

**The ABC's of
METAMORPHOSIS PROFESSIONAL
A TUTORIAL**

Altsys Corporation

269 W. Renner Road
Richardson, Texas 75080 U.S.A.

(214) 680-2060

Technical Support: (214) 680-2093

MCI Mail: ALTSYS
Telex: 6502718914 MCI
FAX: (214) 680-0537
CompuServe: 76004,2071
AppleLink: D0590
America Online: Altsys

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INTRODUCING METAMORPHOSIS PROFESSIONAL...

Metamorphosis™ was the first product to allow you to convert your Type 3 PostScript® language typefaces into Type 1 (Adobe Type Manager™-compatible) fonts and also convert your Type 1's into Type 3's. Metamorphosis Professional version 2.0 expands those original capabilities to provide you with all the features you need to keep up with the advances of today's exciting new font technologies.

With Metamorphosis Professional (or Meta Pro), you now have the ability to convert an entire character set of specific lines of text to PICT and EPS format for use on the Apple® Macintosh®. So now, instead of being limited by what you can do with your text in drawing programs like Canvas™ and MacDraw®, you can treat your type just like any other graphic image. Fill our characters with checks, stripes, dots, change their line sizes, and stretch and manipulate their outlines.

Meta Pro gives you the ability to convert your fonts into:

- PICT and EPS outline formats for use on the Macintosh;
- TrueType™ for the Macintosh or IBM-compatible personal computers (PCs);
- Type 1 PostScript for the Macintosh, for IBM-compatible PCs running ATM under Windows 3.0, and for the NeXT®;
- Type 3 PostScript for the Macintosh and the PC; and
- Fontographer® database files, which can be used in Fontographer to create custom type for the Macintosh, IBM-compatible PCs using Windows running ATM, and NeXT computers.

How to use this demonstration manual...

One of the best ways to discover how a program works is to use it. This demonstration is designed to give you a quick overview of Metamorphosis Professional's concepts and capabilities. The demonstration program functions in the same manner as the actual Metamorphosis application. It lets you convert and use your own fonts almost immediately while introducing you to a number of its major features. However, the only characters that will convert are the numbers 0-9 and the uppercase consonants. You should read this manual while sitting in front of your computer so you can follow along with the examples.

Before you begin...

Before you can actually start using Metamorphosis Professional, you need to check the following items:

You must have a Macintosh Plus (or higher) computer with at least 1 Megabyte of RAM. Meta Pro converts PostScript fonts directly from your computer, as well as from any PostScript printer where fonts may be installed. For the latter, you will need a PostScript printer with an Adobe PostScript interpreter, such as the Apple LaserWriter. Meta Pro can be run on a single drive system (with some inconvenience), a two drive system, or a system with a hard disk (recommended).

The System file on your disk should be version 6.0.4 or later, and the Finder should be version 6.1.4 or later.

You should immediately make a copy of the Metamorphosis Professional Demo master disk and run only from the copy. Copies of the disk may be made using the Finder or any backup program.

Getting Started...

When you're ready to begin, follow these steps to install Metamorphosis Professional:

- If you have a hard disk, create a file folder on it by choosing "New Folder" from the File menu.
- Change the name of the "Empty Folder" to a name like "Metamorphosis folder" or some other name that makes sense to you.

Note: if you are running System 7, this folder will be named something different, like "Untitled folder."
- Drag the Metamorphosis application from its diskette into the new folder you just created.

That's all there is to it! You've just installed Metamorphosis Professional.

The first time you open *The ABC's of Metamorphosis Professional*, the "Convert text" mode will be checked in the main window. From then on, whenever you open this tutorial, the mode you last used is the mode that will be active. This is due to the fact that Metamorphosis Professional automatically places a preferences file in your System Folder. This file is named "Metamorphosis Prefs" and is responsible for saving information about Metamorphosis Professional's conversion modes. With the preferences file in your System Folder, it is possible to open Meta Pro with the same settings a mode you last used. Meta Pro also remembers your output formats.

The first conversion mode we will discuss is "Convert text." If you want to begin by converting fonts to other font formats, go directly to page 11.

USING METAMORPHOSIS PROFESSIONAL

To start Meta Pro:

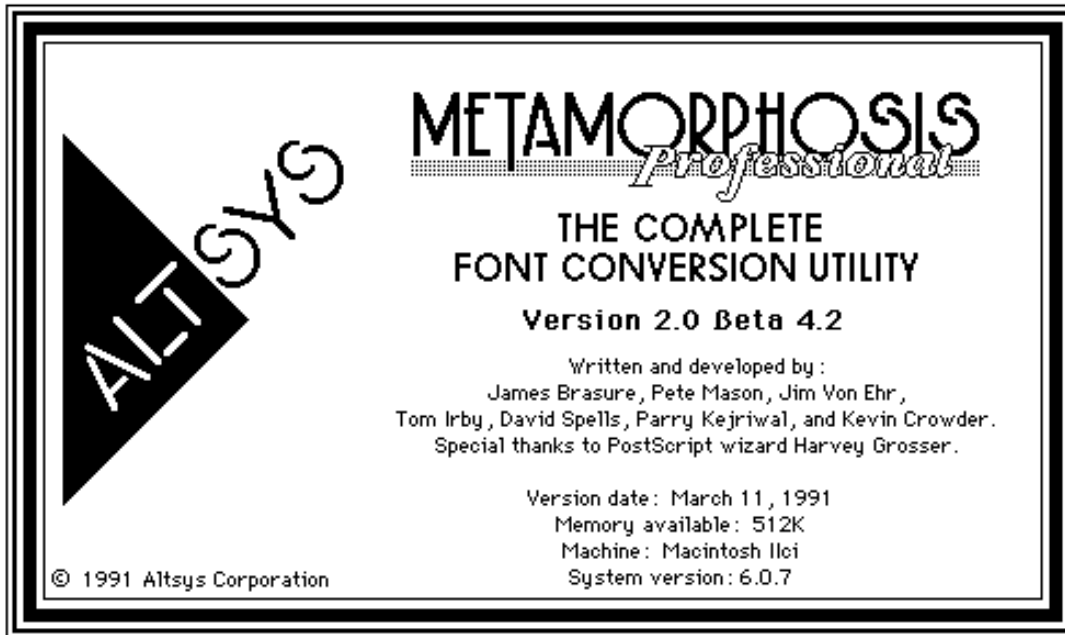
- Click on the Meta Pro icon.



