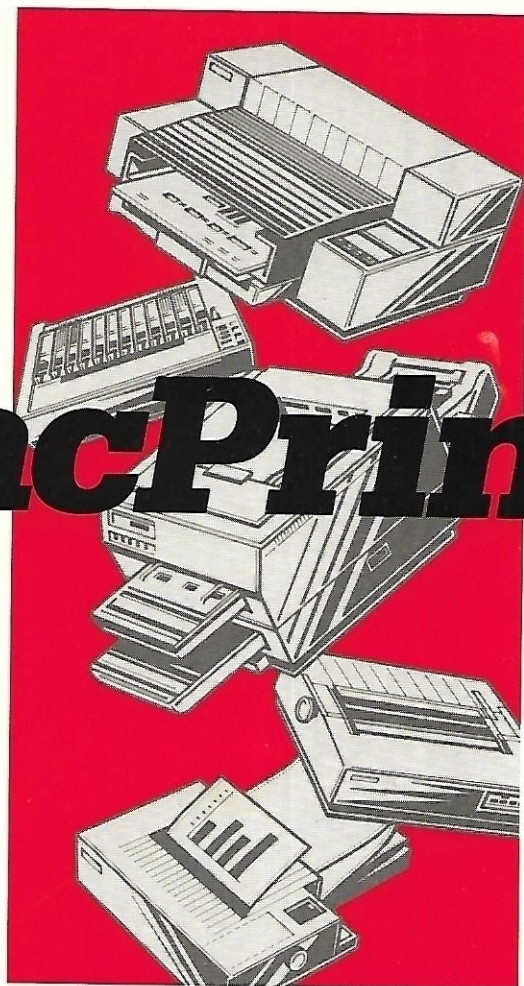
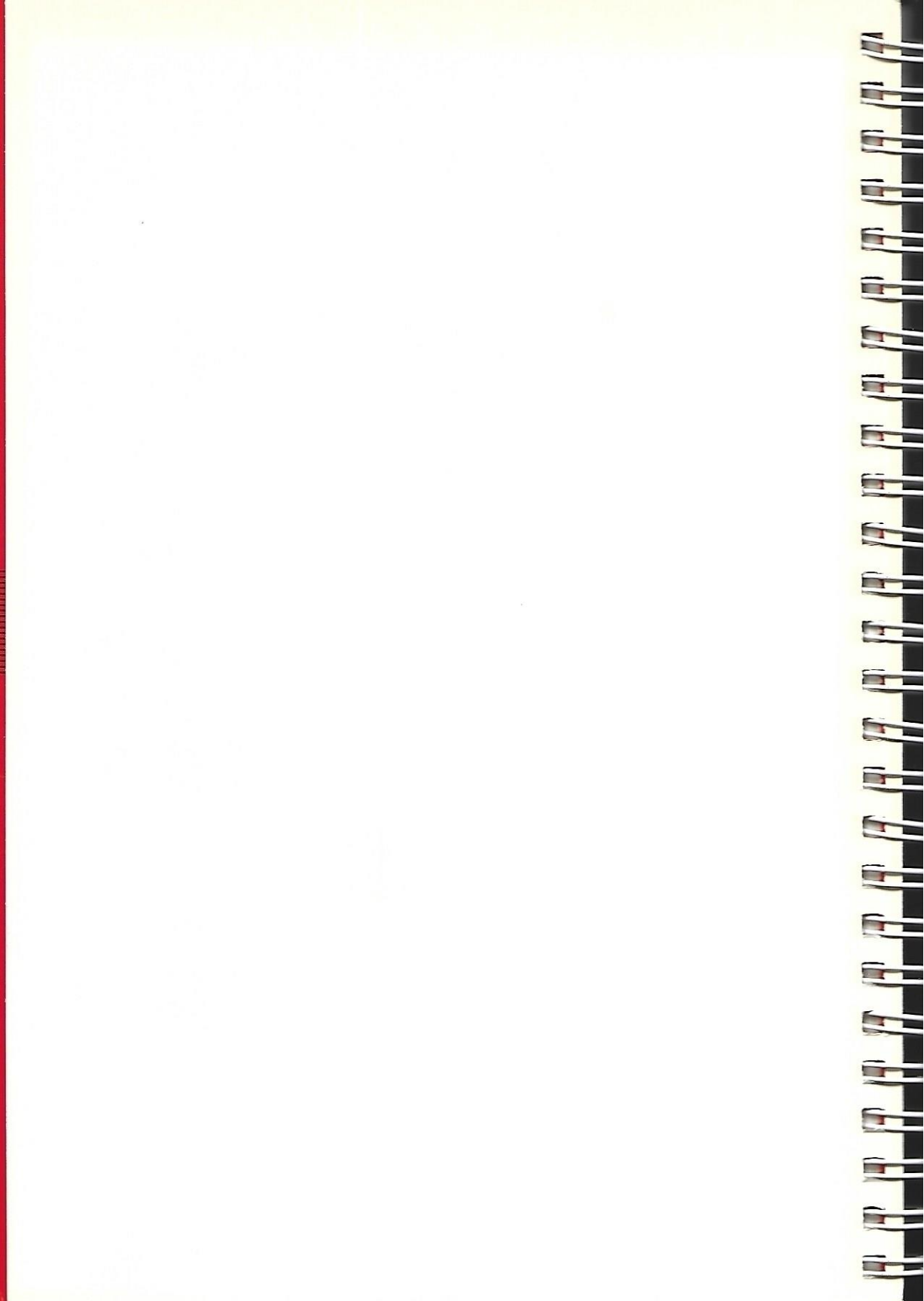


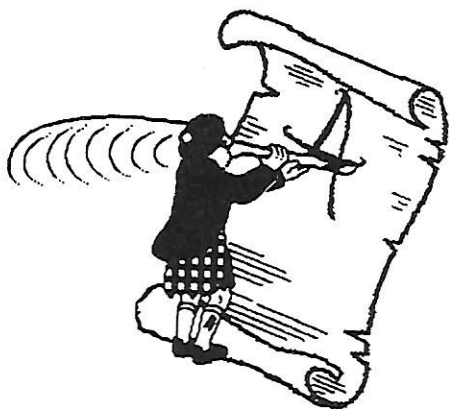


# Mac



# MacPrint™





# MacPrint®

Hewlett-Packard Reorder Number 35177A



Helping you get more from your printer.

2200 Powell Street, Suite 500  
Emeryville, California 94608

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## INTRODUCTION

# ABOUT MACPRINT

## *Welcome to MacPrint*

**MacPrint** is brought to you by Insight Development Corporation, an industry leader in software for device management. For several years we have been writing "printer drivers" for a multitude of applications, operating systems, and output device manufacturers. The list of companies includes Hewlett-Packard, Epson®, QMS®, Toshiba® and others. At the same time we have been developing **LaserControl**® and **PrintAPlot**®, printer driver software available through retail distribution channels. Both programs are designed to run under PC-DOS® or MS-DOS®. They support large numbers of applications and drive printers to their maximum capabilities. I am proud to introduce our newest product, for the Apple Macintosh®, **MacPrint**.

**MacPrint** does more than connect your Macintosh to a Hewlett-Packard compatible printer. We developed the "driver" as if we had been contracted by Apple® and Hewlett-Packard, combining the Macintosh ease of use and the LaserJet and DeskJet printing quality and speed. Using our software, printer, and graphics expertise, together with Macintosh standards, we have created, and now present **MacPrint**.

Insight Development is proud of its history of customer support and satisfaction. We appreciate your trust and confidence.

Once again welcome to Insight Development's **MacPrint** and the wonderful world of Macintosh.

Ron Huch  
President  
Insight Development Corporation  
"Changing As Your Needs Change"

## The Registration Card



*MacPrint* is a continuously evolving software product. As new printers become available, it is important that we incorporate their characteristics into *MacPrint*. We have found that new printer ideas and concepts often benefit many of the prior printer models and existing customers. Our goal is to allow our customers to realize the full potential of their printers both now and in the future.

The enclosed Registration Card is our *only* way of keeping track of your investment in *MacPrint*. *MacPrint* is covered by a Limited Warranty, the details of which are spelled out on the Software License Agreement. If you do not turn in your Registration Card, we cannot comply with this warranty.

Furthermore, only users who have completed Registration Cards on file with us are entitled to free technical support. You must mail in your Registration Card within 30 days from the date of purchase to receive 90 days of free support. For details, please see the section on *Technical Support* in Chapter 8—IN CASE OF DIFFICULTY.

Finally, registered users receive a free copy of Insight's newsletter which includes information on new products, upcoming product releases, and Insight's extended technical support program.

Do not delay! Find that card, fill it out and mail it immediately (the postage is paid for). We will reward your effort by keeping you informed of the latest additions and capabilities of *MacPrint* that apply to your printer. Thank you.

# Manual Organization

The manual is designed to keep your life as simple as possible. The overall objective is to enable you to use your printer and enjoy the results. It is written for both beginning and expert Macintosh users. We assume that you are already familiar with your Macintosh, have read the manuals that came with your computer, and are generally familiar with Macintosh terms and concepts. Where possible, non-Macintosh terms are explained as a part of the text.



The manual includes:

**Introduction** ABOUT MACPRINT introduces Insight Development in a welcoming letter from our company president, Ron Huch. Chapter summaries and a Quick Start procedure for "power" users are included.

**Chapter 1** GETTING ACQUAINTED introduces how *MacPrint* does its job, specifies the minimum hardware and software requirements, and encourages you to participate by letting us know what your printer needs are.

**Chapter 2** SETTING UP YOUR PRINTER provides step-by-step procedures to help you configure your LaserJet or DeskJet printer. Specifically, the chapter deals with the following Hewlett-Packard printers:

- LaserJet IID
- LaserJet series II
- LaserJet+
- DeskJet PLUS
- DeskJet

**Chapter 3** INSTALLING MACPRINT provides step-by-step procedures to help you transfer the necessary *MacPrint* files and folders to your Macintosh. The chapter contains separate procedures for users with a hard disk, one diskette drive, and two diskette drive systems.

- Chapter 4*     INSTALLING FONTS provides step-by-step procedures for using the *MacPrint* FONT MAPPER utility, the Macintosh FONT/DA MOVER, and the CHOOSER desk accessory, and for installing the Compugraphic fonts. When you finish this chapter, the *MacPrint* installation will be complete.
- Chapter 5*     OPTIMIZING MACPRINT provides information on how *MacPrint* works that will help you get the results you want. This chapter is your best guide to realizing the full potential of *MacPrint*.
- Chapter 6*     USING YOUR PRINTER provides specific information about using each of the printers that *MacPrint* supports. This chapter also includes hints and tips on how to achieve the high quality results *MacPrint* can provide.
- Chapter 7*     APPLICATION NOTES is a collection of notes and tips to help you use *MacPrint* most effectively with the major application programs currently available to Macintosh users.
- Chapter 8*     IN CASE OF DIFFICULTY provides help solving problems you might encounter using *MacPrint*. This chapter also contains information about how to call us for customer support.
- Appendix A*   MACPRINT SERIAL CABLE documents the connector pin assignments and wire connections of the printer cable included with *MacPrint*.
- Appendix B*   MACPRINT FONT CARTRIDGES is a collection of tables identifying each FONT MAPPER generated font with the various font cartridge(s) that *MacPrint* currently supports.

## The Quick Start

This section is for those individuals who feel that the only way to learn to use software is to ignore the manual and jump right in. Although we do not necessarily encourage this approach, we know that you are out there and are anxious to get started. The following procedure is designed for those of you with a good to excellent working knowledge of your Macintosh.



### CAUTION

If you have any trouble understanding this procedure, please skip it! Chapters 1 through 4 explain this procedure in detail, at a much slower pace.

1. Before proceeding, we recommend you write-protect your *MacPrint* diskettes. We also recommend that you make a backup copy of each diskette before proceeding with this software installation.

If there is a README file on the *MacPrint Program* diskette, please review it for any last minute modifications before proceeding.

2. If you are upgrading from a previous version of *MacPrint*, you must remove all the old *MacPrint* software before you install

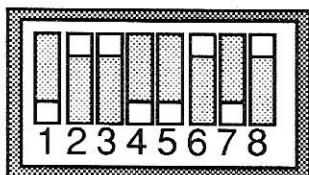
the new version. This includes the *MacPrint* printer drivers, the *Insight Folder*, and the FONT MAPPER. We also recommend that you remove any LJ or DJ fonts created by an earlier version of *MacPrint* as well as reinstall the CS fonts from the new version. If you use the current version of *MacPrint* to recreate these fonts, you'll get better results.

In addition, if you have used an older version of *MacPrint* with SuperLaserSpool™, you must remove the old SuperLaserSpool working files. These files are located in your System Folder. They are identified by the name of the printer driver, followed by ",SLS Copy." (For example, LaserJet II,SLS Copy.) You must remove all of these files from your System Folder before proceeding with the *MacPrint* installation.

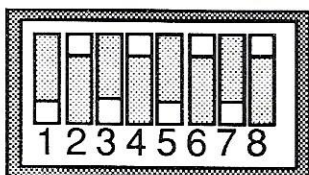
3. *MacPrint* printer drivers are for use with Hewlett-Packard LaserJet IID, LaserJet series II, LaserJet+, DeskJet PLUS, and DeskJet printers. Although not specifically supported, good to excellent results may be realized from the LaserJet 2000 and the LaserJet 500+ using the LaserJet series II driver. To fully support a full page of 300 dpi QuickDraw fonts and graphics, LaserJet printers require 1 Mbyte of memory. This requirement does not apply to DeskJet printers since they are line printers rather than page printers.
4. With all power OFF, use the cable enclosed in the *MacPrint* package to connect the Macintosh printer port to the serial port of the printer. You can still choose the printer port, even when AppleTalk is active, to allow the use of a networked printer connection. See Chapter 7—APPLICATION NOTES for details.
5. You need to set up your printer using either its hardware jumper and switch settings or its Front Control Panel. If you're using a LaserJet+, a DeskJet, or a DeskJet PLUS, follow the instructions in (5a) to set its jumper and switch settings. If you're using a LaserJet IID or a LaserJet series II, follow the instructions in (5b) to set its Front Control Panel.
- 5a. The preferred serial baud rate for all printers is 19200. Alternate switch settings for 9600 are also provided.

**HP LaserJet+:**

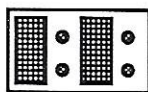
Remove the printer's rear panel (4 screws) and the vertical support bracket (1 screw) to access switches and jumpers. Refer to the *Operator's Reference Manual, Appendix F*, for complete removal and installation instructions.



LaserJet+ Preferred Setting



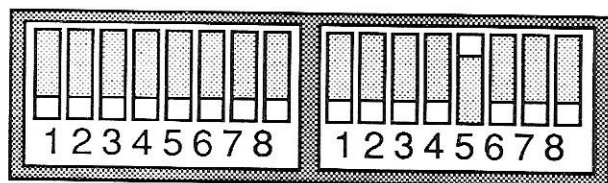
LaserJet+ Alternate Setting



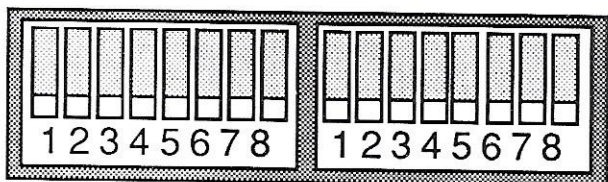
RS-232 Jumper Setting:

After the switch and jumper settings are configured, replace the bracket and cover plate and then turn the printer ON.

**HP DeskJet PLUS:**



Bank A                      Bank B  
DeskJet PLUS Preferred Setting

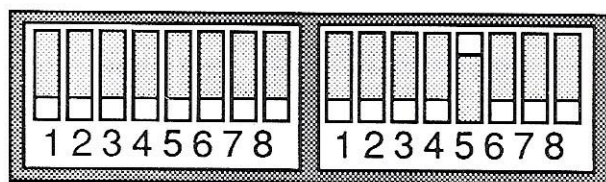


Bank A                      Bank B  
DeskJet PLUS Alternate Setting

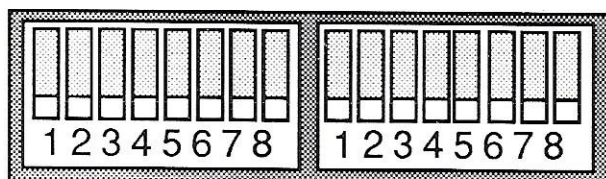
There are no jumper settings for the HP DeskJet PLUS. After the switch settings are configured, turn the printer ON.

**NOTE**

*MacPrint* overrides the FONT and MODE switch settings on the front panel of the DeskJet PLUS.

**HP DeskJet:**

Bank A                      Bank B  
DeskJet Preferred Setting



Bank A                      Bank B  
DeskJet Alternate Setting

There are no jumper settings for the HP DeskJet. After the switch settings are configured, turn the printer ON.

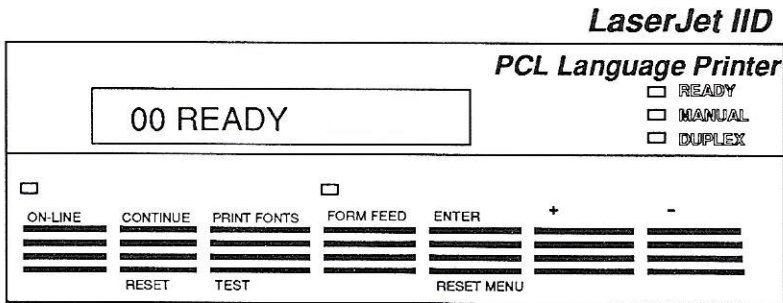
**NOTE**

*MacPrint* overrides the FONT and MODE switch settings on the front panel of the DeskJet.

- 5b. Power ON your LaserJet IID or LaserJet series II and use its Front Control Panel to set the following:

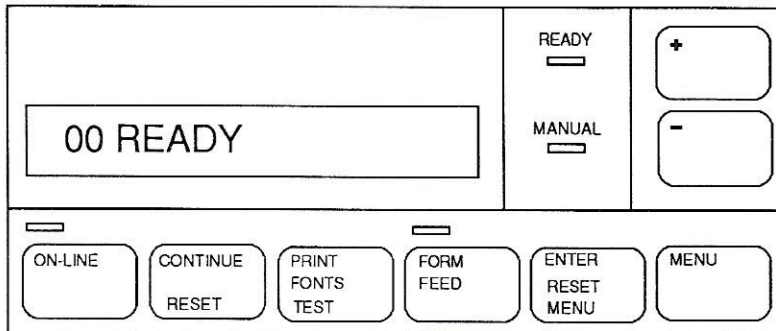
**HP LaserJet IID:**

- AUTO CONT = ON
- I/O = SERIAL
- SERIAL = RS-232
- BAUD RATE = 19200
- ROBUST XON = ON
- DTR POLARITY = HI



**HP LaserJet series II:**

- SYM SET = ROMAN-8
- AUTO CONT = ON
- I/O = SERIAL
- BAUD RATE = 19200
- ROBUST XON = ON
- DTR POLARITY = HI



To check your printer settings, take the printer OFF LINE, push and hold the PRINT FONTS/TEST button until the Display Window shows 05 SELF TEST. Release the button. After about 20 seconds the printer will produce a printout of its current configuration and hardware status. Check the printout to confirm the correct settings. Also note the amount of "Installed Memory" or "RAM size." If you have less than 1000 Kbytes, please review Chapter 8—IN CASE OF DIFFICULTY.

Holding down the PRINT FONTS/TEST button too long starts the 04 SELF TEST which continuously prints page after page of the printer's character set. The easiest way to escape from this test is to remove the paper tray(s), let the printer finish the current page, and then reset the printer by turning it OFF and then back ON.

6. Power ON your Macintosh. Insert the *MacPrint Program* diskette into an available drive and open its icon. It contains two folders:
  - *Step 1 - Place in System Folder*
  - *Step 2 - Make Fonts Here*
7. Open the folder *Step 1 - Place in System Folder*. You will find the *Insight Folder*, which contains font cartridge files, and the following printer driver files:
  - *LaserJet IID*
  - *LaserJet II*
  - *LaserJet+*
  - *DeskJet*
  - *DeskJet PLUS*
8. Drag the *Insight Folder* and the printer driver file appropriate for the printer you're using to your System Folder. You can select as many printer drivers as you need. It is important that you do not change the name of the *Insight Folder* or any file within it. Close the *Step 1 - Place in System Folder* folder.
9. You can move the entire *Step 2 - Make Fonts Here* folder (or its contents) from the *MacPrint Program* diskette to any convenient directory location or copy it to a separate disk. It

does not need to be a part of your System Folder or System diskette.

10. Eject the *MacPrint Program* diskette from your Macintosh.
11. Open your System Folder and then open the *Insight Folder*. You will find the following files which contain font cartridge specifications for their respective family of printers:
  - *LaserJet Cartridges*
  - *DeskJet Cartridges*

You only need the file that is appropriate for the family of printers you're using. The other file may be dragged to the Trash. If you will be using both types of printers, keep both files. Close both windows.

12. Run the FONT MAPPER utility from your new *Step 2 - Make Fonts Here* folder. Click on **Printers** to identify the family of printers the FONT MAPPER is to work with. Then create a font suitcase of your LaserJet (DeskJet) internal and font cartridge typefaces. *As a minimum be sure to select and create the internal font set for your printer.*

Create a suitcase for each combination of cartridges that you might use. It is not a good idea to put all possible external cartridge fonts into a single suitcase. Please review Chapter 4—*INSTALLING FONTS* for further explanation.

### CAUTION

If you are using Adobe Type Manager (ATM), be sure to turn it off before running FONT MAPPER to create your printer and cartridge fonts. If you don't, the fonts that are created will be missing some characters for screen display although they will print properly. Once your fonts are created, you may turn ATM back on, as it is fully compatible and supported by *MacPrint* during normal printing operations.

