbus Q fonts
    - in GeoWorks Ensemble 59
    - in SoftType 59
  - installing NXT fonts 60
  - installing PostScript fonts 58, 59

---

installing TrueType fonts 57  
italics 83  
joints 119  
    dragging 124  
    moving numerically 128  
Keyboard Layout (Options menu) 157  
keyboard layout view 17, 67, 157  
    printing 87  
keyboard shortcut 116  
keyboard windows 17, 63  
light 83  
line gap 84  
Macintosh fonts 60  
Macintosh resource files 60  
magnifier tool 95, 104  
Merge Outlines (Edit menu) 156  
merging fonts 76  
merging outlines 134  
miniature keyboards 73  
modifier keys 68  
MRF files 61  
New (File menu) 137  
new fonts 78, 137  
next character 113  
Next Character (Alterations menu) 166  
NeXT fonts 59, 60  
Nimbus Q fonts 59  
non-keyboardable characters 111  
Normal (Alterations menu) 164  
Normal alteration 95  
Normal Character button 94  
NXT files 59  
Open (File menu) 137  
open ends  
    dragging 125  
Open Font dialog 63, 138  
open path 119  
opening an Alter Character window 93  
opening fonts 16  
opening multiple fonts 65  
outline editing  
    beginning 120  
    ending 121  
Outline Editing button 94  
outlines 117  
    rotating 131  
    scaling 130  
    slanting 130  
    paste 20, 76, 123, 153  
Paste (Edit menu) 153  
paths 118  
    adding joints 128  
    closing 132, 134  
    removing joints 128  
    splitting 129  
    starting new path 134  
pen tool 131  
PFB files 58  
PFM files 58  
PostScript fonts 58  
preparing graphics for importing 80  
previous character 113  
Previous Character (Alterations menu)  
    166  
Print (File menu) 151  
Print Setup (File menu) 151  
printing  
    character chart 88  
    keyboard layout 87  
read-only encapsulation 85  
readouts 23, 95  
    Components 108, 111, 112  
    Context 100  
    Current X 128  
    Current Y 128  
    Fraction Bottom 106, 111, 112  
    Fraction Top 106, 111, 112  
    Height 97, 98  
    Horizontal 96, 128  
    Rotate 97  
    Slant 97  
    typing values 97  
    Vertical 96, 98, 128  
    Width 97  
redo 24, 102  
Redo (Edit menu) 152  
Remove Character(s) (Edit menu) 156  
removing overlaps 134  
removing TrueType fonts 57  
resizing character display area 103  
Revert to Saved (File menu) 141  
reverting fonts 67  
rulers 94  
sans-serif 85  
Save (File menu) 140  
Save As (File menu) 140

---

- Save As dialog 65, 140
- scissors tool 128
- Search for Help On (Help menu) 168
- segments 119
  - converting to straight line 127
  - dragging 124
  - drawing curves 132, 134
  - drawing straight lines 132, 133
  - moving numerically 128
- Select 0-9 (Edit menu) 154
- Select a-z (Edit menu) 154
- Select A-Z (Edit menu) 154
- Select All (Edit menu) 154
- selecting
  - segments 121
  - selection range 154
- selecting characters
  - by typing 72
  - select all 72
  - selection ranges 72
  - with the mouse 71
- selecting segments
  - arrow tool 122
  - changing the selection 123
  - selection rectangle 122
- selection range 90
  - custom 154
  - deleting 91
  - keyboard shortcut 91
  - redefining 91
  - renaming 91
- selection ranges
  - customizing 155
- serifs 85
- Set Font Information (Options menu) 159
- Set Font Information dialog 82
- Set Font Protection (Options menu) 162
- Set Font Protection dialog 85
- shape handles 120
  - dragging 125
  - moving numerically 128
- Show System Font (Options menu) 158
- Slant (Alterations menu) 164
- Small Caps (Alterations menu) 164
- smooth joint
  - changing to corner joint 126
- smooth joints 119, 125
- Snap to Guide Lines (Options menu) 163
- special characters 111
- starburst 119
- stroke weight 83
- stylistic variations 83
- Superior (Alterations menu) 164
- system font 112, 158
- template files 66
- Tile (Window menu) 167
- toolbox 95
- tools
  - arrow 95, 96, 122
  - gizmo 129
  - magnifier 95, 104
  - pen 131
  - scissors 128
- transferring Macintosh fonts 60, 61
- transferring NeXT fonts 59, 60
- TrueType fonts 57
- typing alteration values 97
- undo 24, 102
- Undo (Edit menu) 152
- window list (Window menu) 167
- windows
  - Alter Character 21, 93
  - closing 66, 139
  - display options 69
  - keyboard 17, 63
- Windows Metafile 88
- zooming in 104
- zooming out 104