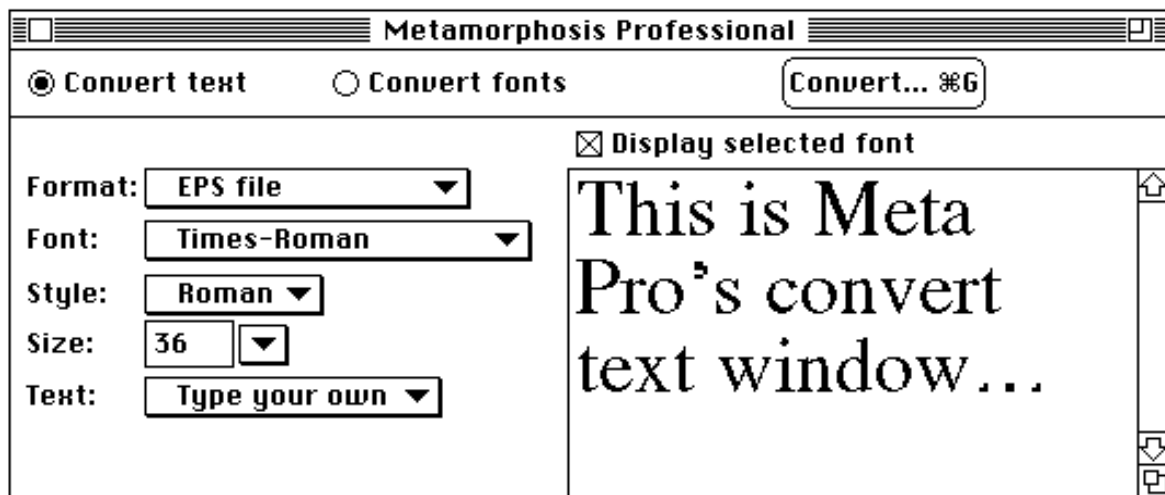
Meta Pro Demo

- Go to the File menu and choose "Open."

Metamorphosis Professional displays an opening screen that contains copyright and version information.



After a brief pause, Metamorphosis Professional's main window appears. The main window is where you choose all your conversion options.



You can move the main window by clicking on its title bar with the selection pointer and dragging it.

CONVERT TEXT

This mode allows you to convert to paths (or outlines) whatever text appears in the text edit box. The most important aspect of this mode is that you have the ability to type in the text you want to convert.

Five options are provided in the "Convert text" dialog: Format, Font, Style, Size, and Text. You can change any or all of these options as you use the program. There are six basic steps in the "Convert text" mode.

1. Select (or type in) the text you wish to convert.
2. Choose the format you wish to convert to.

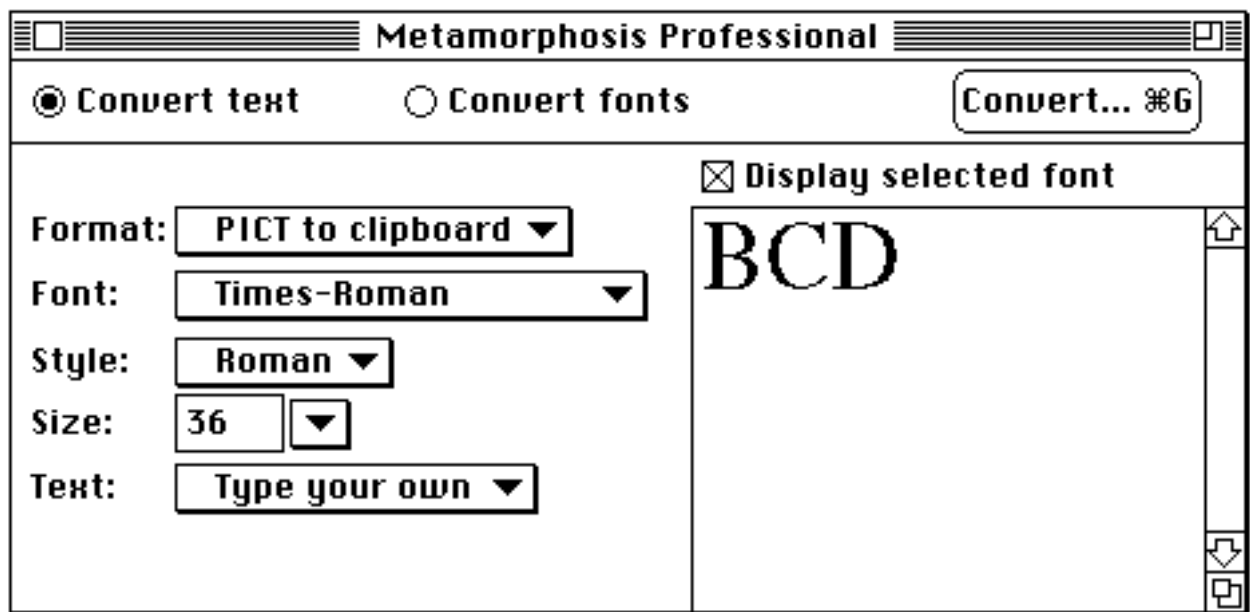
3. Choose your font.
4. Choose your font style.
5. Choose your font size.
6. Convert.

Converting text into PICT outlines is so simple that we will show how to convert a phrase into a PICT outline and “Paste” it into MacDraw on the next four pages. If you don’t want to participate in this exercise, you can proceed directly to page 11.

1. Select (or type) the text you wish to convert.

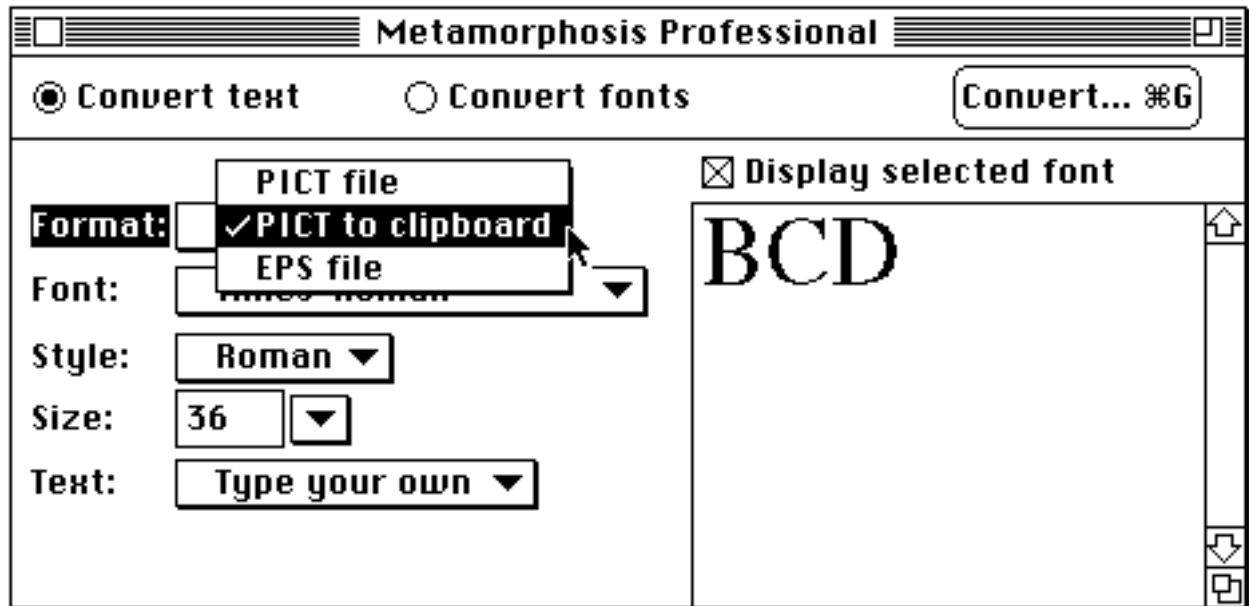
- Type “BCD” in the text edit box on the right.

You can type anything you want in the text edit box. Remember though that the only characters that will convert (in this demonstration) are the numbers 0-9 and the uppercase consonants.