13. Insert the *MacPrint Fonts* diskette into an available drive and open its icon. Each file contains a compressed version of a Compugraphic font suitcase. They are:

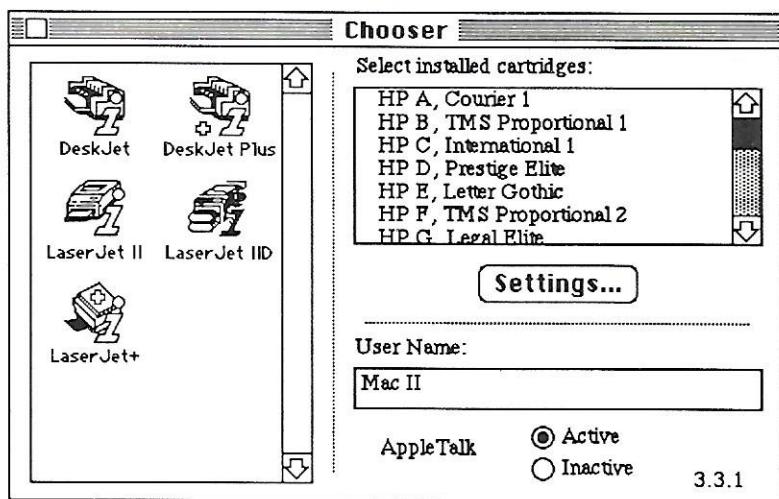
- *CS Courier.sit* (mono spaced font)
- *CS Triumvirate.sit* (proportionally spaced, sans-serif font, very similar to Helvetica)
- *CS Times.sit* (proportionally spaced, serif font)
- *CS Symbol.sit* (mono spaced font of special symbols and characters)

If you have a hard disk, copy the four files to a convenient folder on your hard disk. (*Make Fonts Here* is a good choice.) If you don't have a hard disk, please see Chapter 4—*INSTALLING FONTS* for further instructions. Remove the *MacPrint Fonts* diskette.

14. Double-click on each of the ".sit" files to create four suitcases of fonts. Each resulting suitcase contains the decompressed version of the font in 9, 10, 12, 14, 18, 24, 36, 40, 48, 56, 72, and 96 point sizes. They are provided with *MacPrint* to support the Quality print command in the QuickDraw™ Graphics mode. See Chapter 5—*OPTIMIZING MACPRINT*.
15. Drag the four ".sit" files from your hard disk to the Trash. *MacPrint* does not need them, they take up a lot of room, and you can always retrieve them from the *MacPrint Fonts* diskette if you need them.

You should now have at least five new font suitcases. One or more suitcases contain the specifications of the internal and cartridge typefaces available to your printer and are represented as LJ or DJ fonts (for example, LJ Times or DJ Times). The other four suitcases are each a Compugraphic font family and are represented as CS fonts (for example, CS Courier).

16. Use the FONT/DA MOVER (version 3.8 or higher) or another font manipulation utility (SUITS CASE II™, etc.) to install your choice of LJ or DJ and CS fonts into your System file.
17. Pull down the CHOOSER from the Apple menu.



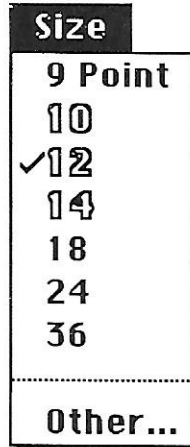
Click the *MacPrint* driver for your printer. If any font cartridges are currently plugged into your printer, select them from the scroll dialog box.

### NOTE

If you have used an LJ/DJ font in your document with the correct size and style and are still getting low quality bitmapped output, you have probably not selected the proper cartridge on this screen.

Click the **Settings** button to select both the baud rate and printer port. You can still choose the printer port, even when AppleTalk® is active, to allow the use of a networked printer connection. A dialog box appears if this is your choice. Close the CHOOSER.

18. Run your favorite application software. Select an LJ/DJ font. Select a size displayed in outline format. (These are fonts whose size is displayed as an outlined number, for example, 10, 12, and 14 in the diagram following.) Use **Page Setup** and **Print**.

**NOTE**

The LJ/DJ font sizes displayed in outline format match the sizes of your font cartridge and internal fonts. When you use these sizes in styles that are supported at the printer, they will always print at the highest possible printer resolution and at the fastest possible speed.

**NOTE**

Some applications contain an option called Fractional Widths or Use Printer Spacing (or something similar). Often this option is found in the **Page Setup** dialog. *MacPrint* produces higher quality output if this option is ON.

19. Now try printing using the Compugraphic (CS) fonts, using the Low, Medium, and High Quality settings. Notice the difference in time required to print a page. When using these fonts (and/or other Macintosh fonts), there is a trade-off between printing speed and graphics output resolution.

Did your full page of graphics at the High Quality setting print on two pages, or did you get an error 20 indicated on the printer's display panel? If so, your printer has less than 1 Mbyte of memory. (You can clear an error 20 by pressing the CONTINUE button.) Please review Chapter 8—IN CASE OF DIFFICULTY.

20. Chapter 5—OPTIMIZING *MACPRINT* is the key to excellent printing results. *MacPrint* is certainly an easy product to use, but it depends somewhat on your understanding of how it works. Take your time and experiment with different software and printer settings. Skip now to Chapter 5.

# GETTING ACQUAINTED

This first chapter briefly discusses *MacPrint* and its features, then specifies the minimum hardware and software requirements, and finally encourages you to participate in the ongoing evolution of *MacPrint* by letting us know what you need from your printer. But first, a quick and final reminder about sending in the Registration Card—and thanks.



Perhaps now is a good time to get a cup of coffee, convince your boss that someone else can handle the phone calls for the next 20 minutes or so, and get serious about completing Chapters 1 through 4.

## What Is MacPrint?

*MacPrint* is a set of software programs that allow Macintosh computers to work with non-Apple printers. These software programs are called printer drivers. The installation procedure explained in Chapter 3—INSTALLING MACPRINT shows you how to install the *MacPrint* drivers into the System Folder of your start-up device.

Once installed, the Macintosh CHOOSER Desk Accessory is used to direct your output to your printer via the *MacPrint* driver. Without doing anything else, your printer is now a full featured printer, capable of printing all characters and graphics directly from the Macintosh.

*And there's more.*

*MacPrint* also includes the *MacPrint* FONT MAPPER. The FONT MAPPER makes "copies" of your printer's internal and cartridge typefaces for display on your screen. (A typeface is the design of a

character that a printer puts on the page. For instance, Courier, Helvetica®, and Letter Gothic typefaces all print characters of different designs.) The FONT MAPPER provides your Macintosh with information about the specific characteristics of your printer's typefaces. In the Macintosh computer, the screen representation of a typeface is called a font. The FONT MAPPER generates a Macintosh compatible file of LJ fonts for a LaserJet (for example, LJ Times) or DJ fonts for a DeskJet (for example, DJ Times). These fonts represent the typeface(s) available in your printer.

After they are created, you use the FONT/DA MOVER or one of the other font management utilities to install the LJ/DJ fonts in the System file. Once an LJ/DJ font is a part of the System file, it is available to any application via the Macintosh Font Menu. The typeface(s) of your printer are now fully represented on your computer's screen, *so what you see on your screen is what you get from your printer.*

How is the coffee holding out? This is a good time for a refill, or at least a quick sip—then let's make sure that you have all of the right parts and pieces.

## **Hardware & Software Requirements**

The following hardware and software are necessary to complete a *MacPrint* installation:

- One of the following computer systems:
  - Macintosh IIx
  - Macintosh IICx
  - Macintosh II
  - Macintosh SE/30
  - Macintosh SE
  - Macintosh Plus



- An 800 Kbyte diskette drive (standard on the II, SE, and Plus Macintosh models), or a higher capacity drive that can read an 800 Kbyte diskette (standard on the IIx, IIfx, and SE/30 Macintosh models).
- One of the following *MacPrint* supported printers (or model-compatible PCL printer):
  - HP LaserJet IID\*
  - HP LaserJet series II\*
  - HP LaserJet+\*
  - HP DeskJet PLUS
  - HP DeskJet

\* 1 Mbyte memory is recommended for full-page high-quality graphics

- The *MacPrint* Software Package.
- Macintosh Operating System 5.0 or higher (6.0.2 or higher is recommended)

The following items are included with each *MacPrint* Package:

- *MacPrint Program Diskette*
- *MacPrint Fonts Diskette*
- *MacPrint Registration Card*
- *MacPrint User's Guide*
- *MacPrint Serial Printer Cable*

**NOTE**

If there is a README file on the *MacPrint Program* diskette, please review it for any last minute modifications to *MacPrint* or to this manual. To read this file, double-click on its icon.

## ***Wish List Contributions***

Try as we might, and as good as our ideas are, there just might be something that you wish your printer could do, and (who knows) maybe it can. If our support line receives enough requests, or if your idea is so terrific that we cannot pass it up, a future release of *MacPrint* may well include your wish. Write it down, send us a letter or a fax, or even give us a call. Our products are made for you. What may seem to be a minor detail might be just what we have been looking for. Certainly this is not a promise of any sort, but we are inviting you to participate in the ongoing evolution of the *MacPrint* line of products. Give us a try. We might surprise you by telling you that it's already being done.

Once again it is time to monitor the coffee situation. Then on to Chapter 2—SETTING UP YOUR PRINTER.

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## CHAPTER 2



# SETTING UP YOUR PRINTER

This chapter presents a series of step-by-step procedures to help you configure your printer for use with *MacPrint*. It is divided into five sections:

- HP LaserJet IID Configuration
- HP LaserJet series II Configuration
- HP LaserJet+ Configuration
- HP DeskJet PLUS Configuration
- HP DeskJet Configuration

Each section presents a complete set of instructions for configuring your printer settings. You only need to read the section appropriate for your printer.

The LaserJet IID, LaserJet series II, and LaserJet+ drivers are optimized to support their respective printers. However, you may also get excellent results using the LaserJet 2000 or the LaserJet 500+ by selecting the LaserJet series II driver.

## *HP LaserJet IID Configuration*

We strongly recommend that you *DO NOT* attempt to use a **manual** switch box to switch any LaserJet IID printer between multiple computers. Many Printer Interface Control Boards have had to be replaced because the mechanical switch tends to interrupt or short two or more interface pins at the wrong time. The “electronic” switches/buffers are okay, as all of the “switching” is done as an electronic logic operation, rather than a mechanical one.

Although not absolutely required, it is highly recommended that your LaserJet IID have 1 Mbyte (or more) of RAM. In any case, continue

with this installation. You can use one of the printer's test modes to find out your printer's current configuration. Printers with 512 Kbytes of RAM will be fully operational with the single exception of printing a full page of High Quality (300 dpi) graphics. You'll read more about this later.

### ***LaserJet IID Hardware Configuration***

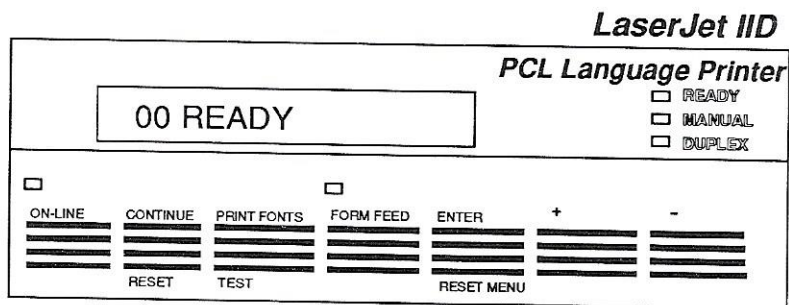
The HP LaserJet IID printer does not have any user settable switches to select control options. Instead, all of the printer operation settings are selected via the Front Control Panel. Please see the *LaserJet IID User's Manual* for a full explanation of all of the Control Panel operations. Following is the recommended LaserJet IID setup for use with *MacPrint*.

### ***LaserJet IID Printer Settings***

This procedure will configure a LaserJet IID printer with these settings:

- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - DTR HIGH hardware operation
  - AUTO CONTINUE on out-of-memory error
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the LaserJet IID serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.



2. Turn the printer on. It takes a minute or so to warm up. Continue after the display window indicates **00 READY**.
3. Press the ON LINE front panel button to take the printer OFF LINE. The ON LINE indicator will go off.
4. Hold down the front panel MENU button until AUTO CONT = xxx is displayed (about 5 seconds). Use the + or - button to select **AUTO CONT = ON**. Press the ENTER button to save the selection.
5. Press the MENU button to show I/O = xxx. Use the + or - button to select **I/O = SERIAL**. Press the ENTER button to save the selection.
6. Press the MENU button to show SERIAL = xxx. Use the + or - button to select **SERIAL = RS-232**. Press the ENTER button to save the selection.
7. Press the MENU button to show BAUD RATE = xxx. Use the + or - button to select **BAUD RATE = 19200**. Press the ENTER button to save the selection.

We recommend a baud rate of 19200 to achieve the fastest possible printing. However, other baud rates can be used if your installation requires them. For example, you may need to use a lower baud rate if you're sharing your printer.

8. Press the MENU button to show ROBUST XON = xxx. Use the + or - button to select **ROBUST XON = ON**. Press the ENTER button to save the selection.

9. Press the MENU button to show DTR POLARITY = xxx. Use the + or - button to select **DTR POLARITY = HI**. Press the ENTER button to save the selection.
10. Press the MENU button once more to return the printer to **00 READY**.
11. Check your printer settings by pushing and holding the PRINT FONTS/TEST button until the display window shows 05 SELF TEST and release the button. After about 20 seconds the printer produces a printout of its current configuration and hardware status. Check the printout to confirm that you have made the correct settings. Also note the RAM size. This is the amount of memory installed in your printer. If you have less than 1000 Kbytes, be sure to review Chapter 8—IN CASE OF DIFFICULTY.



Holding down the PRINT FONTS/TEST button too long starts the 04 SELF TEST which continuously prints page after page of the printer's character set. The easiest escape from this test is to remove the paper tray(s), let the printer finish the current page, then reset the printer by turning it OFF, then ON.

12. Return the printer ON LINE by pressing the ON LINE button.

Your LaserJet IID printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* and complete one of the procedures to install *MacPrint* onto your Macintosh.

## ***HP LaserJet Series II Configuration***

We strongly recommend that you *DO NOT* attempt to use a **manual** switch box to switch any LaserJet series II printer between multiple computers. Many Printer Interface Control Boards have had to be replaced because the mechanical switch tends to interrupt or short two or more interface pins at the wrong time. The "electronic" switches/buffers are okay, as all of the "switching" is done as an electronic logic operation, rather than a mechanical one.

Although not absolutely required, it is highly recommended that your LaserJet series II have 1 Mbyte (or more) of RAM. In any case, continue with this installation. You can use one of the printer's test modes to find out your printer's current configuration. Printers with 512 Kbytes of RAM will be fully operational with the single exception of printing a full page of High Quality (300 dpi) graphics. You'll read more about this later.

### ***LaserJet Series II Hardware Configuration***

The HP LaserJet series II printer does not have user settable switches to select control options. Instead, you set the printer operation settings via the Front Control Panel. Please see the *LaserJet series II User's Manual* for a full explanation of all of the Control Panel operations. Following is the recommended LaserJet series II setup for use with *MacPrint*.

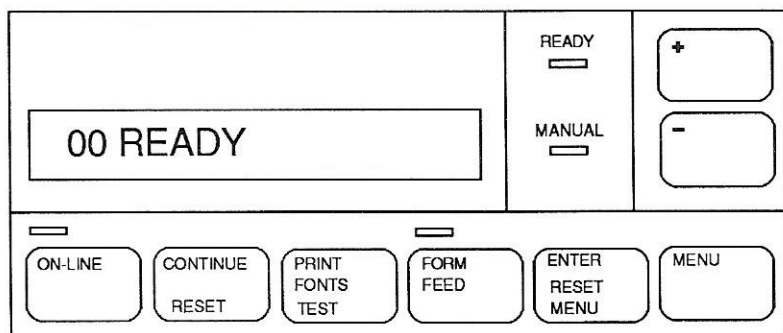
### ***LaserJet Series II Printer Settings***

This procedure will configure a LaserJet series II printer with these settings:

- ROMAN 8 symbol set
- RS-232 Serial Interface
- 19,200 bps data transfer rate
- XON / XOFF software protocol
- DTR HIGH hardware operation
- AUTO CONTINUE on out-of-memory error

1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the LaserJet series II serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.



2. Turn the printer on. It takes a minute or so to warm up. Continue after the display window indicates **00 READY**.
3. Press the ON LINE front panel button to take the printer OFF LINE. The ON LINE indicator will go off.
4. Hold down the front panel MENU button until SYM SET = xxx is displayed (about 5 seconds). Use the + or - button to select **SYM SET = ROMAN-8**. Press the ENTER button to save the selection.
5. Press the MENU button to display AUTO CONT = xxx. Use the + or - button to select **AUTO CONT = ON**. Press the ENTER button to save the selection.
6. Press the MENU button to display I/O = xxx. Use the + or - button to select **I/O = SERIAL**. Press the ENTER button to save the selection.

7. Press the MENU button to show BAUD RATE = xxx. Use the + or - button to select **BAUD RATE = 19200**. Press the ENTER button to save the selection.

We recommend a baud rate of 19200 to achieve the fastest possible printing. However, other baud rates can be used if your installation requires them. For example, you may need to use a lower baud rate if you're sharing your printer.

8. Press the MENU button to show ROBUST XON = xxx. Use the + or - button to select **ROBUST XON = ON**. Press the ENTER button to save the selection.
9. Press the MENU button to show DTR POLARITY = xxx. Use the + or - button to select **DTR POLARITY = HI**. Press the ENTER button to save the selection.
10. Press the MENU button once more to return the printer to **00 READY**.
11. Check your printer settings by pushing and holding the PRINT FONTS/TEST button until the display window shows 05 SELF TEST and release the button. After about 20 seconds the printer produces a printout of its current configuration and hardware status. Check the printout to confirm that you have made the correct settings. Also note the amount of "Installed Memory." If you have less than 1000 Kbytes, be sure to review Chapter 8—IN CASE OF DIFFICULTY.

Holding down the PRINT FONTS/TEST button too long starts the 04 SELF TEST which continuously prints page after page of the printer's character set. The only escape from this test is to remove the paper tray, let the printer finish the current page, then reset the printer by turning it OFF, then ON.



12. Return the printer ON LINE by pressing the ON LINE button.

Your LaserJet series II printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* and complete one of the procedures to install *MacPrint* onto your Macintosh.

## ***HP LaserJet+ Configuration***

We strongly recommend that you *DO NOT* attempt to use a **manual** switch box to switch any LaserJet+ printer between multiple computers. Many Printer Interface Control Boards have had to be replaced because the mechanical switch tends to interrupt or short two or more interface pins at the wrong time. The “electronic” switches/buffers are okay, as all of the “switching” is done as an electronic logic operation, rather than a mechanical one.

Although not absolutely required, it is highly recommended that your LaserJet+ have 1 Mbyte (or more) of RAM. In any case, continue with this installation. Printers with 512 Kbytes of RAM will be fully operational with the single exception of printing a full page of High Quality (300 dpi) graphics. You'll read more about this later.

### ***LaserJet+ Hardware Configuration***

The HP LaserJet+ printer has a block of 8 user settable switches and a jumper block to select the printer's control options. The switches and jumpers are accessed by removing the printer's rear panel (4 screws) and the vertical support bracket (1 screw). Refer to the *Operator's Reference Manual*, Appendix F, for complete removal and installation instructions.



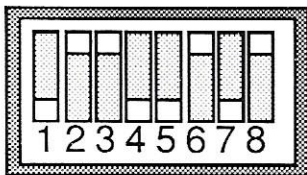
## LaserJet+ Switch Settings

This procedure will configure a LaserJet+ printer with these settings:

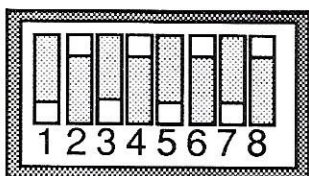
- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - DTR HIGH hardware operation
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the LaserJet+ serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.

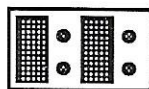
2. Remove the printer's rear panel (4 screws) and the vertical support bracket (1 screw) to gain access to the switch block and jumper block. Refer to the *Operator's Reference Manual*, *Appendix F*, for complete removal and installation instructions.
3. The preferred serial baud rate is 19200. Alternate switch settings for 9600 are also given. Set switch block and jumper block as follows:



LaserJet+ Preferred Setting



LaserJet+ Alternate Setting



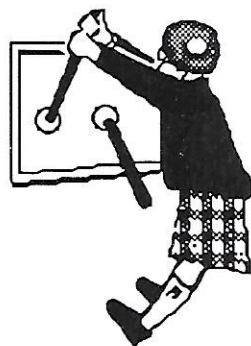
RS-232 Jumper Setting:

Replace the printer's vertical support bracket (1 screw) and rear panel (4 screws). Turn the Macintosh and printer power on.

Your LaserJet+ printer is now ready to work with *MacPrint*. Turn to Chapter 3—INSTALLING *MACPRINT* to complete one of the procedures to install *MacPrint* onto your Macintosh.

## HP DeskJet PLUS Configuration

The HP DeskJet PLUS printer has 2 blocks of 8 user setable switches to select default control options. Please see the *DeskJet PLUS User's Manual* for a full explanation of the printer's operation for each switch setting. For convenience we have included a recommended setup of the DeskJet PLUS switch blocks for use with *MacPrint*.

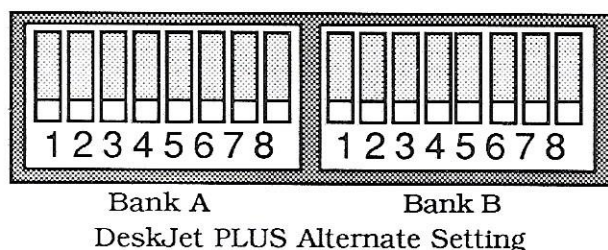
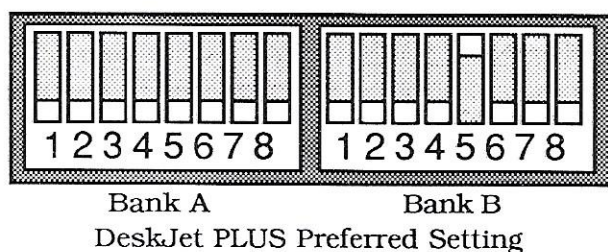


The following procedure will configure a DeskJet PLUS printer with these settings:

- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - DTR HIGH hardware operation
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the DeskJet PLUS serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.