# ARES FontMonger™

For Converting, Enhancing and Modifying Typefaces.

FontMonger software converts fonts in any direction between PostScript® Type 1 (for use in Adobe Type Manager™), PostScript Type 3, Nimbus Q (for use in SoftType™ and Geoworks™ Ensemble), and TrueType™ (for use in Windows™ 3.1). FontMonger also converts Intellifont® fonts (from Agfa or Hewlett Packard) into any of the other formats. Converted fonts can be saved for IBM® PC and compatibles, Apple® Macintosh and NeXT® too!

FontMonger's proprietary hinting technology automatically adds hinting during the conversion process to insure the highest quality PostScript Type 1 fonts or TrueType fonts.

FontMonger even lets you modify character outlines. You can use FontMonger's built in drawing tools to make the modifications directly, or you can import EPS or Adobe Illustrator® files, so you can embed simple graphics created in your favorite drawing or illustration program directly into your font. If you prefer, you can export characters to your drawing program to add embellishments and special effects.

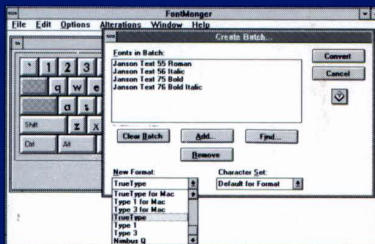
The type modification tools in FontMonger offer a unique range of capabilities including: access to unencoded characters, generation of superscript and subscript characters, creation of composite characters, and generation of slash and bar fractions.

FontMonger lets you merge characters from several fonts. Relocate characters on the keyboard to locations that make sense to you.

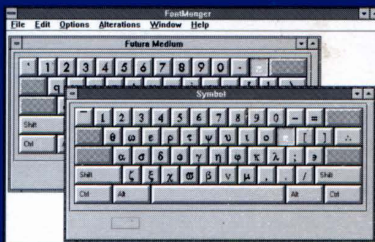
## System Requirements:

- Microsoft® Windows 3.0 or greater
- Intel® 286, 386, or 486 IBM PC or compatible
- 2 Megabytes of memory
- Hard disk and floppy drive
- Scalable outline fonts in TrueType, PostScript Type 1, PostScript Type 3, Intellifont, or Nimbus Q format

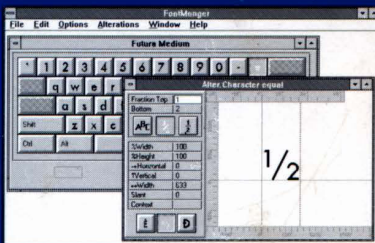
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*Batch convert between PostScript Type 1, PostScript Type 3, Nimbus Q, and TrueType in any direction or convert Intellifont fonts into any other format.*



*With Ares FontMonger you can combine several typefaces, remap keyboard characters or convert between formats.*



*Modify your existing typefaces into small caps, oblique characters, fractions, composite characters, superscripts and subscripts.*



Ares Software Corporation  
P.O. Box 4667  
Foster City, CA 94404-4667

**This product is  
for sale in the  
U.S.A. and  
Canada only.**