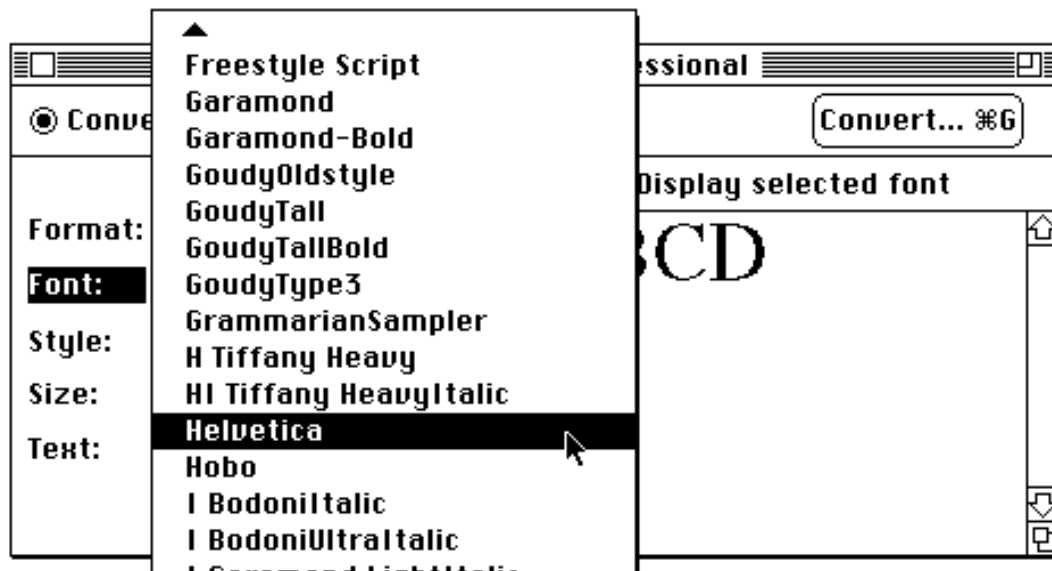
2. Choose the format you wish to convert to.

- Drag through the “Format:” menu to select the format.



3. Choose your font.

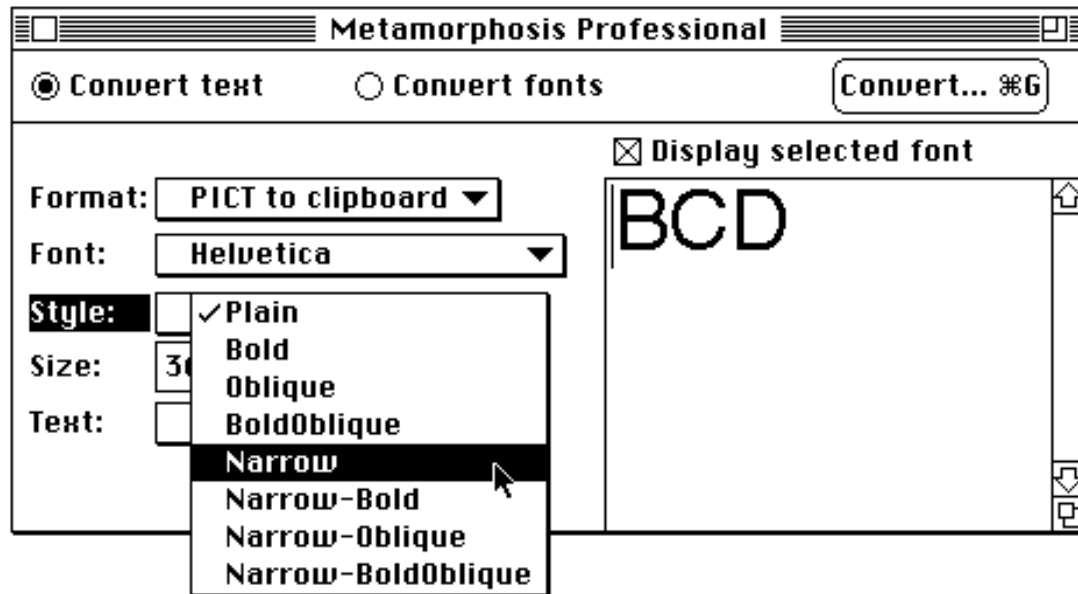
- Drag through the "Font:" menu to select another font.



4. Choose your font style.

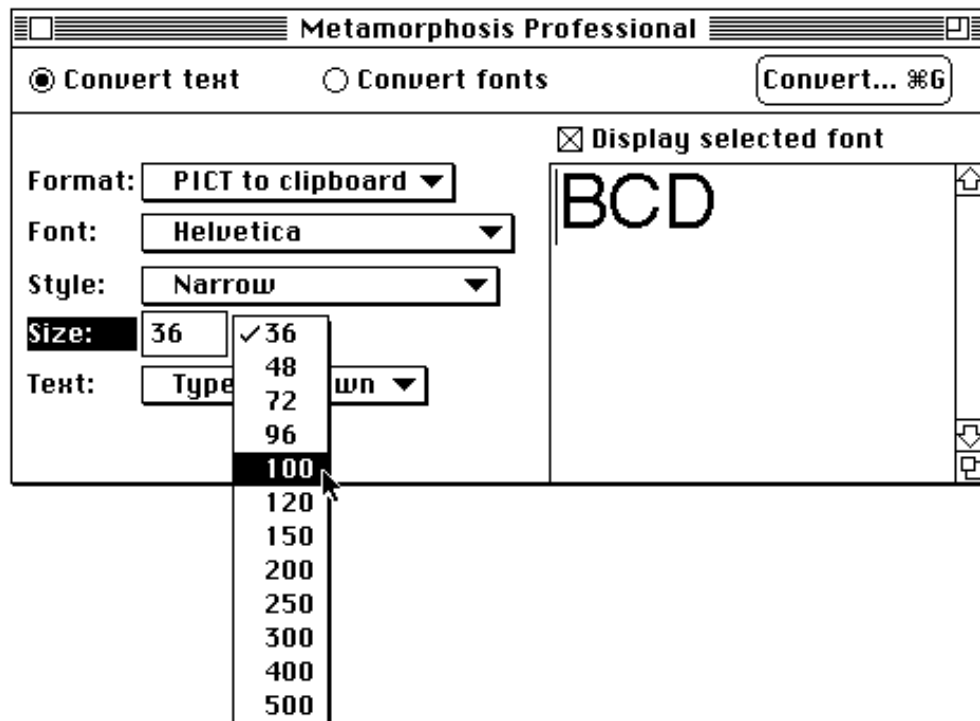
- Drag through the "Style:" menu to select another style.

Notice that the font automatically changes in the text edit box .



5. Choose your font size.

- Drag through the "Size:" menu to select another size.