2. The two blocks of 8 switches each are located on the lower (recessed) front panel. (There are no other user setable switches for this printer.)
3. The preferred serial baud rate is 19200. Alternate switch settings for 9600 are also given. Set both blocks as follows:



After you have set these switches, turn the Macintosh and printer power on.

**NOTE**

*MacPrint* overrides the FONT and MODE switch settings on the front panel of the DeskJet PLUS.

Your DeskJet PLUS printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* and complete one of the procedures to install *MacPrint* onto your Macintosh.

## HP DeskJet Configuration

The HP DeskJet printer has 2 blocks of 8 user setable switches to select default control options. Please see the *DeskJet User's Manual* for a full explanation of the printer's operation for each switch setting. For convenience we have included a recommended setup of the DeskJet switch blocks for use with *MacPrint*.

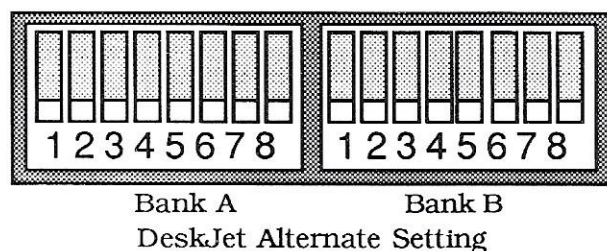
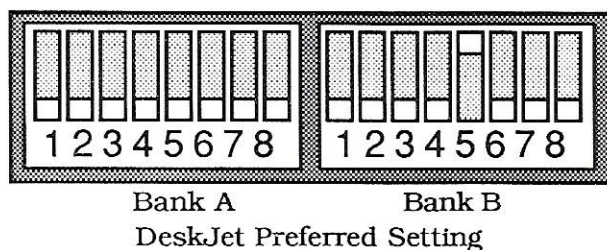


This procedure will configure a DeskJet printer with these settings:

- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - DTR HIGH hardware operation
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the DeskJet serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.

2. The two blocks of 8 switches each are located on the lower (recessed) front panel. (There are no other user setable switches for this printer.)
3. The preferred serial baud rate is 19200. Alternate switch settings for 9600 are also given. Set both blocks as follows:



After you have set these switches, turn the Macintosh and printer power on.

NOTE

*MacPrint* overrides the FONT and MODE switch settings on the front panel of the DeskJet.

Your DeskJet printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* and complete one of the procedures to install *MacPrint* onto your Macintosh.

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## CHAPTER 3

# INSTALLING MACPRINT



This chapter presents the instructions for (1) installing the *MacPrint* drivers into your System Folder and (2) copying the necessary *MacPrint* utilities and files to create your own LJ/DJ fonts.

Included in the *MacPrint* package are two diskettes:

- *MacPrint Program* diskette
- *MacPrint Fonts* diskette

Before proceeding, make sure both disks are "write-protected." Check the sliding plastic "tab" in the corner of either diskette. Move the tab so you can see through the hole. That diskette is now write protected.

We also recommend that you make a backup copy of each *MacPrint* diskette before proceeding with this software installation. Please consult your Macintosh User's Guide if you're unsure how to do so. The following procedures assume that you are working with a copy of the original *MacPrint Program* diskette.

Set aside the *MacPrint Fonts* diskette. It contains the Compugraphic compressed font files which are explained in Chapter 4—INSTALLING FONTS.

The *MacPrint Program* diskette contains two folders:

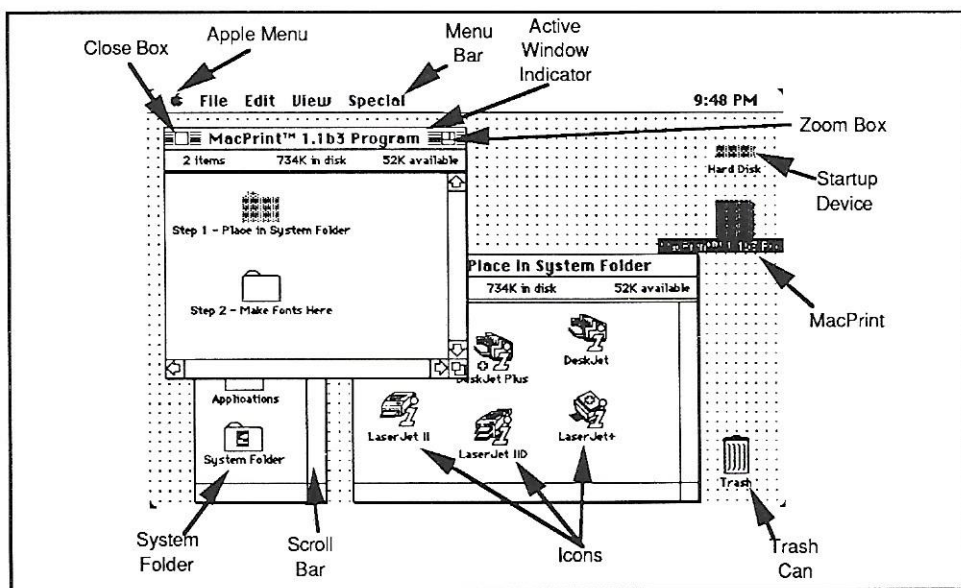
- *Step 1 - Place in System Folder*
- *Step 2 - Make Fonts Here*

The *Step 1 - Place in System Folder* includes the *Insight Folder*, which contains font cartridge files. The *Step 1 - Place in System Folder* also contains the following printer driver files:

- LaserJet IID
- LaserJet series II
- LaserJet+
- DeskJet
- DeskJet PLUS

You must copy the *Insight Folder* and at least one of the printer driver files to your System Folder. You only need to copy the driver that is appropriate for your printer. It is important that you do not change the name of the *Insight Folder* or any file within that folder.

The *Step 2 - Make Fonts Here* folder can either be copied "as is" to your hard disk (or another diskette) or its files can be copied as a group to a convenient diskette or folder of your choice.



Following are three alternative procedures for installing *MacPrint*. Select one, depending on your hardware setup:

- *MacPrint* Installation to a Hard Disk
- *MacPrint* Installation Using Two Diskette Drives
- *MacPrint* Installation Using One Diskette Drive

If you have a hard disk, *always* do the hard disk installation.

## ***How to Upgrade MacPrint***

If you're upgrading from a previous version of *MacPrint*, please save yourself a lot of frustration by following these directions very carefully before installing *MacPrint*.

You must remove all the old *MacPrint* software before you install the new version. This includes the *MacPrint* printer drivers, the *Insight Folder*, and the FONT MAPPER. We also strongly recommend that you remove any LJ or DJ fonts you created using a previous version. Then recreate your fonts using the new version of *MacPrint*. Although you can use the older fonts, the new ones will give you much better results.

If you're using CS fonts, we also recommend you remove the old ones and reinstall those on the new *MacPrint Fonts* diskette. Although you can use the older fonts, the newer ones have been significantly cleaned up. Your output quality will not be affected by these changes; however, the readability of your screen fonts will be improved.

In addition, if you have used an older version of *MacPrint* with SuperLaserSpool™, you must remove the old SuperLaserSpool working files. These files are located in your System Folder. They are identified by the name of the printer driver, followed by "SLS Copy." (For example, LaserJet II,SLS Copy.) You must remove all of these files from your System Folder before proceeding with the *MacPrint* installation.

### **CAUTION**

If you fail to remove the old SuperLaserSpool working files, SuperLaserSpool will continue to use the older version of *MacPrint* even though your application is using the newer version. This will give you very unpredictable results.

## MacPrint Installation to a Hard Disk

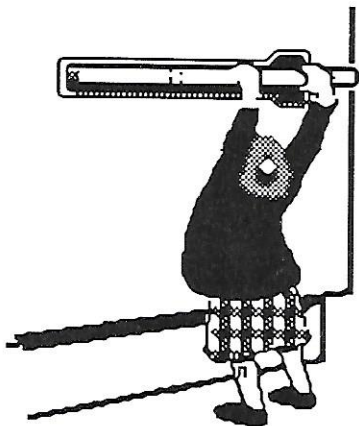
This procedure installs *MacPrint* into the System Folder of a hard disk drive. It assumes you are working with a backup copy of the *MacPrint Program* diskette.

1. Turn the Macintosh power on. Holding down the mouse button for about 5 seconds will eject the diskettes in any drives. Do not insert any diskettes and wait until your Macintosh has completed its start-up procedure.
2. Double-click on your hard disk device icon to open it. Its directory appears as a window on the desktop. Locate (but do not open) the System Folder. It is normally found in this window and is the folder with a picture of a Macintosh on it.

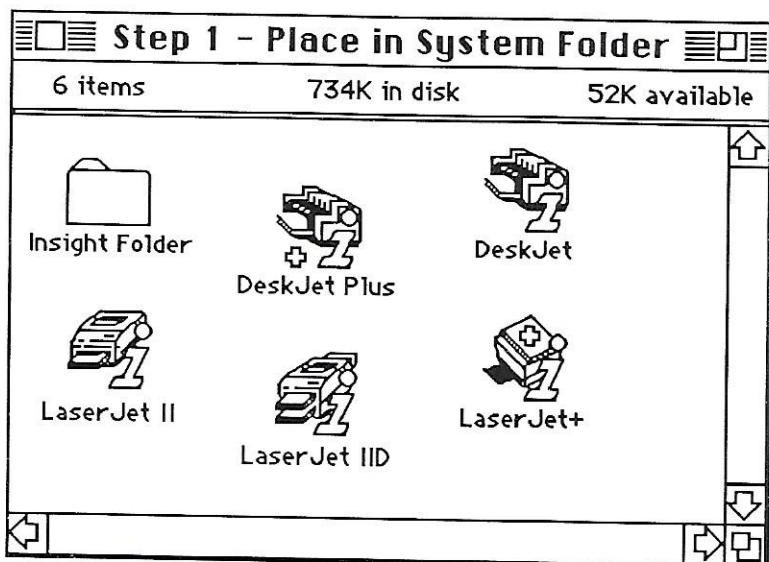


System Folder

3. Insert the *MacPrint Program* diskette into any available disk drive. If the *MacPrint Program* window does not appear on the desktop, double-click to open the *MacPrint Program* window.



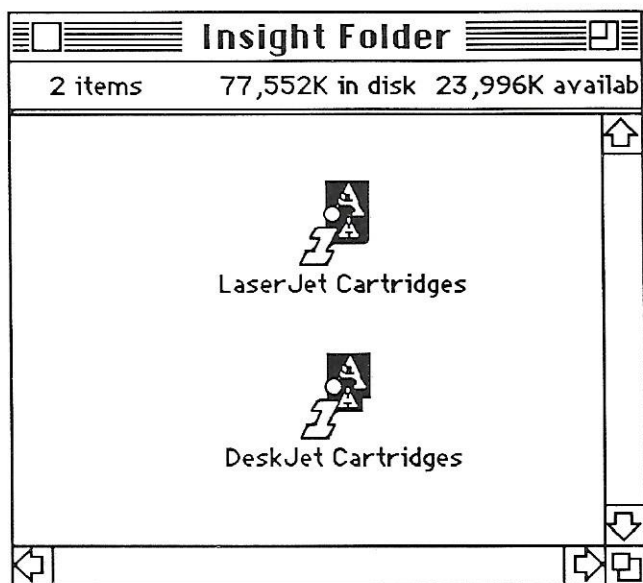
4. Point to and open (double-click) the folder named *Step 1 - Place in System Folder*. It contains the *Insight Folder* and several printer driver files. Copy the *Insight Folder* and the printer driver file for your printer to your System Folder.



You must select at least one printer driver file. Select additional printer driver files if you will be using other printers with your Macintosh.

It is important that you do not change the name of the *Insight Folder* or any file within that folder.

5. Close the *Step 1 - Place in System Folder* folder.
6. Open your System Folder, and then open the *Insight Folder* now located on your hard disk. You will find the following files which contain font cartridge specifications for their respective family of printers:
  - *LaserJet Cartridges*
  - *DeskJet Cartridges*



You only need the file that is appropriate for the family of printers you're using. The other file can be dragged to the Trash. If you will be using both types of printers, keep both files. Close both windows.

7. Copy the *Step 2 - Make Fonts Here* folder to your hard disk. To keep this procedure simple, we suggest copying this folder to your System Folder. Experienced Macintosh users may want to put this folder or its contents in any convenient location. Feel free to do so. Please note that the folder contains a copy of the FONT/DA MOVER version 3.8. *MacPrint* requires version 3.8 or higher.
8. Eject the *MacPrint Program* diskette.

The software installation of *MacPrint* to your hard disk drive is now complete. Your next step is to run the FONT MAPPER utility and generate a suitcase of LJ/DJ fonts to use with your printer. Skip the remainder of Chapter 3 and turn to Chapter 4—INSTALLING FONTS.

## MacPrint Installation Using Two Diskette Drives

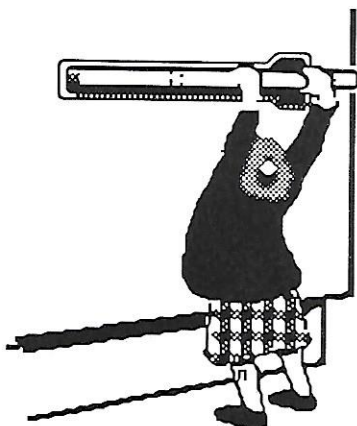
This procedure installs *MacPrint* into the System Folder of the diskette used to start up your Macintosh. It assumes you are working with a backup copy of the *MacPrint Program* diskette.

1. Turn the Macintosh power on. Holding down the mouse button for about 5 seconds will eject the diskettes in any drives. Insert the start-up diskette onto which you want to install *MacPrint* and wait until the Macintosh has completed its start-up procedure.
2. Double-click on the start-up device icon to open it. Its directory appears as a window on the desktop. Locate (but do not open) the System Folder. It is normally found in this window and is the folder with a picture of a Macintosh on it.

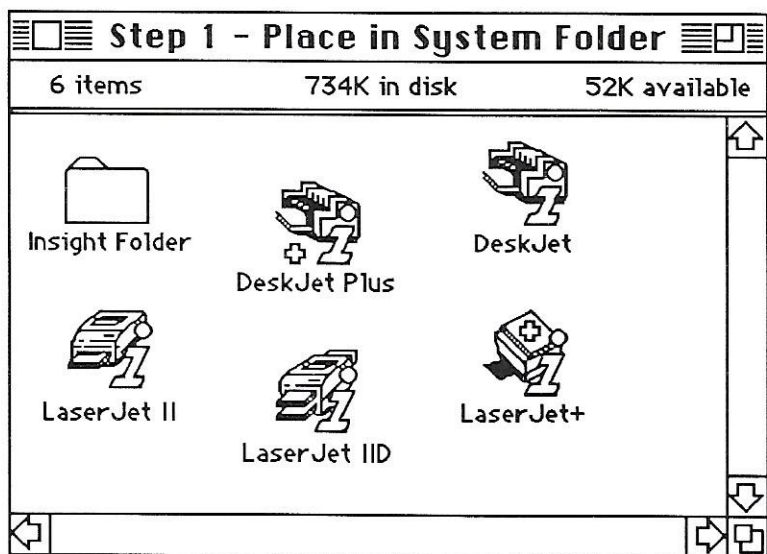


System Folder

3. Insert the *MacPrint Program* diskette into the other disk drive. If the *MacPrint Program* window does not appear on the desktop, double-click to open the *MacPrint Program* window.



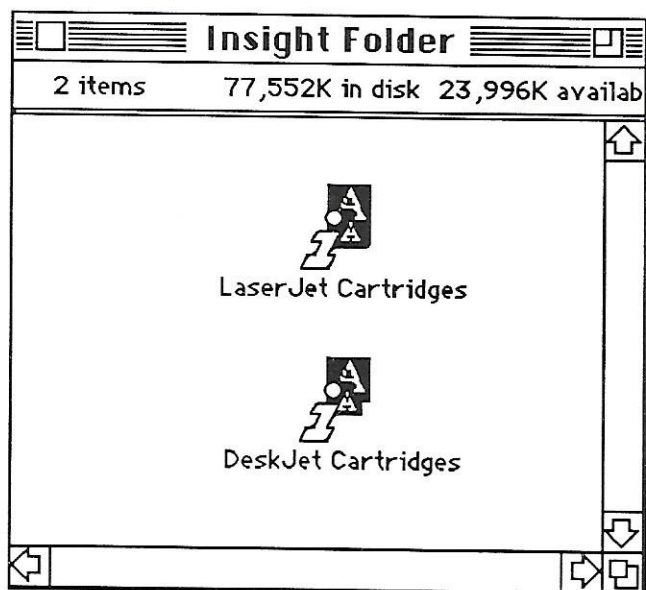
4. Point to and open (double-click) the folder named *Step 1 - Place in System Folder*. It contains the *Insight Folder* and several printer driver files. Copy the *Insight Folder* and the printer driver file for your printer to your System Folder.



You must select at least one printer driver file. Select additional printer driver files if you will be using other printers with your Macintosh.

It is important that you do not change the name of the *Insight Folder* or any file within that folder.

5. Close the *Step 1 - Place in System Folder* folder.
6. Open your System Folder, and then open the *Insight Folder* now located on your start-up diskette. You will find the following files which contain font cartridge specifications for their respective family of printers:
  - *LaserJet Cartridges*
  - *DeskJet Cartridges*



You only need the file that is appropriate for the family of printers you're using. The other file may be dragged to the Trash. If you will be using both types of printers, keep both files. Close both windows.

The software installation of *MacPrint* to the System Folder of your start-up device is now complete.

The *MacPrint Program* diskette also contains the *Step 2 - Make Fonts Here* folder. This folder contains the FONT MAPPER utility and the support files necessary to create the LJ/DJ font suitcases as presented in Chapter 4—INSTALLING FONTS.

Experienced Macintosh users may wish to combine the contents of the *Step 2 - Make Fonts Here* folder with other font handling utilities located on another diskette or on a start-up diskette. Feel free to do so. The only restriction is that the font suitcase generated by the FONT MAPPER requires the FONT/DA MOVER version 3.8 or higher to transfer LJ/DJ fonts into your System file.

Your next step is to run the FONT MAPPER utility and generate a suitcase of LJ/DJ fonts for use with your printer. Skip the remainder of Chapter 3 and turn to Chapter 4—INSTALLING FONTS.

## MacPrint Installation Using One Diskette Drive

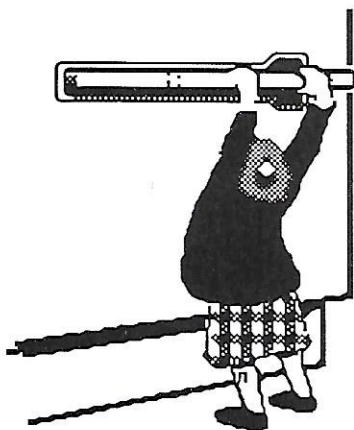
This procedure installs *MacPrint* into the System Folder of the diskette used to start up your Macintosh. It assumes you are working with a backup copy of the *MacPrint Program* diskette.

1. Turn the Macintosh power on. Holding down the mouse button for about 5 seconds will eject any diskette in the drive. Insert the start-up diskette onto which you want to install *MacPrint* and wait until the Macintosh has completed its start-up procedure.
2. Double-click on the start-up device icon to open it. Its directory appears as a window on the desktop. Locate (but do not open) the System Folder. It is normally found in this window and is the folder with a picture of a Macintosh on it.

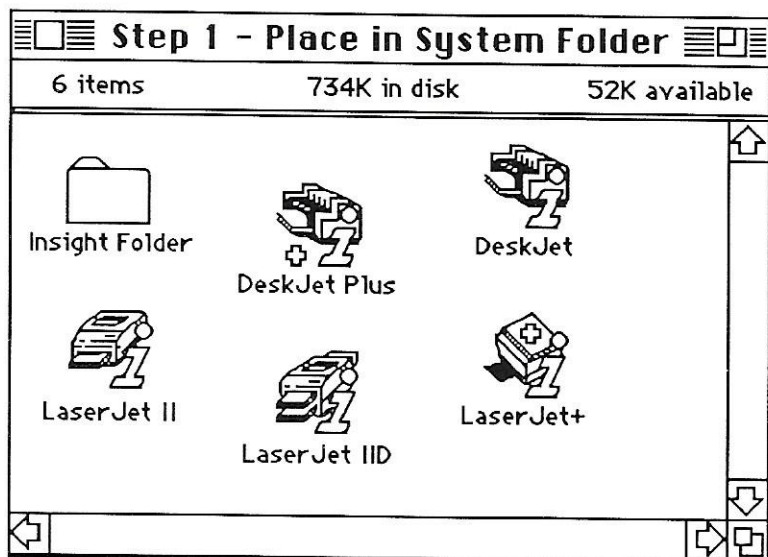


System Folder

3. Point to the File option of the menu bar and pull down to select the Eject command.
4. Remove the start-up diskette from the disk drive and insert the *MacPrint Program* diskette. If the *MacPrint Program* window does not appear on the desktop, double-click to open the *MacPrint Program* window.



5. Point to and open (double-click) the folder named *Step 1 - Place in System Folder*. The Macintosh then asks you to swap diskettes. Follow the on-screen instructions for swapping diskettes.