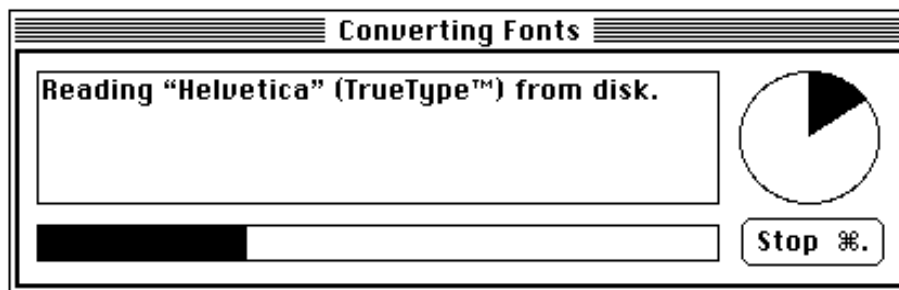


6. Convert.

- Press the "Convert" button.



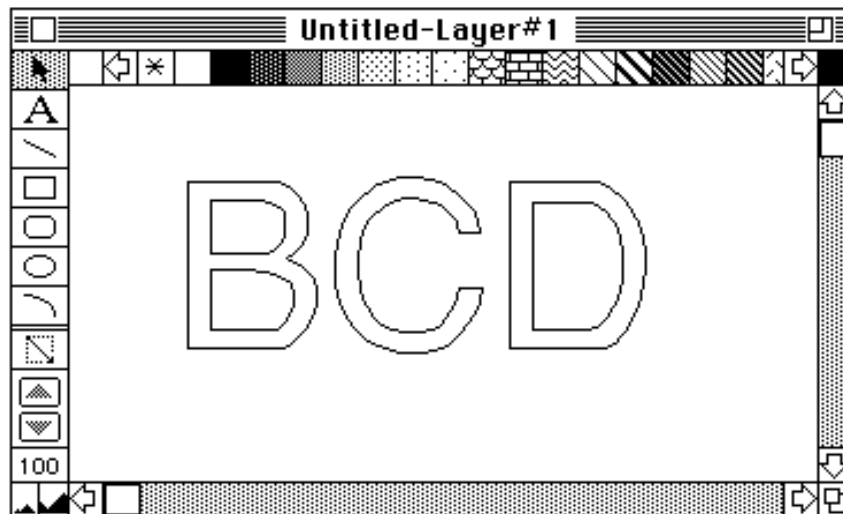
A dialog box shows which font is being generated. Its progress bar shows how the font conversion is progressing. The pie graph on the right shows the portion of time that has elapsed in the overall font conversion process.



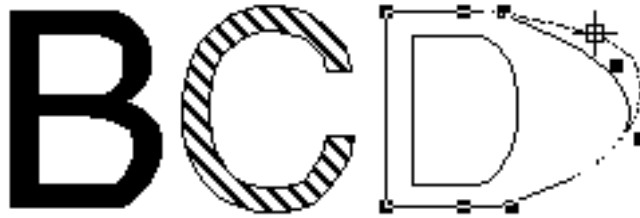
When the font is finished converting, since Meta Pro automatically places your PICT into the clipboard, you can paste your PICT file directly into Mac Draw (or another drawing program).

Note: If you are running under MultiFinder or System 7, you can have Meta Pro and your drawing program open at the same time.

- "Paste" your newly converted PICT file into your drawing program. Our example is in MacDraw II.



- Select one or several characters, fill them with patterns, change their line sizes, or use the “Reshape” tool to drag the points.



You see how simple that was? Go back and experiment with the settings, the sky's the limit!

Other text formats

There are five other options in the text popup menu.

All characters

The “All characters” option is provided for instances where you want to convert all 256 characters in the font.

Note: Brackets or square at the beginning of the character set represent characters (control characters, for example) that don't contain an image.

First 128 characters

The “First 128 characters” option is provided for instances where you want to generate fonts containing characters 0-127 (punctuation characters, the standard upper and lowercase characters, and the numbers 0 through 9).

Uppercase

The “Uppercase” option is provided for instances where you want to generate only the uppercase characters in your typeface. When you select this option, all the uppercase characters in that particular typeface are displayed in the text edit box.

Lowercase

The “Lowercase” option is provided to generate only the lowercase characters in your typeface. When you select this option, all the lowercase characters in that particular typeface are displayed in the text edit box.

From a file...

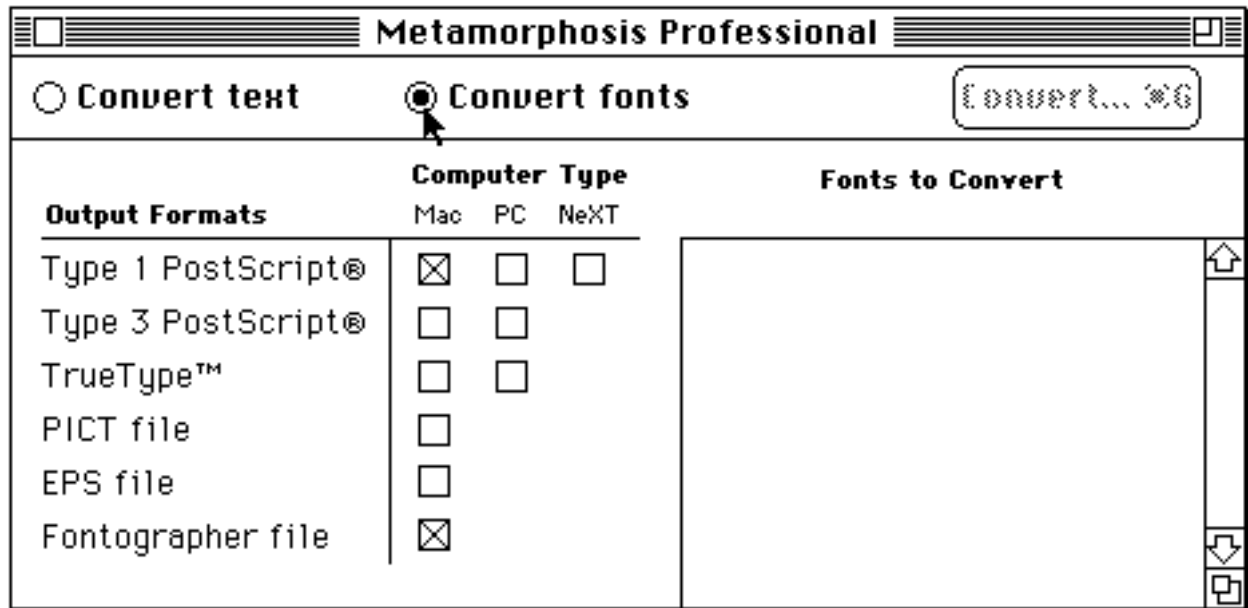
The “From a file...” option is provided to allow you to import a “Text only” file from applications such as Microsoft® Word, MacWrite®, and Teach Text.

You can experiment with these to see how each choice affects the text in the text edit box. Remember that although you will be able to see all the characters (in each selection), the only characters that you will be able to generate with this tutorial are the numbers 0 through 9 and the uppercase consonants. You will find that Metamorphosis Professional provides a great way to preview your typeface; kind of like a deluxe Key Caps, so to

speak!

CONVERT FONTS

To change to the "Convert fonts" mode, simply click on the "Convert font" Radio button.



Before you can convert fonts, you must first select your font(s). You can select as many fonts as you like. For the purposes of this demonstration, we recommend that you select only one or two. The time of the generation process will vary according to the number of fonts and options you select, and whether you are converting from the printer or from your hard disk.

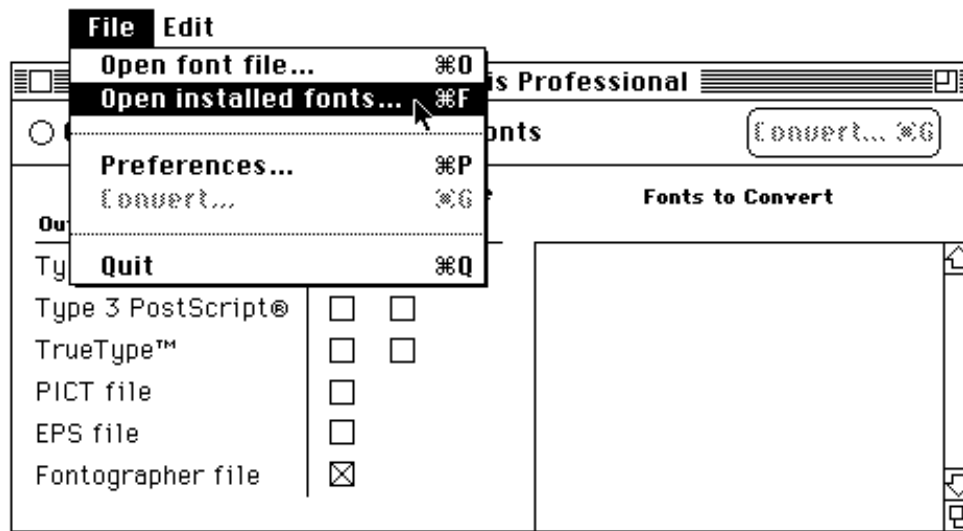
Which fonts do you select?

After you select your font's name from the font list, Meta Pro will locate the selected PostScript font files, retrieve the outlines, and generate the typeface in the formats of choice. Since Metamorphosis uses the outlines from the PostScript font file, you will not be able to generate fonts for which you have no corresponding PostScript file. In instances where PostScript fonts (for example, Times) are built into the printer or are on the printer's hard disk, having the PostScript file is not necessary since Metamorphosis Professional can extract the outlines from the printer.

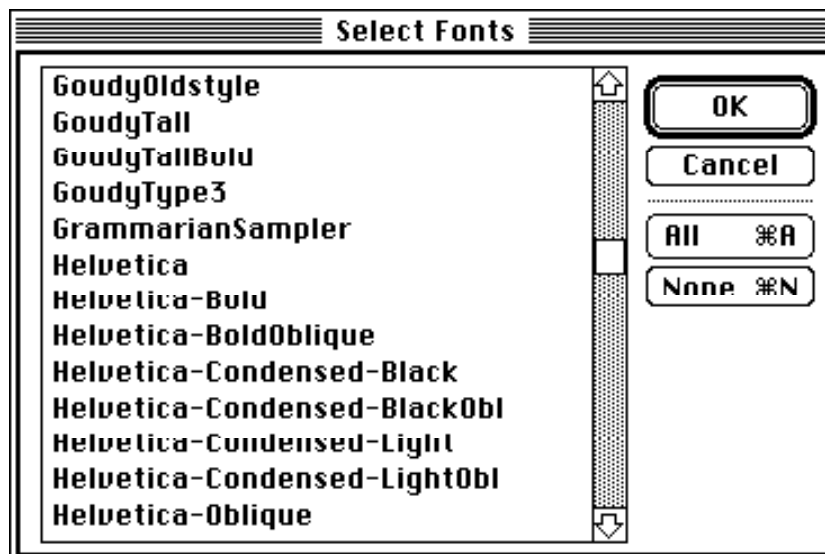
You can add Fontographer 3.0 and later database files to the font conversion list with the "Open font file..." item in the File menu. Even if you use Suitcase II® or Master Juggler® (or similar programs), you can open all fonts with the "Open installed fonts..." item in the File menu.

To open an installed font:

- Choose "Open installed fonts..." from the File menu.



This presents the “Select font” dialog box which allows you to choose any font installed in your System file, or fonts installed with Suitcase II, Master Juggler, or programs like them.



All your installed PostScript fonts will be listed in the “Select Fonts” dialog. You have the option of selecting one, several, or all fonts from this dialog. You can also choose “None.” The font name(s) you select will appear in the Meta Pro “Fonts to Convert” list after you click “OK.” Clicking on a selected font deselects it.

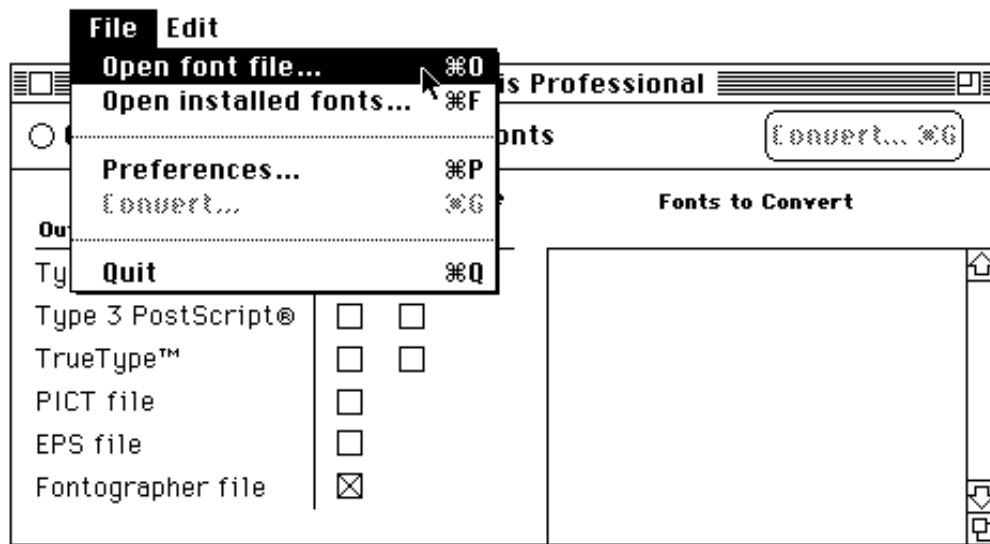
Note: Your original fonts will not be affected by this process since you are merely accessing that font's information without making any changes.

This section describes how to select fonts which are stored in a folder.