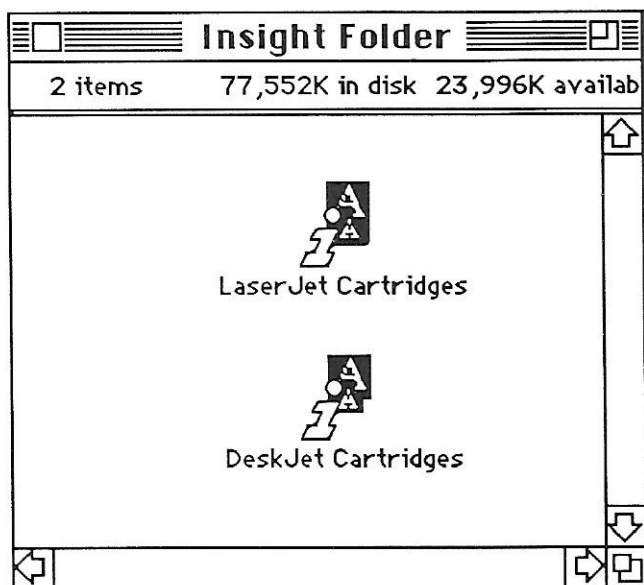


Copy the *Insight Folder* and the printer driver file for your printer to your System Folder.

You must select at least one printer driver file. Select additional printer driver files if you will be using other printers with your Macintosh. It is important that you do not change the name of the *Insight Folder* or any file within that folder.

Swap diskettes as requested until the copy process is complete.

6. Close the *Step 1 - Place in System Folder* folder.
7. Open your System Folder, and then open the *Insight Folder* now located on your start-up diskette. You will find the following files which contain font cartridge specifications for their respective family of printers:
  - *LaserJet Cartridges*
  - *DeskJet Cartridges*



You only need the file that is appropriate for the family of printers you're using. The other file may be dragged to the Trash. If you will be using both types of printers, keep both files. Close both windows.

The software installation of *MacPrint* to the System Folder of your start-up device is now complete.

The *MacPrint Program* diskette also contains the *Step 2 - Make Fonts Here* folder. This folder contains the FONT MAPPER utility and the support files necessary to create the LJ/DJ font suitcases as presented in Chapter 4—INSTALLING FONTS. Experienced Macintosh users may wish to combine the contents of the *Step 2 - Make Fonts Here* folder with other font handling utilities located on another diskette or on a start-up diskette. Feel free to do so. The only restriction is that the font suitcase generated by the FONT MAPPER requires the FONT/DA MOVER version 3.8 or higher to transfer LJ/DJ fonts into your System file.

Your next step is to run the FONT MAPPER utility and generate a suitcase of LJ/DJ fonts for use with your printer. Turn to Chapter 4—INSTALLING FONTS.

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## CHAPTER 4

# INSTALLING FONTS



This chapter completes the *MacPrint* installation. Each of the following four sections describes a specific program or procedure to accomplish (1) the construction of font suitcases, (2) the decompression of Compugraphic fonts, (3) the addition of fonts to your System file, and (4) the selection of the *MacPrint* driver for use with your Macintosh. Each of the following sections applies to all *MacPrint* installations and should be reviewed by both *MacPrint* installers and users.

- FONT MAPPER
- COMPUGRAPHIC FONTS
- FONT/DA MOVER
- CHOOSER

Using the Compugraphic fonts is optional; the three other procedures must be executed to run *MacPrint*.

## FONT MAPPER

Even for experienced Macintosh users, the FONT MAPPER is a new kind of utility. Its function is to create a suitcase of Macintosh screen fonts that represent both the internal (built-in) and font cartridge typefaces that are available for the LaserJet and DeskJet printers. The FONT MAPPER creates LJ/DJ fonts that provide your Macintosh with the ability to display these fonts on your screen. This means that the spacing, margins, headers, graphics, cells, etc. that you see on your screen actually represent the way your documents will look when you print them.

## Using the FONT MAPPER

### CAUTION

If you are using Adobe Type Manager (ATM), be sure to turn it off before running FONT MAPPER to create your printer and cartridge fonts. If you don't, the fonts that are created will be missing some characters for screen display although they will print properly. Once your fonts are created, you may turn ATM back on, as it is fully compatible and supported by *MacPrint* during normal printing operations.

To turn off ATM, you may either drag the two ATM files from your System Folder or use the Control Panel to deselect ATM. In either case, you will then need to reboot your Macintosh for this change to take effect. Then run FONT MAPPER to create the fonts you need for your printer and cartridges. When you're done using FONT MAPPER, turn ATM back on.

This procedure allows you to create one or more suitcases of LJ/DJ fonts:

1. Find your FONT MAPPER utility.

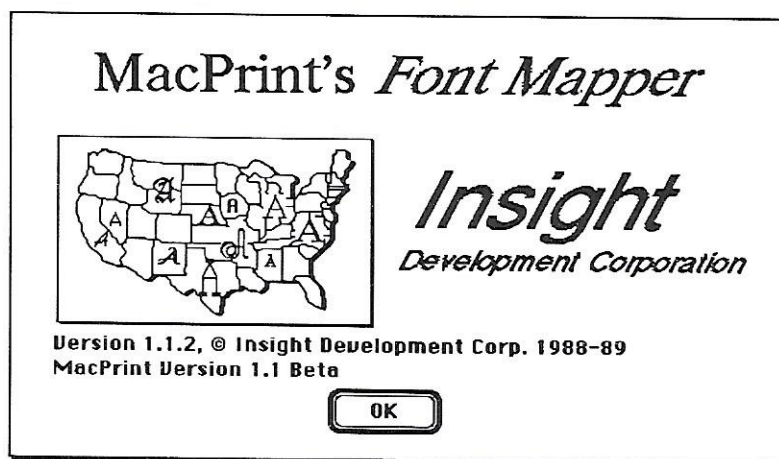


Font Mapper

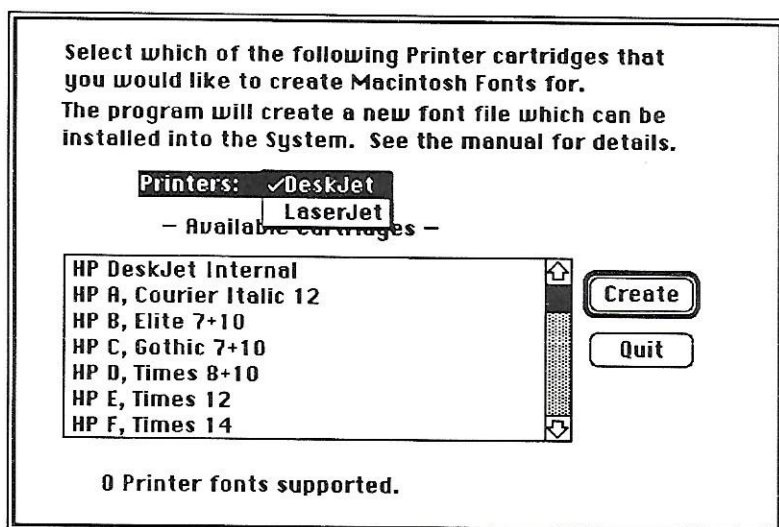
On hard disk systems it is located in the folder you chose when you followed the procedure in Chapter 3—INSTALLING *MACPRINT*. (Usually it's in the *Step 2 - Make Fonts Here* folder located in your System Folder.)

On systems without a hard disk, your FONT MAPPER is in the *Step 2 - Make Fonts Here* folder on the *MacPrint Program* diskette.

2. Double-click the FONT MAPPER icon to execute it.
3. Click the **OK** button to continue.



4. Click on **Printers** to identify the family of printers the FONT MAPPER is to work with.

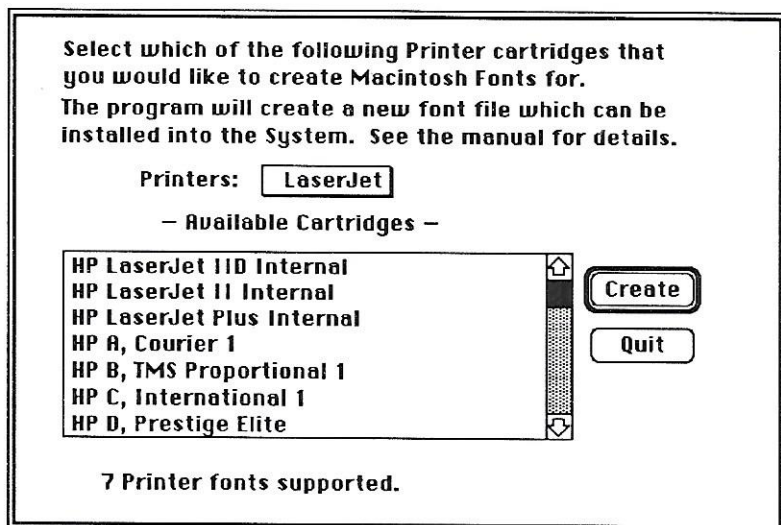


If your printer family does not appear on the screen, the *Insight Folder* does not contain the cartridge file required for your printer selection. In this case, return to Chapter 3—INSTALLING MACPRINT and repeat the installation of the *Insight Folder* to the System Folder.

If you receive a warning message like the following, stating that you do not have any data files in the "Insight Folder," you either may not have the "Insight Folder" in your System Folder, or it may be empty. In either case, return to Chapter 3—INSTALLING MACPRINT and repeat the installation of the *Insight Folder* to the System Folder.



5. Listed in the scroll box are all of the LaserJet (or DeskJet) internal and cartridge fonts supported by *MacPrint* for the printer type you specified in the preceding step. Please see Appendix B—MACPRINT FONT CARTRIDGES for a complete list of all font cartridges that *MacPrint* supports.



Click one of the choices at the top of the list that represents your printer's internal font cartridges.

Then, if you have any font cartridges, point to and shift-click the cartridge(s) for which you would like to create LJ/DJ fonts. Notice that as cartridges are selected (or removed) the bottom line of the dialog box informs you of the total number of fonts to be created.

Most people have no more than one or two font cartridges. If your cartridges are plugged into your printer all of the time, create one suitcase to represent all of your available typefaces.

If you use several different font cartridges, *DO NOT* place all of them in a single suitcase. Rather, create different suitcases for different cartridges. (If your printer can accommodate more than one cartridge at a time, we recommend creating a separate suitcase for each combination of cartridges that you are likely to use.) The reason for this is that Times Roman in one cartridge may have different characteristics than Times Roman in another cartridge. If both of these "same name" fonts appear in the same suitcase, *MacPrint* has no way of knowing which you want to use.

Click the **Create** button to continue, or  
Click the **Quit** button to return to the desktop.

For example, if you have a DeskJet with HP font cartridges G and H installed, first select "HP DeskJet Internal." Then hold down the Shift key while you select "HP G" and "HP H." (You may need to scroll the list to select these items.) Then click the **Create** button. This will build a font suitcase containing Macintosh screen fonts matching the DeskJet's internal fonts plus those fonts on the G and H cartridges. Use this suitcase whenever you have the G and H cartridges installed in your printer.

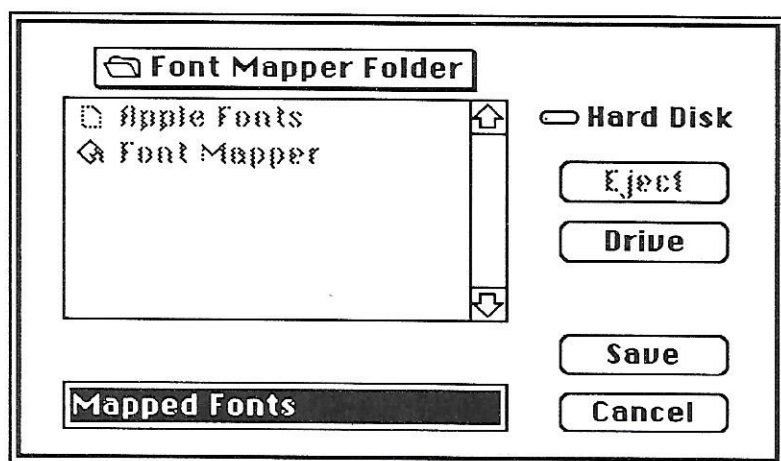
6. You may give the created font suitcase a name of your choice, or accept the default name, *Mapped Fonts*.

Click the **Eject** button if you want to remove the current diskette in a disk drive.

Click the **Drive** button if you want to switch between the disks available on the desktop.

Click the **Save** button if you want to complete the suitcase naming task by saving the suitcase in the selected folder and returning to the Select Cartridges dialog.

Click the **Cancel** button if you do *not* want to create the suitcase, and you'll return to the previous dialog box.



7. As the FONT MAPPER creates the font suitcase, its progress is displayed in the form of a shadow-filled box. Click the **Cancel** button to terminate the creation of the current suitcase.

You may notice that there are more printer fonts supported than Mac fonts created. For a given size of a fixed pitch typestyle, only one Mac font must be created for each printer font, even if there are several styles (plain, bold and italic) of the printer font.

**Supporting 41 Printer Fonts.  
9 out of 24 Mac Fonts created.  
(Note: 0 Mac fonts were skipped  
because they were duplicates of fonts  
already created.)**



**Cancel**

After the suitcase is fully built, FONT MAPPER displays information about the number of printer fonts that are being supported by that suitcase and the number of fonts that were built to support them.

**Supporting 41 Printer Fonts.  
24 out of 24 Mac Fonts created.  
(Note: 0 Mac fonts were skipped  
because they were duplicates of fonts  
already created.)**



**Done!**

8. Clicking the **Done** button returns you to the dialog box allowing you to select different sets of cartridges to create additional suitcases. When you have finished, click the **Quit** button to leave the FONT MAPPER and return to the desktop.

The resulting suitcase (or suitcases) of fonts is now available to transfer the LJ/DJ fonts into the System file.

Most users will use the Macintosh FONT/DA MOVER to transfer fonts as explained later in this chapter. However, if you have multiple font cartridge suitcases, the FONT/DA MOVER is cumbersome to use. In this case, you may want to investigate other font management utilities, such as SUITCASE II or FONT JUGGLER.

## COMPUGRAPHIC FONTS



CS Triumvirate.sit



CS Times.sit



CS Symbol.sit



CS Courier.sit

The *MacPrint Fonts* diskette contains four files. Each file contains a family of Macintosh compatible fonts supplied by a licensing agreement between Insight Development Corp. and AGFA Compugraphic Division. They are named:

- *CS Times.sit* (a proportionally-spaced, serif font)
- *CS Triumvirate.sit* (a proportionally-spaced, sans-serif font, similar to Helvetica)
- *CS Courier.sit* (a mono-spaced font)
- *CS Symbol.sit* (a mono-spaced font of special symbols)

Each of the four font families include 9, 10, 12, 14, 18, 24, 36, 40, 48, 56, 72, and 96 point sizes. (Illustrations of these fonts are shown in Chapter 5, Figures 5-2, 5-3, and 5-4.)

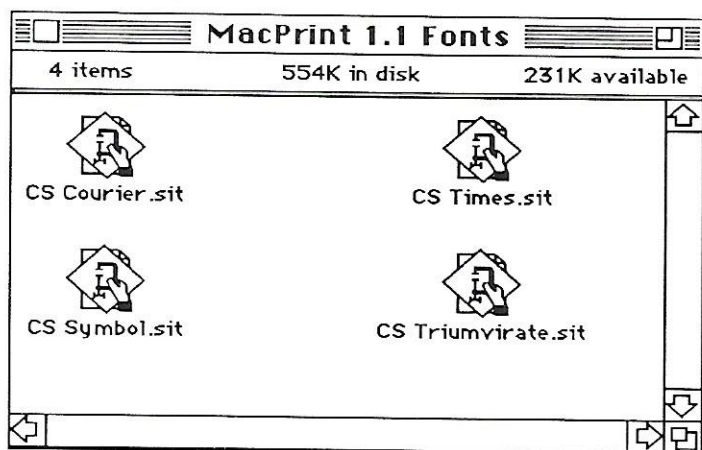
As supplied, each of the files has been compressed so that all fit onto one diskette. They were created by using a shareware program called Auto Unstuffit. Insight Development Corp has purchased a license to use this program for distribution purposes.

The method you use to decompress these files and to create a font family suitcase from each one depends on your hardware configuration. The following procedures assume you are working with a backup copy of the *MacPrint Fonts* diskette.

## Hard Disk Decompression

The following procedure copies and then decompresses each of the .sit files into a font family suitcase on a hard disk.

1. Insert the *MacPrint Fonts* diskette into any available disk drive. If the *MacPrint Fonts* window does not appear on the desktop, double-click on its icon to open it.



2. Copy all of the .sit files you want to use to the *Step 2 - Make Fonts Here* folder on your hard disk. You can copy these files to another location if you prefer.

3. Eject the *MacPrint Fonts* diskette from the drive.
4. Decompress any one of the .sit files by double-clicking on its icon. The decompression process is fully automatic. When complete, the program will return you to the desktop and your new suitcase is displayed in the window.
5. The .sit file that you just decompressed is no longer needed by *MacPrint* and takes up a lot of disk space. We recommend that you drag it into the Trash to remove it from your disk.
6. Repeat steps 4 and 5 for each of the remaining .sit files.

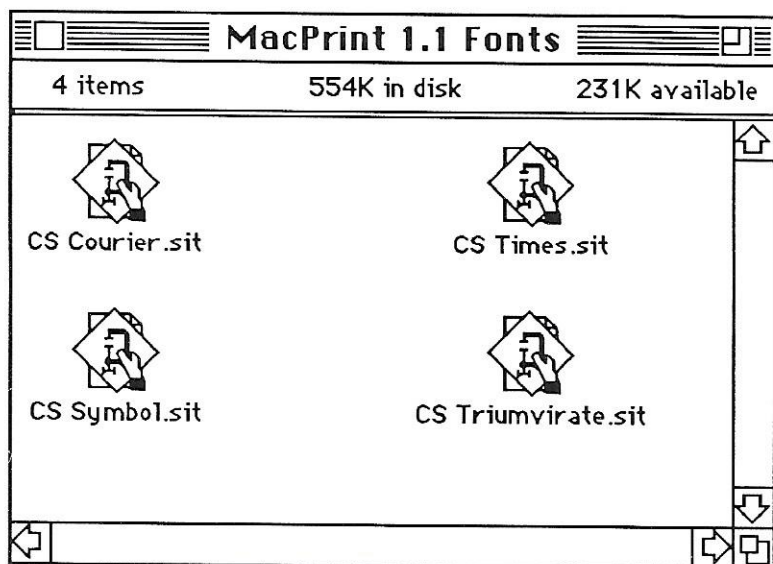
The resulting font suitcases are now available for transfer into the System file as explained in the FONT/DA MOVER section of this chapter.

For the best results when installing these fonts into your System file, treat each family as a set and install all 12 of the font sizes at the same time. See Chapter 5—OPTIMIZING *MACPRINT* for further explanation.

### ***Decompression With Two Diskette Drives***

The following procedure (1) creates a working copy diskette for a .sit file, and (2) decompresses the file into a font family suitcase of the same name using two diskette drives. Due to the size of the resulting font suitcase, each .sit decompression requires its own 800 Kbyte diskette. You will need up to four blank diskettes, depending on how many of the .sit files you wish to decompress.

1. Start your Macintosh as you normally would with a start-up diskette in either drive.
2. Using the File menu, eject your start-up diskette. Notice that the start-up diskette icon turns gray. Both of your disk drives should now be empty.
3. Insert the *MacPrint Fonts* diskette into one of your disk drives. If the *MacPrint Fonts* window does not appear on the desktop, double-click on its icon to open it.



4. Insert a new diskette into the vacant disk drive and format it for Two-Sided operation. Title this diskette with one of the following names as appropriate:
  - CS Times
  - CS Triumvirate
  - CS Courier
  - CS Symbol
5. Copy one of the .sit files you want to use from the *MacPrint Fonts* diskette to your new diskette.
6. Open your new diskette by double-clicking on its icon.
7. Decompress the .sit file by double-clicking on its icon. The decompression process is automatic. A dialog box shows the progress of the decompression.
8. The .sit file that you just decompressed is no longer needed by *MacPrint*. We recommend that you drag it into the Trash to remove it from your disk.

9. Remove your newly created diskette from your Macintosh by dragging its icon to the Trash icon. The diskette is ejected from the drive and its icon disappears.
10. Repeat steps 4 through 9 for the remainder of the .sit files that you want to decompress.
11. Eject your *MacPrint Fonts* diskette.

On each of your newly created diskettes is a suitcase of fonts available for transfer into the System file as explained in the FONT/DA MOVER section of this chapter. However, don't expect to be able to transfer every font family or even every size of one family since it's unlikely that your start-up diskette has sufficient free space.



For best results determine which font sizes you are most likely to require and transfer sets of sizes as follows:

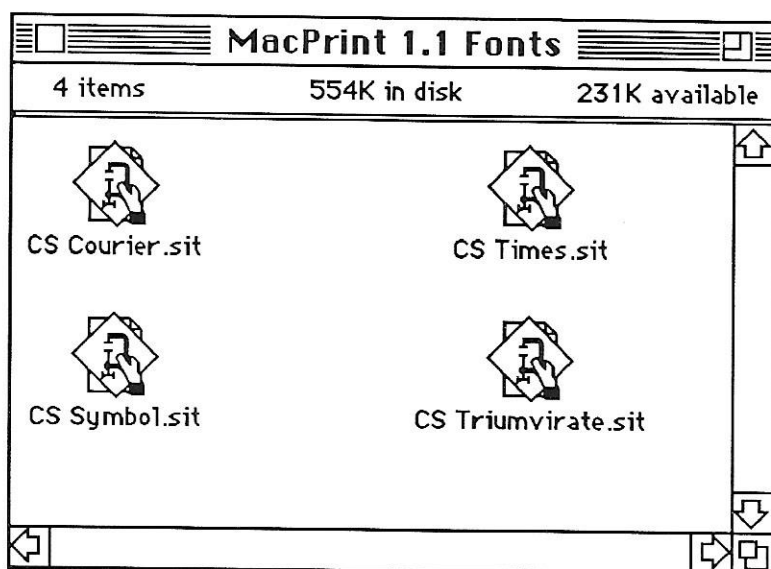
<u>To print point size:</u>	<u>Transfer to System file:</u>
9	9, 18, 36
10	10, 40
12	12, 24, 48
14	14, 56
18	18, 36, 72
24	24, 48, 96
36	36, 72
40	40
48	48, 96

See Chapter 5—OPTIMIZING *MACPRINT* for further explanation.

## Decompression With One Diskette Drive

The following procedure (1) creates a working copy diskette for a .sit file, and (2) decompresses the file into a font family suitcase of the same name using one diskette drive. Due to the size of the resulting font suitcase, each .sit decomposition requires its own 800 Kbyte diskette. You will need up to four blank diskettes depending on how many of the .sit files you want to decompress.

1. Start your Macintosh as you normally would with a start-up diskette in your drive.
2. Using the File menu, eject your start-up diskette.
3. Insert the *MacPrint Fonts* diskette into your disk drive. If its window does not appear on the desktop, double-click on its icon to open it.



4. Using the File menu, eject your *MacPrint Fonts* diskette. Notice that all of the file icons turn gray.
5. Insert a new diskette into the vacant disk drive and format it for Two-Sided operation. Title this diskette with one of the following names as appropriate:

- CS Times
  - CS Triumvirate
  - CS Courier
  - CS Symbol
6. Copy one of the .sit files you want to use from the *MacPrint Fonts* diskette to your new diskette. Follow the on-screen instructions to swap diskettes until the copy operation is complete.
  7. Open your new diskette by double-clicking on its icon.
  8. Decompress the .sit file by double-clicking on its icon. The decompression process is automatic. A dialog box shows the progress of the decompression. You will again be asked to swap diskettes, but this time with your start-up diskette. Follow the on-screen instructions until the decompression process is complete.
  9. The .sit file that you just decompressed is no longer needed by *MacPrint*. We recommend that you drag it into the Trash to remove it from your disk.
  10. Repeat steps 2 through 9 for the remainder of the .sit files that you want to decompress.

On each of your newly created diskettes is a suitcase of fonts available for transfer into the System file as explained in the FONT/DA MOVER section of this chapter. However, don't expect to be able to transfer every font family or even every size of one family since it's unlikely that your start-up diskette has sufficient free space.



For best *MacPrint* results determine which font sizes you are most likely to require and transfer sets of sizes as follows:

To print point size:Transfer to System file:

9	9, 18, 36
10	10, 40
12	12, 24, 48
14	14, 56
18	18, 36, 72
24	24, 48, 96
36	36, 72
40	40
48	48, 96

See Chapter 5—OPTIMIZING *MACPRINT* for further explanation.

## **FONT/DA MOVER**

The FONT/DA MOVER is the Macintosh utility used to copy fonts from the suitcase files you just created to your System file. The following procedure copies the LJ/DJ and CS suitcases you just created. For a complete discussion of the FONT/DA MOVER, refer to your Macintosh User's Guide. *MacPrint* requires FONT/DA MOVER version 3.8 or higher.

If you want to use SUITCASE II or FONT JUGGLER to move your suitcases, skip this section and refer to the manuals for those utilities instead.

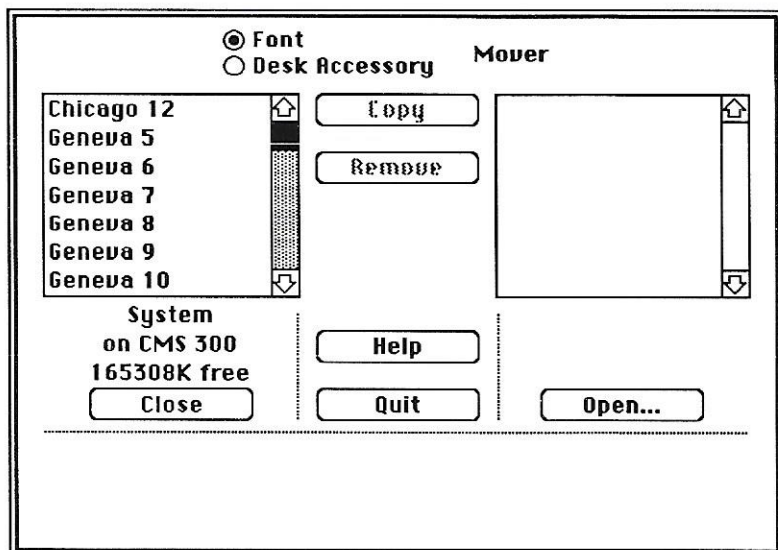
### **Using the FONT/DA MOVER**

1. Find the FONT/DA MOVER utility. A copy may be found in the same folder as the FONT MAPPER (generally in the *Step 2 - Make Fonts Here* folder). On systems without a hard disk, there is a copy on the *MacPrint Program* diskette.



Font/DA Mover

Double-click on the FONT/DA MOVER icon to open the utility. The FONT/DA MOVER window appears with the Font button selected at the top. Listed in the left hand scroll box are the fonts currently included in the start-up System file.

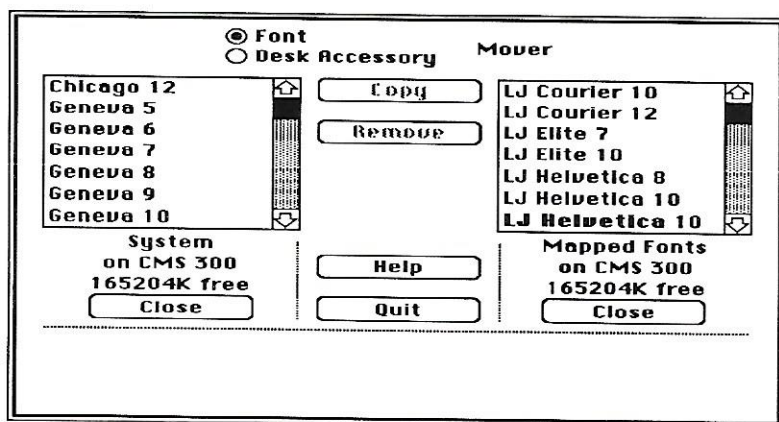


2. Click on the right-hand **Open** button to display the file locating dialog box. Use this dialog box to switch disks and/or move through the folder hierarchy system to find the suitcases of fonts you have created.

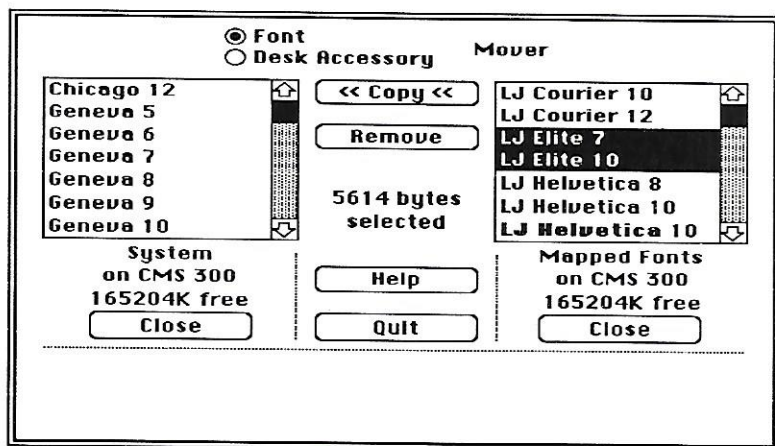
#### NOTE

Mapped Fonts is the default name of the LJ/DJ font suitcase assigned by the FONT MAPPER utility. You may have used a different name.

3. Select and open the suitcase of your choice by double-clicking on its name. The locating dialog box disappears, returning to the FONT/DA MOVER dialog box. Listed in the right hand scroll box are all the fonts in the suitcase you selected.



4. Select the fonts you want copied to the System file by clicking on the font's name in the right-hand scroll box. To select more than one font at a time, hold down the shift key and click (or drag) to select additional fonts.



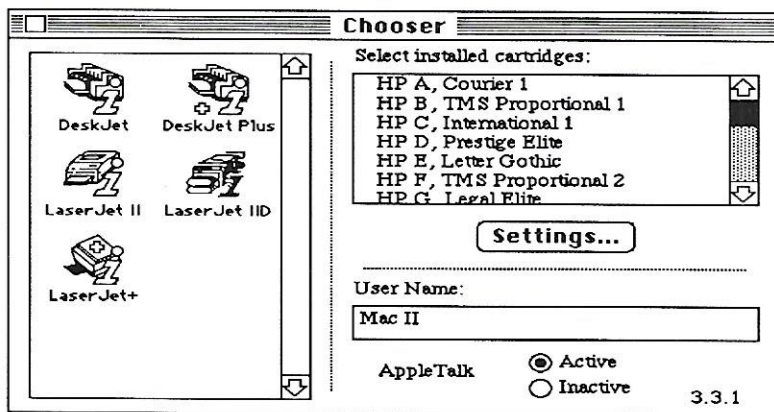
5. Click the **Copy** button to copy the selected font(s) in the direction the arrows point. This copies the fonts from one list of files to the other list of files. If you copy a file to a list that already has a file of the same name, the new file replaces the existing one.
6. Click the right hand **Close** button to close the selected font suitcase.
7. Repeat steps 2 through 6 to add additional fonts from other suitcases.
8. Click the **Quit** button to return to the desktop.

## CHOOSE

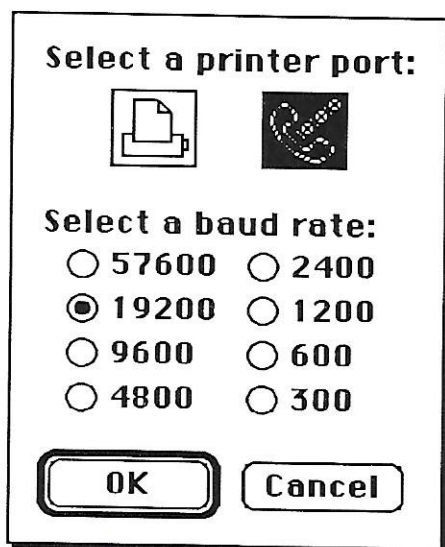
The CHOOSE is a Desk Accessory (DA) selected from the Apple menu located at the top of the Macintosh screen. It allows you to select various printers and other devices. Because it is a DA, it is available no matter which application you are using. A complete discussion of the CHOOSE is contained in your Macintosh documentation.

### Using the CHOOSE

1. Select the CHOOSE under the Apple menu. The CHOOSE window appears.



2. Point to the *MacPrint* driver that corresponds to your printer (LaserJet IID, LaserJet series II, LaserJet+, DeskJet PLUS or DeskJet) and click. The selected driver will highlight. The scroll box then displays the external font cartridges supported by *MacPrint* and the **Settings** button appears.
3. If a font cartridge is installed in your printer, point to and click its name. (If you're using a printer that can accommodate two font cartridges, you can select two.)
4. Click the **Settings** button to choose between the modem and printer ports, and to select the baud rate.



Notice that when AppleTalk is active, the printer port can still be selected. Certain AppleTalk hardware allows a printer to be connected via the network. The 19,200 baud rate is the *MacPrint* default. Select the alternative 9600 baud rate if you're sharing your printer with another computer that cannot support the higher setting.

If you have selected the printer port while AppleTalk is active, you will receive a warning letting you know that a hardware adapter is required. This is because the LaserJet and DeskJet printers do not directly understand AppleTalk and must have

an external translator. Several devices are on the market that accomplish this task. We have specifically tested *MacPrint* with the Shiva NetSerial® X232 product and found that it is fully compatible. See Chapter 7—APPLICATION NOTES for additional information.



**Port is used by AppleTalk**

**You may only use an AppleTalk port to print if you have a special hardware adapter.**

**OK**

**Cancel**

**NOTE**

The most common reason a printer won't work with *MacPrint* is that you haven't chosen the port that the printer is plugged into. Please double-check your cable connection and your port selection.

Click the **OK** button to activate your selection. Click the **Cancel** button if you do not want to make any changes.

5. Click the Close Box to return to the desktop.

**NOTE**

If you want to change printers or font cartridges, you will need to use the CHOOSEr again to inform *MacPrint* of the new printer and/or font cartridge.

To change cartridges on any LaserJet printer, first take it OFF LINE, then change the cartridges, and return the printer ON LINE.

To change cartridges on any DeskJet printer, it is very important that you turn the printer **off** before you change cartridges—failure to do so will damage your cartridge.





# OPTIMIZING MACPRINT

This chapter is your best guide to realizing the full potential of *MacPrint*. All *MacPrint* users, from beginners to power users, should review this information. It will help you use *MacPrint* most effectively to get the results you want.

This chapter is divided into two sections. They are:

- *How MacPrint Prints:* The Printer Font and QuickDraw Graphics methods of printing characters are discussed. The use of font, size, and style selections to assist in determining the printing method are explained. QuickDraw Low, Medium, and High quality printing are discussed.
- *Optimizing Speed & Quality:* Printing quality and speed using both the Printer Font and QuickDraw methods are presented.

## ***How MacPrint Prints***

Your goal in printing is to obtain the best quality output in the least amount of time. Yet often, higher quality output requires more time to print. This can be especially true with the Macintosh, since one of its strengths is its ability to manipulate graphic images. The transfer of these images over a serial interface to your printer can take a significant amount of time.

*MacPrint* supports two methods of printing to non-Apple printers. One printing method is the Printer Font method. *MacPrint* uses the Printer Font method whenever the fonts you want to use are available at your printer. They can be either your printer's font cartridge or

internal fonts. When you print using the Printer Font method, there is NO trade-off between quality and speed.



#### **IMPORTANT NOTE**

Output produced using the Printer Font method is always printed at the highest resolution your printer supports and at the highest possible speed. Whenever possible, use the Printer Font method.

Sometimes you may not be able to get the results you want by limiting yourself to your printer's internal and cartridge fonts. Therefore *MacPrint* also supports the traditional Macintosh QuickDraw Graphics printing method. The QuickDraw method is used whenever you want to print fonts that are not available as internal or cartridge fonts or when you want to output graphics.

The QuickDraw method gives you the choice of printing at High, Medium, or Low quality. When you use this method, you will be trading off your need for quality against your desire for printing speed. The better the quality setting, the longer it takes to print.

The key to understanding and optimizing your printer's output is to master both of these printing methods. Experimenting is encouraged as is working with all of the fonts available to you.

All of the discussions in this section apply to portrait printing using any of the printers that *MacPrint* supports. Individual printer capabilities, including landscape and envelope output, are discussed in the separate sections pertaining to each printer in Chapter 6—**USING YOUR PRINTER**.

## ***Printer Font Method—Printing LJ/DJ Fonts***

The LaserJet and DeskJet family of printers use font cartridges and your printer's internal fonts to provide very rapid, high quality text output. The various typefaces are stored as absolute bitmaps in the cartridge or the internal font and are therefore not scalable by the computer. Being a part of the printer, they are also not readable by any computer connected to the printer, so there is no way for a connected computer to "custom" scale a cartridge or internal font.

The *MacPrint* FONT MAPPER (as explained in the FONT MAPPER section of Chapter 4) creates Macintosh screen fonts that are represented on your computer as LJ/DJ fonts. The metrics (character spacing, etc.) of each LJ/DJ font corresponds to one of your printer's internal or cartridge fonts.

Using the Printer Font method always results in:



- *The highest quality of printer output*
- *The maximum printing speed*

It is definitely to your advantage to use the Printer Font method whenever possible. Figure 5-1, found later in this chapter, shows a document that was printed using the Printer Font method with the "Z" font cartridge. It was printed on a LaserJet IID using FullWrite Professional™ with a Macintosh II. This page required 9 seconds to print.

The Macintosh menus allow you to create hundreds of printer fonts by combining font, size, and style selections. If the combination you select exists as an internal or cartridge font, it is printed using the

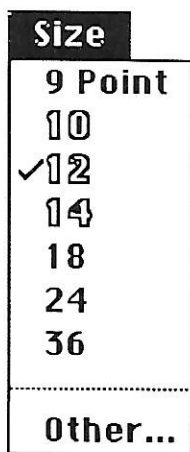
Printer Font method. Since this method offers you the advantages of both speed and quality, you need to know how to select fonts that are printed using this method. Fortunately, there is a fairly straightforward way of determining this:

1. Identify the fonts that are available to you as internal and cartridge printer fonts.

This is already done. You accomplished this during the *MacPrint* installation when you used the FONT MAPPER to create the fonts, the FONT/DA MOVER to add the fonts to your System file, and the CHOOSER to select the *MacPrint* driver and installed printer cartridges. All that remains is to use the menu of fonts to select any LJ/DJ font.

2. Identify the point sizes of the LJ/DJ fonts that are available at your printer.

Usually, the menu of sizes will help you identify which font sizes are available at the printer. As you look at the menu of sizes, notice that there are two types of numbers. One type is represented by a solid number and the other by an “outlined” number. *The outlined sizes are those that are available at your printer as an internal or cartridge font.*



The Macintosh does not provide a way to select fractional point sizes. To get a fractional point size for your output, round off the point size you want to use and select the rounded

number from the Macintosh menu. For example, if you want to use a 3.3 point size, select 3 from the Macintosh menu. Your output will appear in 3.3 point size. Similarly, if you want to use an 8.5 point size, select 9 from the size menu. Your document will actually be printed using the 8.5 point size.

Not all applications show all sizes, especially sizes smaller than 9 point. Most word processors do provide a way of getting to these sizes, either through an "Other" selection or through "Smaller/Larger" menu items.

#### NOTE

Unfortunately, a small number of application programs won't outline the font sizes available at the printer. If you're using one of these programs, and you know that the size (and style) of the LJ/DJ font you've selected is available as an internal or cartridge font, select it anyway. It will be printed using the Printer Font method.

- Find the Style menu for your application (application dependent, but usually located in the Menu Bar) and select the character's final attribute.



Here things get a little vague since there can be a tremendous variation of available styles between applications.

**Plain** Always available as Printer Font. If only the bold version is available on a font cartridge, both plain and bold selections are printed as bold.

**Bold** Available if bold is included in the internal and/or cartridge font. Some of the larger typeface sizes (14 and up) only include a bold style on the LaserJet.

The DeskJet has bold style available for all fonts.

*Italic* Available if italic is included in the internal and/or cartridge font.

Underline Always available in combination with any already existing font.

**Outline** Not available as Printer Font.

**Shadow** Not available as Printer Font.

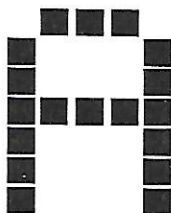
4. Determine which specific characters from the Macintosh symbol set (letters, punctuation, symbols, special characters, etc.) the Printer Font method can print directly.

Again this is a little vague. The Macintosh character set is exceptional and contains certain symbols that are not available on most internal and cartridge fonts. A good rule of thumb is *if the character is imprinted on a keyboard key cap, then MacPrint will print it using the Printer Font method.* There are certain exceptions to this rule, so if in doubt, try it. Often the results are impressive.

If you want more information about the symbol sets available on your printer, please see the documentation included in your printer's manuals and font cartridges.

## QuickDraw Graphics—Printing Macintosh Fonts

The QuickDraw printing method is the second method used by *MacPrint* to send characters to your printer. In this method, *MacPrint* sends the graphic bitmap of the individual dots to the printer. All screen and printer characters are actually made up of a pattern of dots. For example, a blow-up of a Monaco font letter “A” looks like the following:



When you print using QuickDraw graphics you control the print quality of your output. Consider the following:

- The Macintosh computer screen display is made up completely of QuickDraw graphics. The screen resolution is 72 dots per inch in both the horizontal and vertical directions.
- The LaserJet/DeskJet family of printers can receive graphic information at 75 dpi, 150 dpi, and 300 dpi (dots per inch).

As you can see, the printer is capable of resolutions considerably higher than that of the screen. *MacPrint*, together with QuickDraw, can print at any of the three printer resolutions, even though the screen resolution remains constant.

There is one other important consideration when printing using the QuickDraw method. Higher resolutions require significantly more time to print than lower resolutions, since the higher the resolution, the more information must be sent to the printer.

## ***Low Quality Printing***

When printing in Low Quality, the printer receives QuickDraw characters at 75 dpi. The Macintosh screen resolution is 72 dpi. Because the difference is so small that it is rarely noticeable, QuickDraw assumes that the character displayed on the screen is the character to be sent to the printer. In a true sense, what you see on the screen is what you get from the printer.

Low Quality printing is the fastest of the three QuickDraw printing methods. Because of its speed it is generally preferred over either Medium or High Quality for "draft" quality documents.

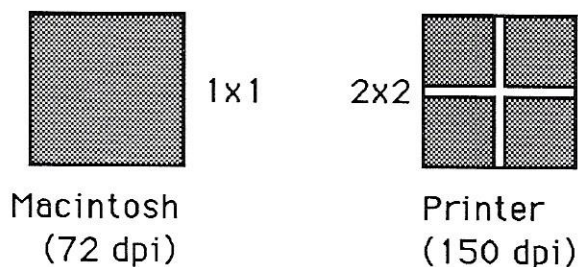
There are no special System file requirements for printing in the Low Quality setting.

Figures 5-2, 5-3, and 5-4, found later in this chapter, show the same document printed at Low, Medium, and High Quality. They were printed on a LaserJet IID using FullWrite Professional with a Macintosh II.

Since Figure 5-2 shows 9 point fonts printed at Low Quality, only the 9 point version of each font was required to produce this output. Figure 5-2 took 10 seconds to print. Note that Figure 5-1 shows a document printed with equivalent font cartridge fonts from the "Z" font cartridge. Though the quality of this output is the best of all the samples, it required only 9 seconds to print. Again the reminder, use the Printer Font method to get both the best quality and fastest speed.

## ***Medium Quality Printing***

When printing in Medium Quality, the printer receives QuickDraw characters at 150 dpi. The Macintosh screen resolution remains constant at 72 dpi. At Medium Quality the printer can put twice the number of dots in the same vertical or horizontal inch as the Macintosh screen. This allows printing four times the number of dots, but requires sending four times the amount of data to the printer to produce the final image.



*MacPrint* therefore assumes that the character to be printed should be twice the point size of the character displayed on the screen and requests this larger size from the system.

*For example:*

If the Macintosh is sending a 12 point character to the printer, *MacPrint* actually requests a 24 point character. The result is then a 12 point, 150 dpi resolution character.