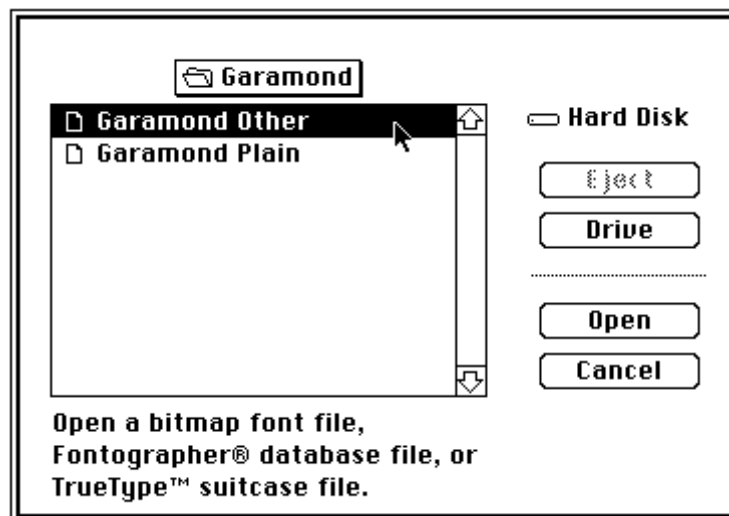
To select a font file:

You may have your fonts stored in specific folders or locations different from those installed in your System file. In this case, you would follow this procedure to open a font file:

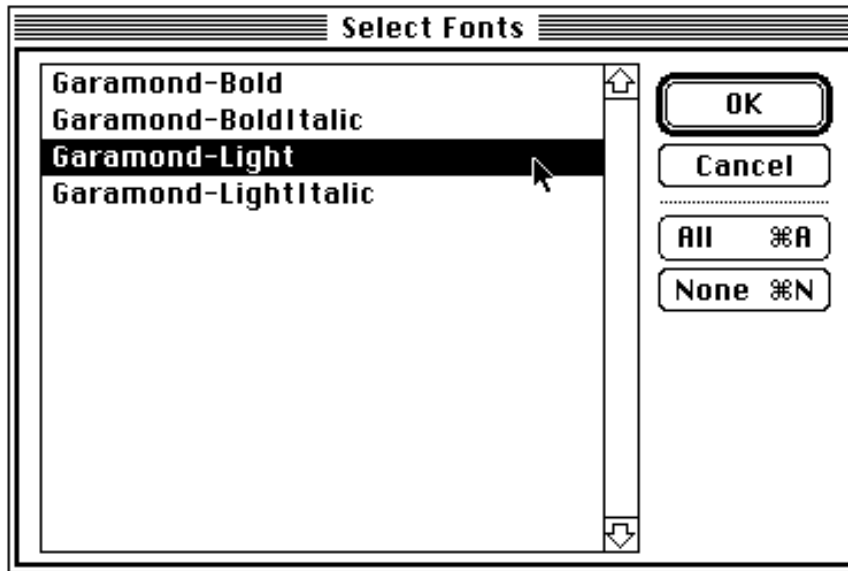
- Choose “Open font file...” from the File menu.



This presents the standard file selection dialog, which allows you to choose a bitmap font file, TrueType suitcase file, or a Fontographer database file from the folder in which it is stored. The file selection dialog works in the standard fashion, so you can change drives, eject disks, open a file, or cancel.



Metamorphosis Professional will list only the associated PostScript or TrueType fonts in the file you open. You have the option of selecting one, several, or all of the fonts from the "Select Fonts" dialog.

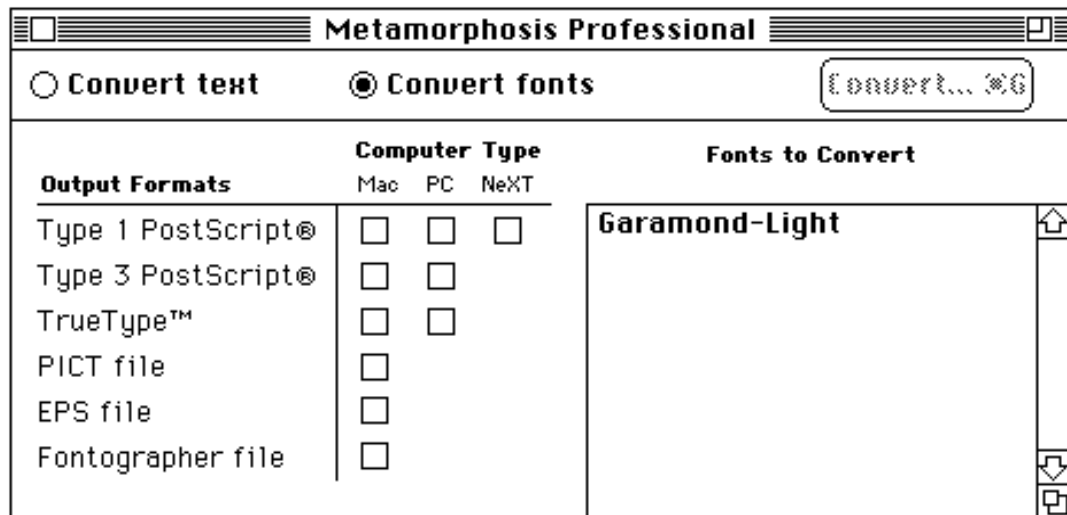


- Choose the font you wish to open by clicking on its name.

You can select more than one font simply by holding down the Shift key while you click on each font. You can select all of the fonts by clicking the “All” button. Clicking on a selected font deselects it. Clicking on the “None” button deselects all your fonts.

- When you have finished selecting fonts, click “OK.”

The font name(s) you select will then appear in Meta Pro’s “Fonts to Convert” list.



Note: If the “Select Fonts” dialog list is empty, you do not have any PostScript font files.

To remove fonts:

If you have selected your fonts for conversion and you decide you do not wish to generate a particular font, you may remove it from the font conversion list. Removing fonts from the font conversion list is very simple:

- Click on the font name to select it.

- Choose “Clear” from the Edit menu or press either the “delete” or “clear” key.

You can continue adding fonts from other folders by repeating the previous procedures or you can begin generating your fonts.

Note: Removing fonts from the font conversion list will not affect your currently saved or installed fonts.

OUTPUT FORMATS

Now that your main window contains a complete font conversion list, the next step is to assign the font generation options.

Ten output formats are provided in the “Convert fonts” mode. You can select any of these formats. However, if you are converting one font format to another, you must select either a Type 1 or a Type 3 PostScript font format, since Metamorphosis Professional will not generate both formats at the same time.

Output Formats	Computer Type		
	Mac	PC	NeXT
Type 1 PostScript®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type 3 PostScript®	<input type="checkbox"/>	<input type="checkbox"/>	
TrueType™	<input type="checkbox"/>	<input type="checkbox"/>	
PICT file	<input type="checkbox"/>		
EPS file	<input type="checkbox"/>		
Fontographer file	<input type="checkbox"/>		

To select an Output Format:

- Click on the option’s checkbox.
- An “X” indicates that the option is selected.

To deselect an Output Format:

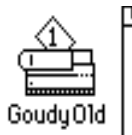
- Click on the checked option box to deselect it.

Type 1 PostScript

Mac

Meta Pro generates an ATM-compatible standard Macintosh Type 1 PostScript language font file with hints. This font file can be used for both automatically downloadable fonts or fonts that are to be downloaded to the printer’s hard disk.

The converted Type 1 GoudyOldstyle font will be named “GoudyOld” and look like the icon below.



Whenever you generate fonts using the Type 1 or Type 3 PostScript option, Meta Pro automatically generates an “AFM” (Adobe Font Metrics) file. Certain text handling programs use this file. Install it only if specified by applications which require it.



GoudyOldstyle.AFM

PC

Meta Pro generates standard PC Type 1 PostScript language fonts which are compatible with Adobe Type Manager (ATM) running under Windows 3.0 on IBM-compatible personal computers (PCs). Meta Pro automatically generates an AFM file and a PFM file which are used on the PC. All PC files adhere to font naming conventions.

A converted GoudyOldstyle Type 1 PC font will generate two files named “GOO____.PFB” and “GOO____.PFM.” If you have Apple File Exchange on your disk they will look like the icons below.