To achieve the best results with Medium Quality printing, you need to include in the System file font sizes that are twice as big as the fonts you want to print. If such sizes are not available, include any larger sizes you have that are multipliers of the size you want to print. (For example, if you want to print a 12 point font at Medium Quality, you'll get the best results if you have a 24 point font in your System file. If you don't have a 24 point font, but you do have a 48 point font, include it.) If a suitable larger size isn't available in your System file, the results are the same as if you'd selected Low Quality. In this case, there is no benefit in choosing Medium Quality over Low Quality for your text, although your graphics may still benefit from the Medium Quality selection.

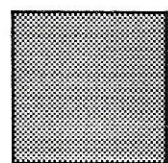
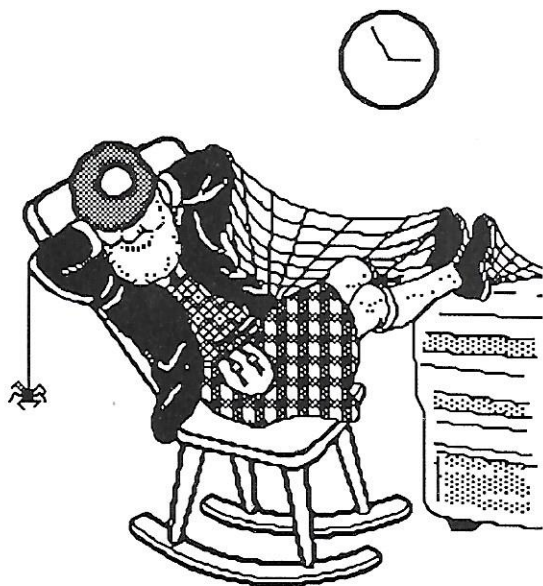
In practice, the Medium Quality selection is generally used (1) if you're using one of the LaserJet printers and you don't have enough printer memory to complete a full page of printing using the High Quality setting and (2) for print jobs where speed is more important than quality, but Low Quality is not considered adequate.

Figures 5-2, 5-3, and 5-4 show the same document printed at Low, Medium, and High Quality. They were printed on a LaserJet IID using FullWrite Professional with a Macintosh II.

Since Figure 5-3 shows 9 point fonts printed at Medium Quality, both the 9 and 18 point versions of each font were required to produce this output. Figure 5-3 took 23 seconds to print.

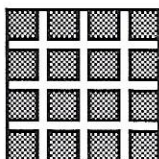
## High Quality Printing

When printing in High Quality, the printer receives QuickDraw characters at 300 dpi. The Macintosh screen resolution remains constant at 72 dpi. At High Quality the printer can put 4 times the number of dots in the same vertical or horizontal inch as the Macintosh screen. This allows printing 16 times the number of dots, but requires sending 16 times the amount of data to the printer to produce the final image.



1x1

Macintosh  
(72 dpi)



4x4

Printer  
(300 dpi)

*MacPrint* therefore assumes that the character to be printed should be 4 times the point size of the character displayed on the screen and requests this larger size from the system.

*For example:*

If the Macintosh is sending a 12 point character to the printer, *MacPrint* actually requests a 48 point character. The printed result is a 12 point, 300 dpi resolution character.

To achieve the best results with High Quality printing, you need to include in the System file font sizes that are four times as big as the fonts you want to print. If such sizes are not available, include the largest sizes you have that are multipliers of the size you want to print. (For example, if you want to print a 12 point font at High Quality, you'll get the best results if you have a 48 point font in your System file. If you don't have a 48 point font, but you do have a 96 point font, include it.) If a suitable larger size isn't available, the results will not appear as High Quality. In this case, there is little benefit in choosing High Quality for text, although your graphics may still benefit from the High Quality selection.

Under all circumstances where graphics or QuickDraw characters exist, the High Quality selection takes the longest time to print. In practice, the High Quality selection is generally used for print jobs where the highest possible quality is required without consideration for the time required to print the document.

Figures 5-2, 5-3, and 5-4 show the same document printed at Low, Medium, and High Quality. They were printed on a LaserJet IID using FullWrite Professional with a Macintosh II. Since Figure 5-4 shows 9 point fonts printed at High Quality, both the 9 and 36 point versions of each font were required to produce this output. Figure 5-4 took 68 seconds to print.

## ***The CS Font Families***

Included in the *MacPrint* package is a diskette titled *MacPrint Fonts*. This disk contains four files that each contain a complete family of fonts in the following sizes:

9, 10, 12, 14, 18, 24, 36, 40, 48, 56, 72, and 96 points.

These sets of 12 sizes optimize QuickDraw Graphics printing at Low, Medium, and High Quality settings for the following point sizes:

9, 10, 12, 14, 18, and 24 points.

As the four files come on the diskette, each family is in a compressed format and must be decompressed before it can be used. The COMPUGRAPHIC FONTS section of Chapter 4 explains how to accomplish this.

### ***Combining QuickDraw Graphics and Printer Fonts***

When you've selected an LJ/DJ font, *MacPrint* first attempts to print each character using the Printer Font method. Any character that *cannot* be printed using the Printer Font method for whatever reason (font, size, style, orientation, or symbol set) is printed as a rectangle. A rectangle on your output indicates that the character you're printing is not available as an LJ/DJ font. You will have to print these characters using the QuickDraw Graphics method.

To get High Quality output for a character that cannot be printed using the Printer Font method, print the character in a bitmapped font for which you have the four times font size in your System file. We suggest using one of your Compugraphic CS fonts, since we have supplied you with large sizes of those fonts. Make sure you select High Quality printing for the document. The Quality setting won't affect the way your LJ/DJ fonts are printed, since the Printer Font method always prints at the highest possible quality and the fastest possible speed. However, the Quality setting will affect the characters printed using the QuickDraw method.









## Optimizing Speed & Quality



It would probably be no surprise if we were to state that you can either have high speed or high quality, but not both. With *MacPrint* though, you can have both at the same time!

### Printing Speed

The amount of information sent from the Macintosh to your printer governs the speed with which your document is produced. Graphic information always contains a large amount of information per square inch and therefore requires a long time to print.

Using the LJ/DJ fonts with the printer supported sizes and styles directs *MacPrint* to use the Printer Font printing method and results in the fastest printer output. The printer always prints these fonts at 300 dpi, though only a small amount of information must be sent to the printer.

All other printing is accomplished using the QuickDraw method. Printer speed is governed by the Quality setting you select. In summary:

<u>MacPrint Print Method</u>	<u>Printer Speed</u>
Printer Font method	fastest
QuickDraw / Low Quality	fast
QuickDraw / Medium Quality	medium
QuickDraw / High Quality	slow

Figures 5-2, 5-3, and 5-4 show the same document printed using the QuickDraw method at Low, Medium, and High Quality. Figure 5-1 shows a document printed with equivalent font cartridge fonts using the Printer Font method. They were printed on a LaserJet IID using FullWrite Professional with a Macintosh II. Figure 5-2, printed at Low Quality took 10 seconds to print. Figure 5-3, printed at Medium Quality required 23 seconds to print. Figure 5-4, printed at High Quality took 68 seconds. However, Figure 5-1, imaged using the Printer Font method is the highest quality of all the pages, yet it required only 9 seconds to print!

When Printer Font and QuickDraw methods are mixed in the same document, the overall printer speed is a function of the amount of graphics to be printed and the quality you select. The amount of time required to transmit LJ/DJ fonts is constant at all three qualities.

### Output Quality

Using the LJ/DJ fonts with the printer supported sizes and styles directs *MacPrint* to use the Printer Font Printing method, which always results in printed characters of the highest possible quality.

All other printing quality is governed first by the Quality setting you select, and second by the availability of 2 times and 4 times size fonts from the System file.

Assuming the System file includes all sizes required for all qualities of printing, the following is true:

<u>MacPrint Print Method</u>	<u>Printer Quality</u>
Printer Font method	300 dpi
QuickDraw / Low Quality	75 dpi
QuickDraw / Medium Quality	150 dpi
QuickDraw / High Quality	300 dpi

When Printer Font and QuickDraw methods are mixed in the same document, the LJ/DJ fonts are printed at 300 dpi, while the graphics portion is printed at the quality selected.

**NOTE**

Use the printer supported fonts, sizes, and styles (Printer Font method) for the highest quality and highest speed at the same time.

If you're using the QuickDraw method, use the Low Quality setting for faster printer speeds and the High Quality selection for final drafts.

**NOTE**

Some applications contain an option called Fractional Widths or Use Printer Spacing (or something similar). Often this option is found in the **Page Setup** dialog. *MacPrint* will produce higher quality output if this option is turned ON.



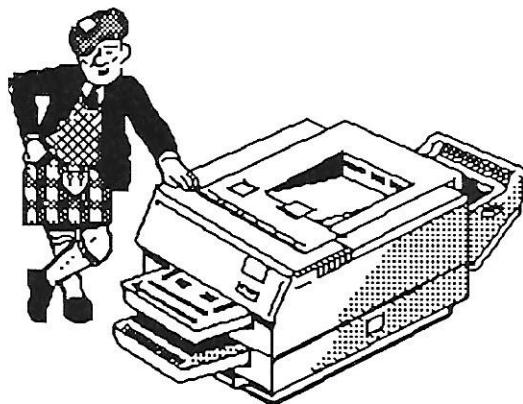
## CHAPTER 6

# USING YOUR PRINTER

This chapter is divided into separate sections by printer type. You only need to read the section pertaining to your printer. Each printer specific section discusses the **Page Setup** and **Print** commands as they appear when you select that printer. Also included are specific notes about portrait, landscape, and envelope printing for each printer.

## Using The LaserJet IID

You only need to read this section if you are using a LaserJet IID.



## Portrait Printing



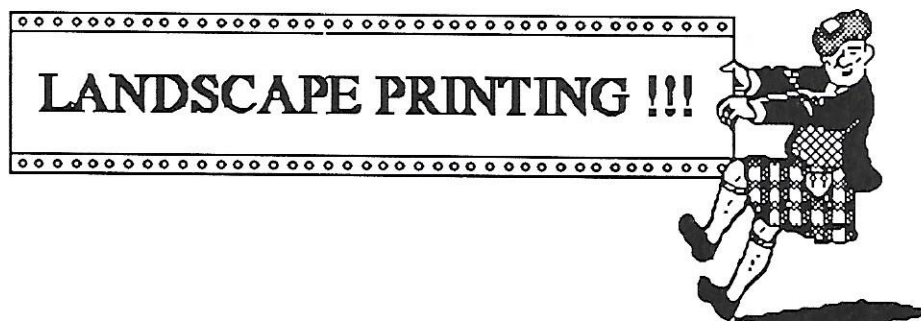
Printing a document in a normal manner, as opposed to sideways, is called portrait printing. All the information about the Printer Font and QuickDraw printing methods presented in Chapter 5—**OPTIMIZING MACPRINT** apply to portrait printing with the LaserJet IID. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

The LaserJet IID *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	10	Plain
LJ Courier	10	<b>Bold</b>
LJ Courier	10	<i>Italic</i>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Courier	12	<i>Italic</i>
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges will increase your selection. See Appendix B—*MACPRINT FONT CARTRIDGES* for listings of all supported font cartridges. If you're unsure which fonts you have available as internal and cartridge fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the PRINT FONTS button. The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun PRINT FONTS until you have a printout for all your cartridges.



Printing a document sideways on the page is called landscape printing. The LaserJet IID has the unique ability to rotate 90° any (portrait) internal or cartridge typeface. This feature allows any of the

LJ fonts (in supported sizes and styles) to be printed in both portrait and landscape orientations. Therefore, all of the discussions concerning the Printer Font and QuickDraw methods discussed in Chapter 5—OPTIMIZING MACPRINT also apply to landscape printing. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

The LaserJet IID *internal* fonts that result in landscape Printer Font printing are:

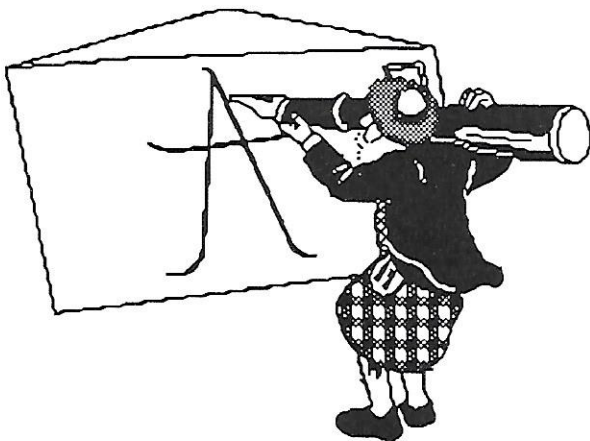
<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	10	Plain
LJ Courier	10	<b>Bold</b>
LJ Courier	10	<i>Italic</i>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Courier	12	<i>Italic</i>
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges will increase your selection. See Appendix B—MACPRINT FONT CARTRIDGES for listings of all the supported font cartridges. If you're unsure which fonts you have available as internal and cartridge fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the PRINT FONTS button. The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun PRINT FONTS until you have a printout for all your cartridges.

## Printing Envelopes

Printing an envelope is a special operation of landscape orientation. On the LaserJet IID, envelopes can be fed into the printer in any one of three ways:

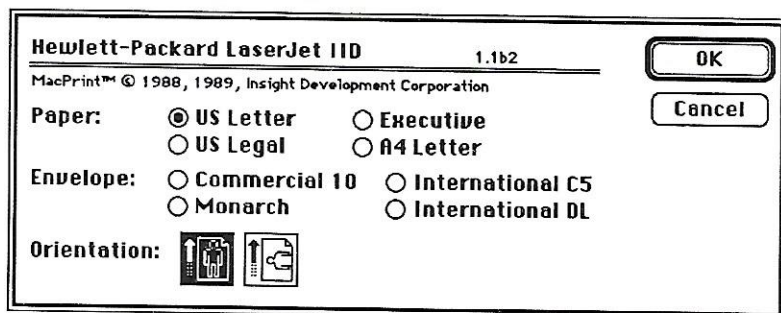


- Manually using the top of the upper or lower paper cassette as the guide.
- Automatically with a special paper cassette option designed specifically for envelopes.
- Automatically with a special envelope feeder option.

The following suggestions may help you print envelopes:

- Notice that the side of your printer that is opposite the paper (envelope) tray can be opened to allow your envelope to travel straight through the printer. This will help reduce paper jams.
- Please review all warnings about using envelopes that are not certified for use with a LaserJet. The LaserJet's process of putting toner on a page requires very high temperatures. The glue on the envelope flap is also subjected to this temperature. If the glue comes off on the roller, it will be expensive to repair. Even more importantly, some glues may produce toxic gases when subjected to high temperatures.

## The Page Setup Command



The function of **Page Setup** is to identify the parameters and abilities of your printer to the application software you are using. Applications may add their own options to this dialog below the Orientation indicator.

- Four **Paper** and four **Envelope** sizes are available in the **Page Setup** dialog. The initial default selection is **US Letter**. Only one of the eight sizes can be selected at any given time.

<u>Selection</u>	<u>Size</u>
US Letter	8.50 x 11 inch
US Legal	8.50 x 14 inch
Executive	7.25 x 10.5 inch
A4 Letter	210 x 297 mm
Commercial 10	4.125 x 9.5 inch
Monarch (Letter)	3.875 x 7.5 inch
International C5	162 x 229 mm
International DL	110 x 220 mm

- Use the **Orientation** setting to select the orientation for your document. You have two choices—portrait (normal) or landscape (sideways).

## The Print Command

**Hewlett-Packard LaserJet IID** 1.1b2

MacPrint™ © 1988, 1989, Insight Development Corporation

**Quality:** ☒ High ☐ Medium ☐ Low

**Copies:**  **Pages:** ☒ All ☐ From  to

**Paper Source:** ☒ Auto Select ☐ Upper Tray ☐ Lower Tray  
☐ Manual Feed ☐ Envelope Feeder

☐ **Letterhead:** first page from ☐ Upper ☐ Lower ☐ Manual

☐ **Duplex (print both sides)** ☐ **Don't force out pages**

**Print** **Cancel**

The **Print** command directs the Macintosh to use the printer driver you selected with the CHOOSER to print your document.

- The **Quality** options include **High**, **Medium**, and **Low**. Your selection determines the resolution and speed at which QuickDraw character and graphics are printed:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
Printer Resolution	300 dpi	150 dpi	75 dpi
Printer Speed	slow	<=>	fast
Printer Memory Needed	max	<=>	min

The **Quality** option has no effect on any characters printed using the Printer Font printing method, since all printer typefaces always print at 300 dpi using the latter method.

- The **Copies** option defaults to **1**. If you select more than one copy, your application determines whether your document will be collated or if all copies of page 1 are printed before any copies of page 2.
- The **Pages** option defaults to **All**. By entering page numbers in the **From** and **to** boxes, you can print a specific page or range.
- The **Paper Source** options provide for the paper handling capabilities of the LaserJet IID. Only one option can be selected at any given time.

- **Auto Select** looks in the paper cassettes for the paper size you've selected. If only one of your cassettes contains the correct size paper, the printer will only use paper from that cassette. If both of your cassettes contain the correct paper size, the printer automatically switches to the other cassette if the first one runs out of paper during the print job.
- **Upper Tray** selects the upper cassette only.
- **Lower Tray** selects the paper cassette only.
- **Manual Feed** sets up the printer to accept single sheets or envelopes provided manually.
- **Envelope Feeder** selects the optional envelope feeder.
- The **Letterhead** option allows you to print the first page of a document from the top or bottom paper cassette or to feed the first page manually. All subsequent pages are printed from the (other) cassette.
- The **Duplex** option allows you to print on both sides of a page.

The **Duplex** option is application dependent. Most applications follow the Apple guidelines for printing documents, and therefore work properly with the duplex option. However, if you select **Duplex** but you aren't getting output on both sides of each page, select the option **Don't Force Out Pages**. *MacPrint* will then compensate for the way in which your application is sending pages.

- The **Faster, but may print hidden objects** option allows for rapid printing of any page with lots of lines. When this option is selected, pages containing lines and rectangles will be printed much more quickly since the internal drawing capabilities of the printer are used. This approach does not support the recognition of "hidden lines" though, so the resulting page may not look correct under all circumstances.

This feature is most useful when used with images such as spreadsheets or pages with borders produced by programs like

Excel, Microsoft Works or Full Impact. Those lines are converted to graphic elements that can be transmitted very quickly to the printer, bypassing the much slower (though more precise) bitmap imaging that is done when this feature is not selected.

Problems are most likely to arise when using object oriented drawing programs such as MacDraw or Canvas, where overlaying of objects is a common method of creating the final image, or Wingz or Full Impact if you're using their special graphic notations or drawing tools to highlight the data. If you don't get the results you want with this feature turned on, simply turn it off.

## Using The LaserJet Series II

You only need to read this section if you're using a LaserJet series II.



## Portrait Printing



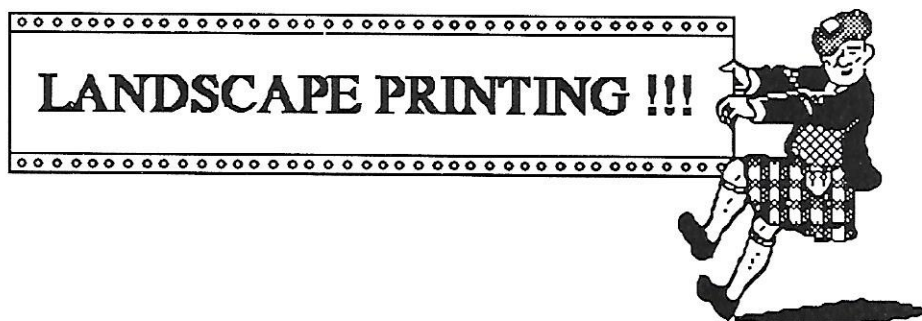
Printing a document in a normal manner, as opposed to sideways, is called portrait printing. All the information about the Printer Font and QuickDraw printing methods presented in Chapter 5—**OPTIMIZING MACPRINT** apply to portrait printing with the LaserJet series II. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

The LaserJet series II *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges will increase your selection. See Appendix B—MACPRINT FONT CARTRIDGES for listings of all the supported font cartridges. If you're unsure which fonts you have available as internal and cartridge fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the PRINT FONTS button. The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun PRINT FONTS until you have a printout for all your cartridges.



Printing a document sideways on the page is called landscape printing. Landscape printing on the LaserJet series II requires a little preplanning.

### ***QuickDraw Graphics Method***

All of the discussions presented in Chapter 5—OPTIMIZING MACPRINT concerning Low, Medium, and High Quality, and the

inclusion of two times and four times sized fonts in the System file apply when using landscape orientation.

### ***Printer Font Printing Method***

All of the discussions presented in Chapter 5—OPTIMIZING MACPRINT concerning the use of the LJ fonts still apply when using landscape orientation *if the LJ font is supported in the printer as a landscape font.*

The LaserJet series II *internal* fonts that result in landscape Printer Font printing are:

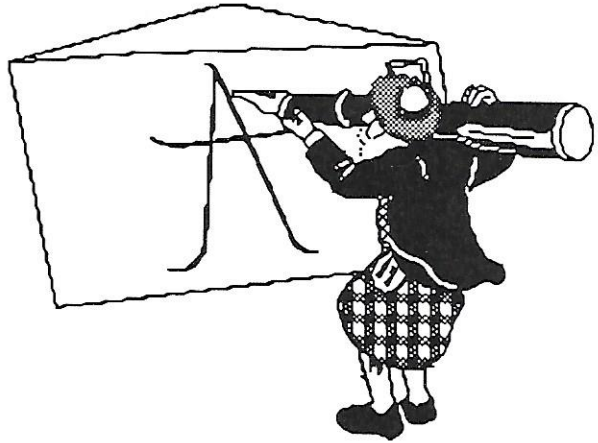
<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges that include landscape orientation fonts will increase your selection. See Appendix B—MACPRINT FONT CARTRIDGES for listings of all the supported font cartridges. If you're unsure which fonts you have available as internal and cartridge landscape fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the PRINT FONTS button. The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun PRINT FONTS until you have a printout for all your cartridges.