GOO____.PFB GOO____.PFM

If you don't have Apple File Exchange on your disk, your icon will look like the generic blank page icon below.



GOO____.PFB

The “PFB” at the end of the font name stands for Printer Font Binary and represents a PC Type 1 font. The “PFM” at the end of the font name stands for Printer Font Metrics and represents a PC Type 1 font metrics file.

Meta Pro automatically generates an “AFM” file which (for GoudyOldstyle) is named “GOO____.AFM” and looks like the icon below.



GOO____.AFM

NeXT

Meta Pro generates a Type 1 PostScript font file that can be used on NeXT computers.

A converted Goudy Oldstyle Type 1 NeXT font will be named “GoudyOldstyle.NeXT” and look like the icon below.



GoudyOldstyle.NeXT

Meta Pro automatically generates an “AFM” file which is named and looks like the icon below.



GoudyOldstyle.afm

Type 3 PostScript font

This option is provided to generate Type 3 PostScript language fonts for the Macintosh and IBM-compatible PCs. Type 3 fonts can contain stroked and filled characters. They can be utilized by programs like Brøderbund TypeStyler and Quark Xpress and can also be useful for PostScript clone printers that don't understand Type 1.

Mac

Meta Pro generates a standard Macintosh Type 3 PostScript font.

A converted GoudyOldstyle Type 3 font will be named “GoudyOld” and look like the icon below.



GoudyOld

Meta Pro automatically generates an “AFM” file which is named and looks like the icon below.



GoudyOldstyle.AFM

Note: The Type 3 PostScript fonts Meta Pro generates will not be hinted. If you wish to apply hints, you can use Fontographer version 3.1, which can automatically apply PostScript hints for screen and printer fonts.

PC

Meta Pro generates a standard PC Type 3 PostScript language font. The PC file adheres to PC font naming conventions.

A converted GoudyOldstyle Type 3 PC font will have two files named “GOO____.PFA” and “GOO____.PFM.” If you have Apple File Exchange on your disk they will look like the icons below.

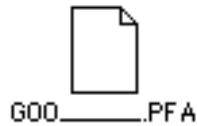


GOO____.PFA



GOO____.PFM

If you don't have Apple File Exchange on your disk, your icon will look like the generic blank page icon below.



The "PFA" at the end of the font name stands for Printer Font ASCII. This file contains only standard ASCII characters.

The "PFM" at the end of the font name stands for Printer Font Metrics.

Meta Pro automatically generates an "AFM" file which (for GoudyOldstyle) is named "GOO____.AFM" and looks like the icon below.



TrueType

This option is provided to generateType fonts for the Macintosh and IBM-compatible PCs.

Mac

Meta Pro generates a standard TrueType suitcase file which may contain all of the bitmaps in the original font. Bitmaps will only be included if this option is checked in the "Preferences" dialog. The "Preference" option allows you to control different aspects of the conversion process. For the puposes of this tutorial, it is not necessary to adjust any of the settings in the "Preferences" dialog. For more information about this option, refer to the Metamorphosis Professional *User's Guide*.

A converted GoudyOldstyle font will be named "GoudyOldstyle.suit" and will look like the icon below.



PC

Meta Pro generates a TrueType file which is compatible with versions of Windows which support TrueType. The "TTF" at the end of the font name stands for TrueType file.

A converted GoudyOldstyle font will be named "GOO____.TTF" and will look like the icon below.



PICT FILE

Mac

Meta Pro generates PICT format files for the whole font. For the purposes of this tutorial, you will only be able to generate the numbers 0-9 and the uppercase consonants. Meta Pro creates an object-oriented PICT that stores the points and paths of the characters for use in drawing programs. If you don't want to convert the whole font into a PICT file, you can use the "Convert text" mode to convert just a few characters.

Programs such as MacDraw and MacDraw II, Canvas, Claris CAD, DeskDraw, and Aldus FreeHand can read this file format directly for editing purposes. So now you can reshape or distort your characters, change the line size, or fill them with specific colors or patterns.

Note: PICT outlines are not always absolutely identical to their PostScript counterparts; there is a small amount of approximation involved in the conversion.

When you generate a PICT file, Meta Pro automatically creates a file name based on the font name you are converting. So if you are converting the font GoudyOldstyle, Meta Pro will choose the name "GoudyOldstyle.pict" which will look like the document icon below.



GoudyOldstyle.pict

Note: If you already have a PICT file named GoudyOldstyle.pict in the folder that you generate to, Meta Pro will name your new file "GoudyOldstyle.pict•" so that you don't overwrite (erase) the old file.

EPS format

Mac

This option is provided to generate Adobe Illustrator 1.1-style EPS (Encapsulated PostScript) format files. Programs such as Aldus FreeHand and Adobe Illustrator can read this file format directly for editing purposes.

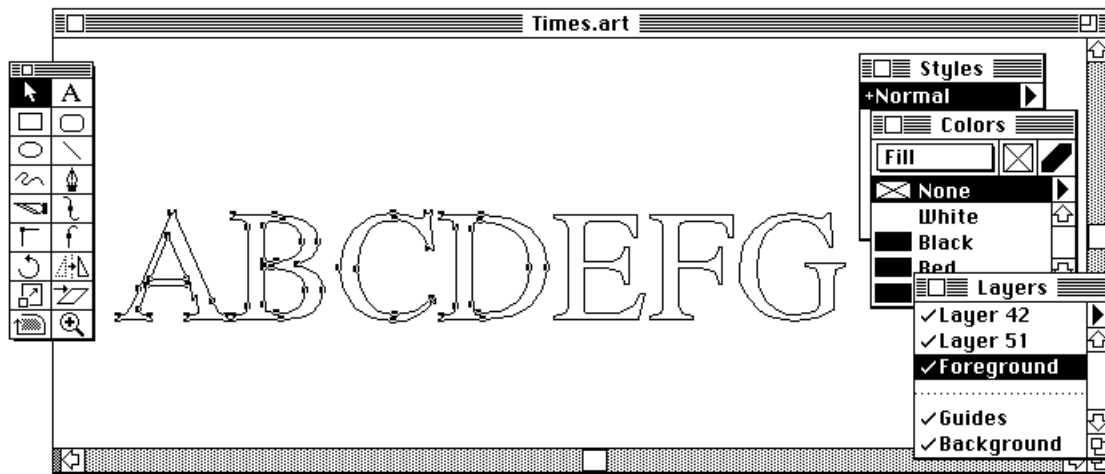
Once you open your EPS file, you can add or delete points, reshape or distort characters, change the stroke weight, or fill characters with a specific color or pattern. You can even alter the character's shape to create swash caps. If you don't want to convert the whole font into an EPS file, you can use the "Convert text" mode to convert just a few characters.

A converted GoudyOldstyle font will be named "GoudyOldstyle.art" and look like the icon below.

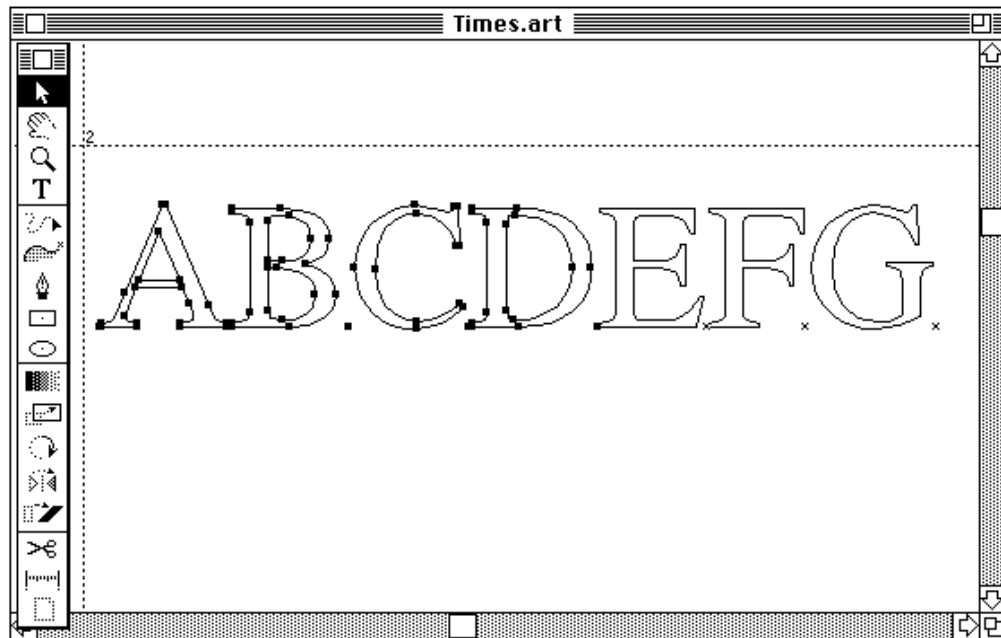


GoudyOldstyle.art

The illustration below shows a converted font that was generated in EPS format and then opened using Aldus FreeHand's "Open file..." item from the File menu. The letters "A" through "D" are selected. All the points and BCPs can be activated and are ready for use. All the functionality of FreeHand can be applied to your outlines.



The illustration below shows a converted font that was opened using Adobe Illustrator 88. The letters “A” through “D” are selected. The small “x”s that appear between the characters allow you to line up the letters to comply with their origin and width point markers.



Fontographer file

Mac

This option is provided to generate Fontographer database files that can be edited in Fontographer 3.2, Altsys' professional font creation program. By combining this option with Fontographer, you have the additional capability of customizing your own professional fonts.

A converted Goudy Oldstyle font will be named “GoudyOldstyle.fog” and look like the icon below.



GoudyOldstyle.fog

Note: If you already have a Fontographer file for GoudyOldstyle in the folder that you generate to, Meta Pro will name your new file “GoudyOldstyle.fog”.

And by using Meta Pro, Fontographer users can now edit their TrueType fonts. Simply convert the TrueType font into a Fontographer file with Meta Pro, edit the font in Fontographer, generate a Type 1 font, and then use Meta Pro to change it back into TrueType!

Converting fonts

Once you have selected your “Output Formats” and “Computer Types,” there is only one thing left to do: Convert your fonts.

To convert fonts:

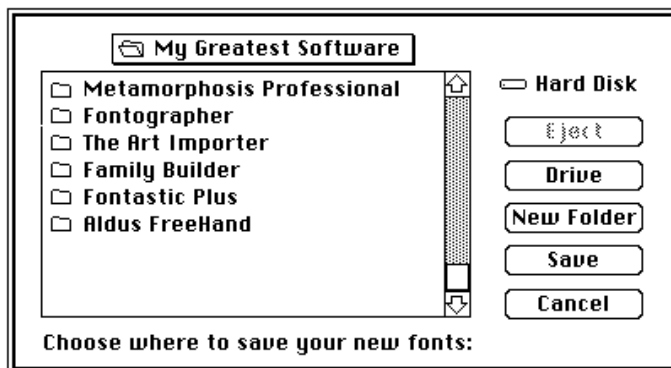
- Go to the File menu and choose “Convert...”

OR

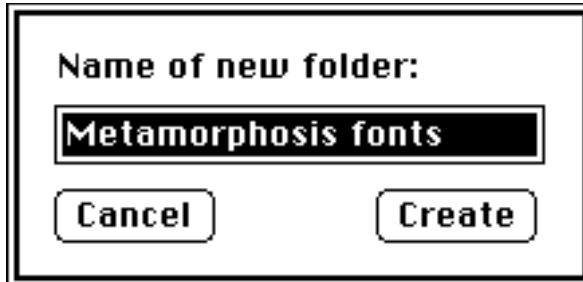
- Press the “Convert...” button in the upper right hand corner of the window.



Metamorphosis Professional gives you the option of determining where you would like to store your new fonts.



If you press the “New Folder” button, Meta Pro will allow you to create a completely new folder and determine where you would like it to be placed.



Once you have chosen where you wish to store your fonts, a dialog box shows which font is being generated. A progress bar shows how the current font conversion is progressing. The pie graph on the right shows what portion of the overall font conversion process has completed.

Meta Pro will clear fonts from the “Fonts to Convert” list as they finish converting. You can cancel the conversion process at any time by pressing the “Stop” button in the progress box or by pressing the command key and typing a period. Doing so does not get rid of any fonts that have already been generated, or remove any fonts from the “Fonts to Convert” list, but it does stop any further generation.

When you finish converting fonts, you can convert more fonts, change to the “Convert text” mode, or quit Meta Pro.

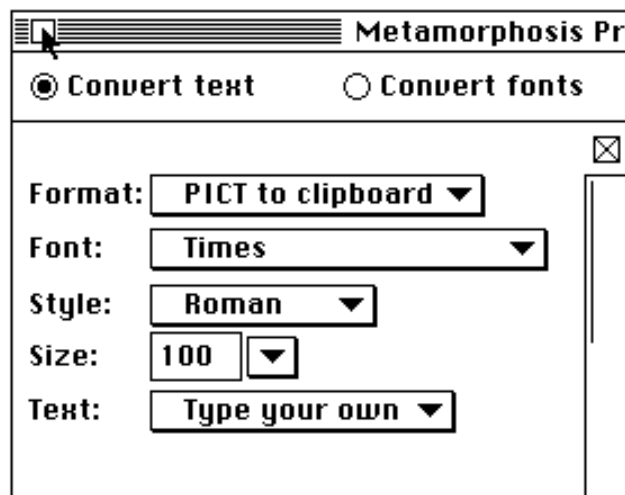
Note: If you generate a batch of fonts, the font generationg procedure could be length. If you are running MultiFinder or System 7, you can work on other projects since Meta Pro will run in the background. If you aren't running MultiFinder or System 7, you might want to select a batch of fonts and generate them all at once, during a lunch break, or maybe even overnight.

To quit Metamorphosis:

- Go to the File menu and choose “Quit.”

Or

- Click on the close box.



Congratulations! You have just finished our demonstration.

We hope you have enjoyed the ABC's of Metamorphosis Professional. Altsys invites you to share your Metamorphosis Professional Demonstration by showing it to your associates. You are welcome to let them use your disk or make a copy of the demonstration program.

If you would like to purchase a copy of Metamorphosis Professional, call Altsys Corporation at (214) 680-2060 or contact your favorite software dealer.

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