## Printing Envelopes

Printing an envelope is a special operation of landscape orientation. On the LaserJet series II, envelopes can be fed into the printer in one of two ways.

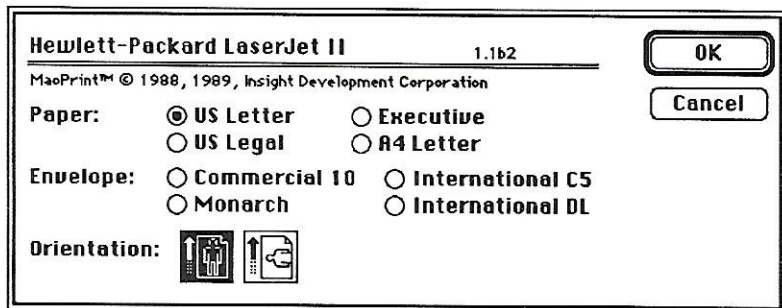


- Manually using the top of the paper cassette as the guide.
- Automatically with a special paper cassette designed specifically for envelopes.

The following suggestions may help you print envelopes:

- Notice that the side of your printer opposite the paper (envelope) tray can be opened to allow your envelope to travel straight through the printer. This will help reduce paper jams.
- Please review all warnings about using envelopes that are not certified for use with a LaserJet. The LaserJet's process of putting toner on a page requires very high temperatures. The glue on the envelope flap is also subjected to this temperature. If the glue comes off on the roller, it will be expensive to repair. Even more importantly, some glues may produce toxic gases when subjected to high temperatures.

## The Page Setup Command



The function of **Page Setup** is to identify the parameters and abilities of your printer to the application software you are using. Applications may add their own options to this dialog below the Orientation indicator.

- Four **Paper** and four **Envelope** sizes are available in the **Page Setup** dialog. The default selection is **US Letter**. Only one of the eight sizes can be selected at any given time.

<u>Selection</u>	<u>Size</u>
US Letter	8.50 x 11 inch
US Legal	8.50 x 14 inch
Executive	7.25 x 10.5 inch
A4 Letter	210 x 297 mm
Commercial 10	4.125 x 9.5 inch
Monarch (Letter)	3.875 x 7.5 inch
International C5	162 x 229 mm
International DL	110 x 220 mm

- Use the **Orientation** setting to select the orientation for your document. You have two choices—portrait (normal) or landscape (sideways).

## The Print Command

Hewlett-Packard LaserJet II 1.1b2

MacPrint™ © 1988, 1989, Insight Development Corporation

Quality: ☒ High ☐ Medium ☐ Low

Copies:  Pages: ☒ All ☐ From  to

Paper Source: ☒ Tray ☐ Manual Feed

Print Cancel

The **Print** command directs the Macintosh to use the printer driver you selected with the CHOOSER to print your document.

- The **Quality** option includes **High**, **Medium**, and **Low**. Your selection determines the resolution and speed at which QuickDraw characters and graphics are printed:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
Printer Resolution	300 dpi	150 dpi	75 dpi
Printer Speed	slow	<=>	fast
Printer Memory Needed	max	<=>	min

The **Quality** option has no effect on any characters printed using the Printer Font printing method, since all printer typefaces always print at 300 dpi using the latter method.

- The **Copies** option defaults to **1**. If you select more than one copy, your application determines whether your document will be collated or if all copies of page 1 are printed before any copies of page 2.
- The **Pages** option defaults to **All**. By entering page numbers in the **From** and **to** boxes, you can print a specific page or range of pages.
- The **Paper Source** options provide for the paper handling capabilities of the LaserJet series II. Only one option can be selected at any given time.

- **Tray** selects the paper cassette as the paper source for the printer. There is also a special paper cassette option designed for envelopes only, which can be used with this selection.
- **Manual Feed** sets up the printer to accept single sheets or envelopes provided manually.
- The **Faster, but may print hidden objects** option allows for rapid printing of any page with lots of lines. When this option is selected, pages containing lines and rectangles will be printed much more quickly since the internal drawing capabilities of the printer are used. This approach does not support the recognition of “hidden lines” though, so the resulting page may not look correct under all circumstances.

This feature is most useful when used with images such as spreadsheets or pages with borders produced by programs like Excel, Microsoft Works or Full Impact. Those lines are converted to graphic elements that can be transmitted very quickly to the printer, bypassing the much slower (though more precise) bitmap imaging that is done when this feature is not selected.

Problems are most likely to arise when using object oriented drawing programs such as MacDraw or Canvas, where overlaying of objects is a common method of creating the final image, or Wingz or Full Impact if you're using their special graphic notations or drawing tools to highlight the data. If you don't get the results you want with this feature turned on, simply turn it off.

# Using The LaserJet+



You only need to read this section if you're using a LaserJet+.

## Portrait Printing

Printing a document in a normal manner, as opposed to sideways, is called portrait printing. All the information about the Printer Font and QuickDraw printing methods presented in Chapter 5—OPTIMIZING MACPRINT apply to portrait printing with the LaserJet+. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

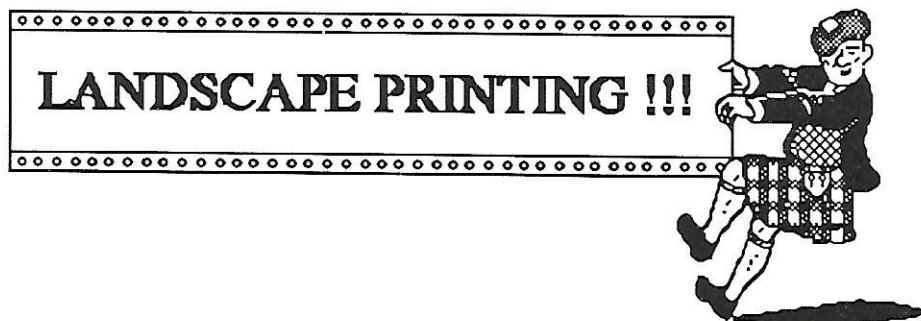


The LaserJet+ *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	12	Plain
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing a font cartridge will increase your selection. See Appendix B—*MACPRINT FONT CARTRIDGES* for listings of all the supported font cartridges.



Printing a document sideways on the page is called landscape printing. Landscape printing on the LaserJet+ requires a little preplanning.

### ***QuickDraw Graphics Method***

All of the discussions presented in Chapter 5—*OPTIMIZING MACPRINT* concerning Low, Medium, and High Quality, and the inclusion of two times and four times sized fonts in the System file apply when using landscape orientation.

### ***Printer Font Printing Method***

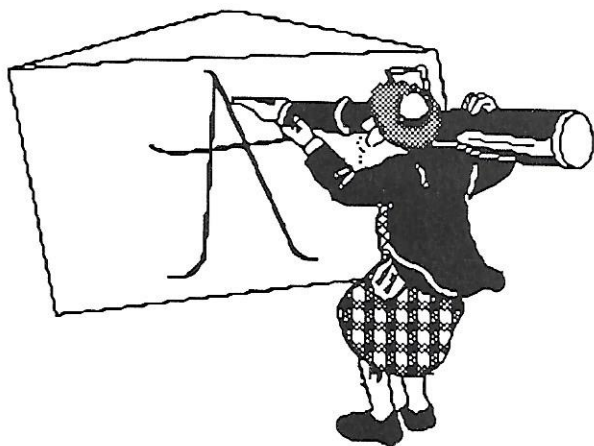
All of the discussions presented in Chapter 5—*OPTIMIZING MACPRINT* concerning the use of the LJ fonts still apply when using landscape orientation *if the LJ font is supported in the printer as a landscape font*. The LaserJet+ *internal* fonts that result in landscape Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	12	Plain

Installing a font cartridge that includes landscape orientation fonts will increase your selection. See Appendix B—*MACPRINT FONT CARTRIDGES* for listings of all the supported font cartridges.

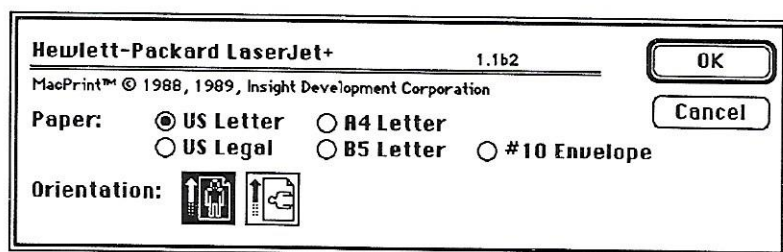
## Printing Envelopes

Printing an envelope is a special operation of landscape orientation. On the LaserJet+, envelopes can be fed into the printer using the manual feed guide.



Please review all warnings about using envelopes that are not certified for use with a LaserJet. The LaserJet's process of putting toner on a page requires very high temperatures. The glue on the envelope flap is also subjected to this temperature. If the glue comes off on the roller, it will be expensive to repair. Even more importantly, some glues may produce toxic gases when subjected to high temperatures.

## The Page Setup Command



The function of **Page Setup** is to identify the parameters and abilities of your printer to the application software you are using. Applications may add their own options to this dialog below the Orientation indicator.

- Five **Paper** sizes, including one envelope, are available in the **Page Setup** dialog. The default selection is **US Letter**. Only one of the five sizes can be selected at any given time.

<u>Selection</u>	<u>Size</u>
US Letter	8.50 x 11 inch
US Legal	8.50 x 14 inch
Executive	7.25 x 10.5 inch
A4 Letter	210 x 297 mm
Commercial 10	4.125 x 9.5 inch

- Use the **Orientation** setting to select the orientation for your document. You have two choices—portrait (normal) or landscape (sideways).

## The Print Command

The **Print** command directs the Macintosh to use the printer driver you selected with the CHOOSER to print your document.

- The **Quality** option includes **High**, **Medium**, and **Low**. Your selection determines the resolution and speed at which QuickDraw characters and graphics are printed:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
Printer Resolution	300 dpi	150 dpi	75 dpi
Printer Speed	slow	<=>	fast
Printer Memory Needed	max	<=>	min

The **Quality** option has no effect on any characters printed using the Printer Font printing method, since all printer typefaces always print at 300 dpi using the latter method.

- The **Copies** option defaults to **1**. If you select more than one copy, your application determines whether your document will be collated or if all copies of page 1 are printed before any copies of page 2.
- The **Pages** option defaults to **All**. By entering page numbers in the **From** and **to** boxes, you can print a specific page or range of pages.
- The **Paper Source** options provide for the paper handling capabilities of the LaserJet+. Only one option can be selected at any given time.
  - **Tray** selects the paper cassette as the paper source for the printer. There is also a special paper cassette option designed for envelopes only, which can be used with this selection.
  - **Manual Feed** sets up the printer to accept single sheets or envelopes provided manually.
- The **Faster, but may print hidden objects** option allows for rapid printing of any page with lots of lines. When this option is selected, pages containing lines and rectangles will be printed much more quickly since the internal drawing capabilities of the printer are used. This approach does not support the recognition of "hidden lines" though, so the resulting page may not look correct under all circumstances.

This feature is most useful when used with images such as spreadsheets or pages with borders produced by programs like Excel, Microsoft Works or Full Impact. Those lines are converted to graphic elements that can be transmitted very quickly to the printer, bypassing the much slower (though more precise) bitmap imaging that is done when this feature is not selected.

Problems are most likely to arise when using object oriented drawing programs such as MacDraw or Canvas, where overlaying of objects is a common method of creating the final image, or Wingz or Full Impact if you're using their special graphic notations or drawing tools to highlight the data. If you don't get the results you want with this feature turned on, simply turn it off.

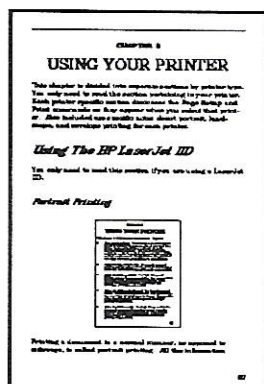
## Using The DeskJet and The DeskJet PLUS



The HP DeskJet and DeskJet PLUS printers are identical except for printing speed and the number of internal fonts supported. Therefore, both printers will be covered together. You only need to read this section if you're using a DeskJet or a DeskJet PLUS.

### Portrait Printing

Printing a document in a normal manner, as opposed to sideways, is called portrait printing. All the information about the Printer Font and QuickDraw printing methods presented in Chapter 5—**OPTIMIZING MACPRINT** apply to portrait printing with the DeskJet and DeskJet PLUS. We recommend that you use DJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.



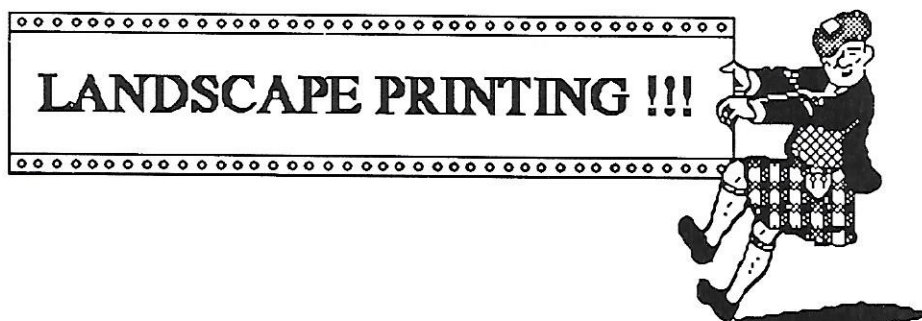
The DeskJet *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
DJ Courier	6.0	Plain
DJ Courier	6.0	<b>Bold</b>
DJ Courier	12	Plain
DJ Courier	12	<b>Bold</b>

The DeskJet PLUS *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
DJ Courier	6.0	Plain
DJ Courier	6.0	<b>Bold</b>
DJ Courier	6.0	<i>Italic</i>
DJ Courier	6.0	<b><i>Bold Italic</i></b>
DJ Courier	12	Plain
DJ Courier	12	<b>Bold</b>
DJ Courier	12	<i>Italic</i>
DJ Courier	12	<b><i>Bold Italic</i></b>

Installing one or more font cartridges into either a DeskJet or DeskJet PLUS will increase your selection. Please see Appendix B—**MACPRINT FONT CARTRIDGES** for listings of all the supported font cartridges.



Printing a document sideways on the page is called landscape printing. When you attempt landscape printing on the DeskJet you need to be aware of the following:

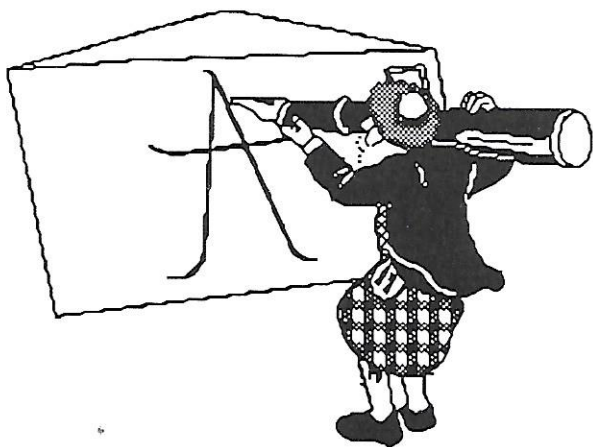
1. The DeskJet is a line printer, not a page printer. Once a line of text is printed on the page, the printer is done with it, and does not need to remember it. The *MacPrint* problem is that the DeskJet has very little memory to work with—certainly not enough to download a complete page, turn it sideways, and print. *MacPrint* must find this temporary storage elsewhere.

To print a full page of graphic printing in the High Quality setting requires that *MacPrint* manipulate about 1 Mbyte of information. *MacPrint* is designed to use whatever memory is available within your computer, and will make multiple passes through the page if necessary to enable that the entire page prints properly. The more memory available as working space for *MacPrint*, the fewer passes are required, and the faster the page will print.

2. The Macintosh is primarily a graphics based computer, but the DeskJet is not able to print landscape graphics. Therefore, *MacPrint* does all landscape printing by rotating the page image itself and printing the result using the portrait mode of the printer. This is the reason that landscape printer fonts are not supported and should not be used.

## Printing Envelopes

Printing an envelope on a DeskJet or DeskJet PLUS printer is a special operation of portrait orientation. (Note that envelopes are printed in Portrait mode on DeskJet printers, even though they are printed using Landscape mode on LaserJet printers.) Only #10 commercial envelopes may be printed on the DeskJet and DeskJet PLUS printers,

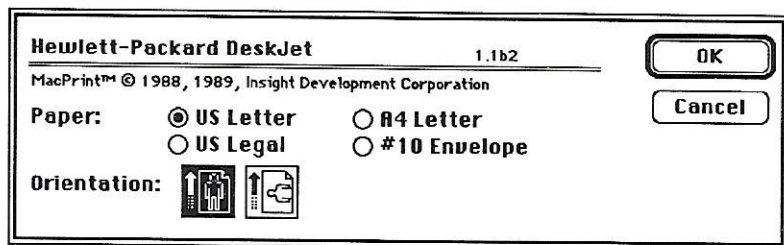


and all envelopes must be individually loaded into the printer. The following steps will lead you through the successful printing of an envelope.

- Manually load the envelope with the address side down into the envelope guide under the output tray. The envelope should be pushed up as far as it will go, until stopped by the feeder rollers. *DO NOT* press the envelope feed buttons.
- In your application, choose *Envelope* as your paper size and place whatever text and graphics you wish on a single envelope-sized page.
- Print the document using the normal **Print** command.

The envelope will then feed, print, and be moved into the output tray just like any other paper.

## The Page Setup Command



The function of **Page Setup** is to identify the parameters and abilities of your printer to the application software you are using. Applications may add their own options to this dialog below the Orientation indicator.

- Four **Paper** sizes, including one envelope, are available in the **Page Setup** dialog. The default selection is **US Letter**. Only one of the four sizes can be selected at any given time.

SelectionSize

US Letter	8.50 x 11 inch
US Legal	8.50 x 14 inch
A4 Letter	210 x 297 mm
#10 Envelope	4.125 x 9.5 inch

- Use the **Orientation** setting to select the orientation for your document. You have two choices—portrait (normal) or landscape (sideways).

## The Print Command

The **Print** command directs the Macintosh to use the printer driver you selected with the CHOOSER to print your document.

- The **Quality** option includes **High**, **Medium**, and **Low**. Your selection determines the resolution and speed at which QuickDraw characters and graphics are printed:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
Printer Resolution	300 dpi	150 dpi	75 dpi
Printer Speed	slow	<=>	fast
Printer Memory Needed	max	<=>	min

The **Quality** option has no effect on any characters printed using the Printer Font printing method, since all printer typefaces always print at 300 dpi using the latter method.

- The **Quality Mode** option affects the speed of printing and the amount of ink that is transferred to the paper. It is not related to the **Quality** option discussed above, and does not affect the

printer resolution. In **Letter** mode, the printer moves more slowly over the paper, placing more ink to produce darker black areas. In **Draft** mode, the printer runs twice as fast, but the black areas receive less ink and are therefore less dark.

- The **Copies** option defaults to **1**. If you select more than one copy, your application determines whether your document will be collated or if all copies of page 1 are printed before any copies of page 2.
- The **Pages** option defaults to **All**. By entering page numbers in the **From** and **to** boxes, you can print a specific page or range of pages.



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## CHAPTER 7



# APPLICATION NOTES

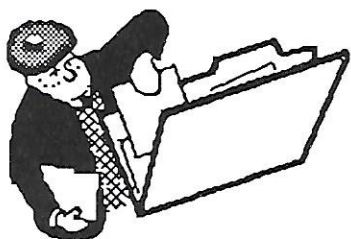
This chapter is not intended to be a tutorial on how to run your application. It is intended to give you some pointers. In our extensive testing of *MacPrint* we have come across some items that may be of interest to you.

## *General Comments*

*MacPrint* assumes that you are familiar with your Macintosh and your application. If you're having continued problems, reread your Macintosh User's Guide and your Macintosh System Tools reference guide.

Whenever possible use LJ or DJ fonts in sizes, styles and orientation supported by your printer's internal and cartridge fonts. These fonts always print at the best quality and fastest speed. Although you will always get the best results using these fonts, the internal and cartridge fonts may not have the font you want. Second choice is to use the Compugraphic fonts provided with *MacPrint*. These are optimized screen fonts provided in sizes up to 96 point. Third choice is to use any other font. Make sure you understand the information about the QuickDraw printing method found in Chapter 5—OPTIMIZING *MACPRINT*.

If you are using a new program or a new feature of an old program, always make a test page with a few examples on it. Try printing this page with different fonts and orientation. This will tell you quickly and easily what your program can and can't do. In this way, you can eliminate some of the frustration that occurs when you're trying to get a new feature to work on a long project that was due yesterday.



You may even wish to make notes on the printout and file it away so you can refer to it later.

If your final document is going to be printed on a PostScript® printer and you're using *MacPrint* for draft versions only, **don't** use LJ or DJ fonts. Instead, use the PostScript fonts you intend to use when you print your final copy. Although the quality of your drafts may not be high, you will be able to see the word wrapping and vertical and horizontal character spacing as they will appear on your final copy.

## ***Apple Computer HyperCard®***

HyperCard prints only at High Quality using *MacPrint*. Also, since HyperCard sends all information to the printer as bitmaps, there is no way to use your printer's font cartridge or internal fonts. Silicon Beach SuperCard™ does not have these limitations.

## ***Adobe Illustrator™ 88***

You can use *MacPrint* for rough draft printouts from Adobe Illustrator, since your output can only be printed at the screen resolution of 72 dpi.

## ***Adobe Type Manager™***

If you are using Adobe Type Manager (ATM™), be sure to turn it off before running *MacPrint*'s FONT MAPPER to create your printer and cartridge fonts. If you don't, the fonts that are created will be missing some characters for screen display although they will print properly. Once your fonts are created, you may turn ATM back on, as it is fully compatible and supported by *MacPrint* during normal printing operations.

To turn off ATM, you may either drag the two ATM files from your System Folder or use the Control Panel to deselect ATM. In either case, you will then need to reboot your Macintosh for this change to take effect. Then run FONT MAPPER to create the fonts you need for your printer and cartridges. When you're done using FONT MAPPER, turn ATM back on.

## **Aldus PageMaker™**

PageMaker works well with *MacPrint*. If you have any graphics on your page and you print in PageMaker's "Proof" mode, your graphics will appear as x'd out boxes.

## **Ashton-Tate Full Impact™**

Full Impact works well with *MacPrint*. However, printing grid lines takes a lot of time on a DeskJet and may cause a 512 Kbyte laser printer to run out of memory. If your laser printer runs out of memory, first try printing by using the Faster, but may print hidden objects option in the Print dialog box to speed output and reduce memory requirements, or try printing with grid lines turned off. If you still run out of memory, make sure you are using an LJ or DJ font.

## **Claris MacDraw II®**

MacDraw II has a variety of printing anomalies that affect *MacPrint*.

- Versions 1.0 and 1.1 of MacDraw II only print at High Quality.
- Version 1.0 v4 of MacDraw II allows you to select High, Medium, or Low Quality. However, MacDraw's tech notes admit that it only prints rotated text in Low Quality.
- When you print from any object oriented program in High Quality, some fill patterns appear half-sized within the border of the object. The object remains the correct size, but the pattern appears reduced or more dense.

## ***Claris MacPaint®***

MacPaint is tuned to the Macintosh screen resolution of 72 dpi. Items created with this program are forever bitmapped at 72 dpi. This even includes text. Therefore there's nothing to gain by using LJ or DJ fonts. For best results, use the Compugraphic fonts provided with *MacPrint* or any other Apple fonts. When printing from MacPaint, only select Low Quality printing. There is simply no way to improve the quality of the MacPaint image, so don't waste your time.

## ***Cricket™ Paint***

To select print quality with Cricket Paint use the document view option. When you use this option, your image will print at a reduced size. The higher the quality, the smaller the image. If you take this into account when you create your document, you can get excellent results.

## ***Microsoft Excel™ v1.5***

- *MacPrint* is only compatible with Excel version 1.5 or later.
- Printing grid lines takes a lot of time on a DeskJet and may cause a 512 Kbyte laser printer to run out of memory. If your laser printer runs out of memory, first try printing by using the Faster, but may print hidden objects option in the Print dialog box to speed output and reduce memory requirements, or try printing with grid lines turned off. If you still run out of memory, make sure you are using an LJ or DJ font.

## ***Microsoft PowerPoint™ v2.x***

In landscape orientation PowerPoint displays a work area on your screen which is equal to the actual physical paper size. This is slightly larger than the printer's printable region. If you attempt to place information near the border of the working area displayed on your screen, you will actually be placing this information in the

printer's unprintable region. Any information that is directed to the printer's unprintable region will appear on an extra sheet of paper.

## **Microsoft Word™**

Microsoft Word version 3.0x has some hidden or at least non-obvious features:

- If you select the **Print** or **Page Setup** dialog boxes from Word, you will see Word's dialog boxes. You will not see the *MacPrint* dialog boxes. To access *MacPrint*'s dialog boxes, hold down the Shift key when you select **Print** or **Page Setup**. *MacPrint*'s dialog boxes give you access to *MacPrint*'s features as documented in this manual. After you have used *MacPrint*'s **Print** dialog box, you must then use Word's **Print** dialog box to actually print your document.
- Word has a problem if you change printer drivers between sessions. If you try to print using Word and nothing happens, use either of the following procedures to solve your problem:
  - Open your System Folder and locate the file called Word Settings. Throw this file into the Trash, and then empty the Trash. Although this procedure will allow you to print, it will also destroy any custom menu settings you have created in Word. If you have custom menu settings that you don't want to lose, then use the following alternate procedure.
  - Use the Chooser to select the ImageWriter® printer and then print anything in High Quality. (You can do this even if you don't still have your ImageWriter connected to your computer.) Then use the Chooser again to select your *MacPrint* printer. You can then print without problem.
- Word has a non-obvious feature that allows you to add fonts to its font menu. When you open a new Word document, your LJ, DJ, and CS fonts will not appear on the font menu.

To add these fonts to the menu use the Format menu and select the Character option. This opens a dialog box with two lists of fonts. One list contains all your System fonts; the other contains the Word fonts. Hold down the Option key and the Command key and press the = (equal) key. You will then have a plus sign for the cursor. Click on any font in the System font list you want added to Word's font list. Unfortunately, this procedure only attaches the fonts you select to the document you're working on, not to Word itself.

We suggest that if you want to use LJ, DJ, or CS fonts with Word, you use the above procedure to create a blank document with all the fonts selected, and save it. Then when you want to open a new document, use the blank document as your starting point, and all the fonts you selected will be available.

Word 4.0 corrects this problem by using the standard Macintosh menu. You may want to consider updating to Word 4.0 to eliminate this problem.

If you're using Microsoft Word version 4.0, make sure you have selected Fractional Widths in the Page Setup dialog box.

## ***Microsoft Works™***

- When printing envelopes and letters, use the mail merge function to print your envelopes or your letters. Then make another pass through the database to print the other.
- Printing grid lines takes a lot of time on a DeskJet and may cause a 512 Kbyte laser printer to run out of memory. If your laser printer runs out of memory, first try printing by using the Faster, but may print hidden objects option in the Print dialog box to speed output and reduce memory requirements, or try printing with grid lines turned off. If you still run out of memory, make sure you are using an LJ or DJ font.
- Works version 1.x doesn't allow you to select a font for the spreadsheet or database functions. Version 2.0 corrects this problem.

## MindWrite™

MindWrite has fonts installed in the application. One of its fonts has the same ID number as DJ Courier. If you're using DJ Courier in a document and it prints out as a series of vertical bars, you can solve this problem in any of the three following ways:

- Use a program like ResEdit to remove the FONT and FOND resources from MindWrite.
- Use a program like Font Harmonizer (supplied with Suitcase II) to assure that all fonts across multiple suitcases and applications have unique ID numbers.
- Use Font/DA Mover to move MindWrite's fonts from the application to your System file. Then remove the fonts from MindWrite. Font/DA Mover assures that all fonts in the same location have unique ID numbers.

To execute Font/DA Mover double-click on its icon. It will come up with the system fonts in the left window. Hold down the Option key while clicking **Open** in the right window. (The Option key allows you to see all files, not just suitcases.) Select MindWrite and its fonts appear in the right window. Select both fonts in the right window and click **Copy** to move them to the System file. Then select the fonts in the right window again and click **Remove** to delete them from the application.

## Shiva NetSerial X232

The Shiva NetSerial X232 allows your printer to become a node on a TOPS or AppleTalk network. It also allows any DOS computers to share the same device. Shiva has a DOS driver called DOS Connect that allows DOS PC's to use the same NetSerial box and AppleTalk. Shiva can be reached at (617) 864-8500.



## ***Silicon Beach SuperPaint™***

SuperPaint offers both bitmapped Paint features and object oriented Draw features.

- SuperPaint allows you to Copy to Drawing or Copy to Paint. When you Copy to Paint, your image is copied at screen resolution. The Paint option is tuned to the Macintosh screen resolution of 72 dpi. Items created with this option or Copied to this option are forever bitmapped at 72 dpi. This even includes text. Therefore there is no advantage to using LJ or DJ fonts. For best results use the Compugraphic fonts provided with *MacPrint* or any other Apple font for Paint mode.
- On the other hand, if you use LJ or DJ fonts from the Draw mode, you can put text on your drawings at 300 dpi. and leave the drawing in the mode in which it was created. This allows you to take advantage of the high quality and speed afforded by the Printer Font mode.
- When you print from any object oriented program in High Quality, some fill patterns appear half-sized within the border of the object. The object remains the correct size, but the pattern appears reduced or more dense.

## ***Sun Microsystems TOPS™ Network***

*MacPrint* is compatible with TOPS and can be used in a couple of different ways:

- If the printer is connected directly to your Macintosh, leave it there. This allows you full access to all of TOPS capabilities, including shared files and hard disks, but will not allow others to share your printer.
- If you wish to share your printer on the network, we recommend that you acquire a Shiva NetSerial box. Please see the preceding section on Shiva NetSerial X232.

- TOPS spool does not work with *MacPrint* since TOPS spool is written only for use with PostScript printers.

## **SuperMac™ SuperLaserSpool**

*MacPrint* does not have its own spooler. A spooler is a very sophisticated way of allowing your computer and your printer to communicate with one another while you continue to use your computer for other tasks. We recommend SuperLaserSpool which has features including print queuing and preview modes. SuperMac can be reached at (408) 245-2202.

If you're using SuperLaserSpool to print QuickDraw Graphics at High Quality, but your output is not High Quality, try increasing your SuperLaserSpool print buffer size. To do this, select the Laser Queue DA and then select **Setup** from its menu. If your buffer is already at its maximum size, you can either use smaller fonts or use fewer typestyles in your document.

If you have previously used an older version of *MacPrint* with SuperLaserSpool, you must remove the old SuperLaserSpool working files. These files are located in your System Folder. They are identified by the name of the printer driver, followed by ",SLS Copy." (For example, LaserJet II ,SLS Copy). You must remove all of these files from your System Folder before *MacPrint* and SuperLaserSpool can work together.

SuperLaserSpool does not support fractional widths properly. If your character spacing appears wrong, you may have to turn off spooling for the particular application or document that is giving you problems. This is expected to be fixed in an upcoming release from SuperMac.



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## CHAPTER 8

# IN CASE OF DIFFICULTY

Most problems that you might encounter when using *MacPrint* can be solved by consulting the following items. Please review this chapter before taking further action. Additionally, please see Chapter 7—APPLICATION NOTES for information about how to use *MacPrint* with specific application programs. Make sure you've checked the *MacPrint Program* diskette for a README file. Any new information or software changes that became available after this manual was published are documented there. If your problem is still not solved after reading the following points, then see the information at the end of this chapter about calling our technical support line for assistance.

## No Printer Output

If you're not getting any output from your printer, please check the following:

**Problem:** *MacPrint* doesn't work at all or you get unpredictable or erratic results.



- Answer:**
- You may have more than one System file on your computer. Select the Find File DA located under the Apple menu. Enter the word "System" in the **Search for** box. If you have more than one file named System, consult your Macintosh dealer.
  - If you're using Microsoft Word, please see Chapter 7—APPLICATION NOTES.

**Problem:** After issuing a print command, your computer appears to freeze. Although the cursor is active, you cannot access any menus or dialogs.

**Answer:**

- Check to see if your printer is ON and ON LINE.
- Check to see if your printer is out of paper.
- Use the CHOOSER to make sure you have selected the correct port and baud rate. (Please see Chapter 4—INSTALLING FONTS for further information.)
- Check the jumper and switch settings (LaserJet+, DeskJet, and DeskJet PLUS) or the Front Control Panel (LaserJet IID and LaserJet series II) to make sure they are set correctly. (Please see Chapter 2—SETTING UP YOUR PRINTER for further information.)
- Make sure that all cables, switch boxes, etc. are properly connected.

**Problem:** Your output is completely blank.

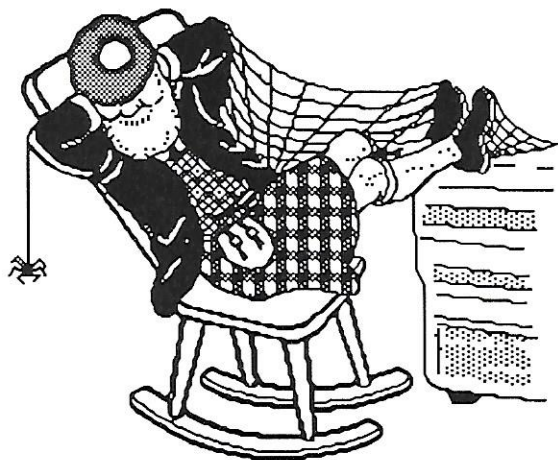
**Answer:**

- Use the CHOOSER to check if you have told *MacPrint* that a font cartridge is installed in your printer that isn't really there. (Please see Chapter 4—INSTALLING FONTS for further information.)

## Poor Performance

If you're not getting the results you want from *MacPrint*, please check the following:

**Problem:** Printing is taking too much time.



**Answer:**

- If you can, use the Printer Font method of printing (using LJ/DJ fonts in supported sizes, styles, and orientation). This is always the fastest way to print and also produces the highest quality output. (Please see Chapter 5—OPTIMIZING MACPRINT.)
- If you must use the QuickDraw method, then print at a lower quality. Medium or Low Quality output is usually quite acceptable for drafts. Then switch to High Quality to produce your final output.
- The more information you include on a page, the longer it takes to print. Items such as borders, grid lines, gray scales, etc., all take time. If they aren't necessary, don't print them. Some of these options can be turned on and off. Leave them off until you're ready to produce your final copy. Then turn them on.

**Problem:** You have selected an LJ/DJ font for your document, but your output is bitmapped (that is, printed using the QuickDraw method).

**Answer:**

- The size, style, and orientation of the LJ/DJ font you want to use must all be supported at your printer in order for *MacPrint* to use the Printer Font method. For example, if you want to use an LJ font in italics, make sure you select an LJ font that has an italic style as one of your printer's internal or cartridge fonts. (Please see Chapter 5—*OPTIMIZING MACPRINT* for further information.)

**Problem:** You have selected an LJ/DJ font for your document in a size, style, and orientation that you know matches a cartridge font installed in your printer. However, your output is still bitmapped.

**Answer:**

- Use the CHOOSER to make sure you have informed *MacPrint* that your cartridge is installed in your printer. (Please see Chapter 4—*INSTALLING FONTS* for further information.)

**Problem:** Most of your output appears in the LJ/DJ font you've selected. However a few special characters (like <sup>TM</sup>) appear as rectangles.

**Answer:**

- The <sup>TM</sup> symbol (and some other special characters) may not be part of an LJ/DJ font's symbol set. If so, the symbol cannot be printed in the Printer Font method, even if the rest of your document can. Symbols that are not part of the LJ/DJ's symbol set appear as rectangles on your output. You must print these characters using the QuickDraw Graphics method.

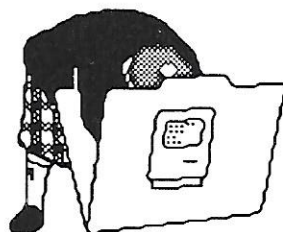
To get High Quality output for these symbols, print them in a bitmapped font for which you have the four times font size in your System file. We suggest using one of your CS fonts. Make sure you select

High Quality printing. The Quality setting won't affect the way your LJ/DJ font is printed since the Printer Font method always prints at the highest possible quality and the fastest possible speed. However, the Quality setting will affect the characters printed using the QuickDraw method. (Please see Chapter 5—OPTIMIZING MACPRINT for further information.)

**Problem:** You are using the QuickDraw printing method and you have selected High Quality, but your output is Low Quality.

**Answer:**

- Make sure that your System file includes a font which is four times the size you want to use. For example, if you want to print a 12 point font at High Quality, your System file must include the 48 point size of that font to get High Quality output.



The Compugraphic fonts provided with *MacPrint* include font sizes up to 96 point. This allows you to print 9, 10, 12, 14, 18, and 24 point sizes at High Quality. (Please see Chapter 5—OPTIMIZING MACPRINT for further information.)

**Problem:** You are using the QuickDraw printing method and you have selected Medium Quality, but your output is Low Quality.

**Answer:**

- Make sure that your System file includes a font which is two times the size you want to use. For example, if you want to print a 12 point font at Medium Quality, your System file must include the 24 point size of that font to get Medium Quality output. The Compugraphic fonts provided with *MacPrint* include font sizes up to 96 point. This allows you to print 9, 10, 12, 14, 18, 24, 36, and 48

point sizes at Medium Quality. (Please see Chapter 5—OPTIMIZING *MACPRINT* for further information.)

**Problem:** You're using SuperLaserSpool and the QuickDraw Printing method. You have selected High Quality, but your output is in lower quality.

**Answer:**

- Try increasing your SuperLaserSpool print buffer size. To do this, select the Laser Queue DA and then select **Setup** from its menu.
- If your buffer is already at its maximum size, you can either use smaller fonts or use fewer typestyles in your document.

**Problem:** Sections of your output are blank.

**Answer:**

- Use the CHOOSE to check if you have told *MacPrint* that a font cartridge is installed in your printer that isn't really there. (Please see Chapter 4—INSTALLING FONTS for further information.)

**Problem:** Your output has poor spacing.

**Answer:**

- Use the CHOOSE to make sure you have selected the correct printer. (Please see Chapter 4—INSTALLING FONTS for further information.)
- Some applications contain an option called Fractional Widths or Use Printer Spacing (or something similar). Often this option is found in the **Page Setup** dialog. *MacPrint* will produce higher quality output if this option is turned ON.



Unfortunately, SuperLaserSpool does not support fractional widths properly. If your character spacing appears wrong, you may have to turn off spooling for the particular application or document that is giving you problems. This is expected to be fixed in an upcoming release from SuperMac.

**Problem:** You're using a LaserJet printer to print graphics (including fonts printed using the QuickDraw method). Only part of a page of output appears from your printer. You may see Error 20 on the printer's Front Control Panel, or a single page may appear on two pages.

**Answer:**

- Your printer doesn't have sufficient memory to print the page. You can print at a lower quality, simplify your document, get more memory for your printer, or switch to Printer Font mode. You will never run out of printer memory using the Printer Font mode.

**Problem:** You're using *MacPrint* with SuperLaserSpool, which you have previously used with an older version of *MacPrint*. Your output is bitmapped, even though you're using Printer Fonts, or your system crashes for no apparent reason.

**Answer:**

- You must remove the old SuperLaserSpool working files. These files are located in your System Folder. They are identified by the name of the printer driver, followed by "SLS Copy." (For example, LaserJet II,SLS Copy). You must remove all of these files from your System Folder before *MacPrint* and SuperLaserSpool can work together.

**Problem:** You're using a DeskJet or a DeskJet PLUS and you're having trouble feeding envelopes through your printer.

**Answer:**

- The DeskJet printers were not designed to accommodate heavy envelope stock. Try using thinner envelopes.

## ***Miscellaneous Problems***

**Problem:** The choices on your menus do not match the capabilities of your printer.

**Answer:**

- Use the CHOOSER to make sure you have selected the correct printer. (Please see Chapter 4—INSTALLING FONTS for further information.)

**Problem:** You want to print your document in a font size that you know exists on your font cartridge, but your application program doesn't include that size as a selection.

**Answer:**

- This is a limitation of your application program. Switch to another application that includes a size selection called "Other."

**Problem:** You want to print your document in a fractional point size that you know exists as an internal or cartridge font. But your application program doesn't allow you to select fractional point sizes.

**Answer:**

- The Macintosh does not provide a way to select fractional point sizes. Round off the point size you want to use and select the rounded number. For example, if you want to use an 8.5 point size, select 9 point from the size menu. Your document will be printed using the 8.5 point size. Similarly, if you want to print using a 16.3 point size, select 16 point from the size menu. Your document will actually be printed using the 16.3 point size.

## ***Technical Support***

Insight is committed to helping you get the most from our products. Software registration is the key to receiving the full benefits of Insight technical support. Please be sure to fill out your Registration Card and drop it in the mail. By returning this card, you become entitled to Insight's customer support services.

### **IMPORTANT**

You must mail in your Registration Card within 30 days from the date of purchase to receive 90 days of free, unlimited telephone technical support.

During the 90-day support period, we will only respond to your first phone call without having received your Registration Card. To receive additional support, you must have a Registration Card on file with us.

Insight is in the process of developing an extended support program for those of you who require technical support beyond the 90-day free support period. News about this program will be included in Insight's newsletter which is mailed free to all registered users. Our newsletter also includes information about new products and upcoming product releases.

## ***How to Call Technical Support***

If you encounter problems that you can't solve by reading this manual, call our technical support line. Remember, only users who have completed registration cards on file with us are entitled to technical support for 90 days from the date of purchase.

If possible, before you call, you should be sitting at your computer, with the computer turned on and the software loaded. To save both your time and ours, please be able to clearly identify your problem, note its symptoms, and make sure it's repeatable.

## Chapter 8

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Please be prepared with the following information before you call:

*MacPrint* version \_\_\_\_\_

*MacPrint* Serial # \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Application \_\_\_\_\_ Version \_\_\_\_\_

Macintosh model \_\_\_\_\_ Memory \_\_\_\_\_

Hard disk size or number of disk drives \_\_\_\_\_

System version \_\_\_\_\_ Finder version \_\_\_\_\_

Printer \_\_\_\_\_ Memory \_\_\_\_\_

Cartridges \_\_\_\_\_

Network \_\_\_\_\_

Call Technical Support:

(415) 626 - 9558

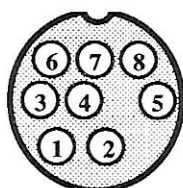
9 a.m. to 5 p.m. Pacific Time

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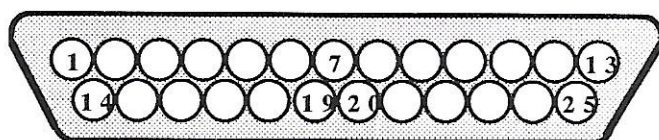
## APPENDIX A

# MACPRINT SERIAL CABLE

The following documents the connector pin assignments and wire connections of the printer cable included in the *MacPrint* package.



Mini Din-8  
Male



DB-25 Male

Mini Din-8		Printer DB-25
------------	--	---------------

1	_____	not used
2	_____	20
3	_____	3
4	_____	1 and 7
5	_____	2
6	_____	not used
7	_____	not used
8	_____	1 and 7



---

## APPENDIX B

# MACPRINT FONT CARTRIDGES

### HP DeskJet/DeskJet PLUS Landscape Cartridge Fonts

Suitcase	Use*	Get*	Plain	<i>Italic</i>
<b>DJ Courier</b>	12	12	L, +	
<b>DJ Letter</b>	10	9.5	L	
<b>Gothic</b>	12	12	L	L

'@' indicates DeskJet Internal

'+' indicates DeskJet PLUS Internal

\* Half sizes are also available. Round up for Mac.

Ex: 7 pt means 3.5 pt is also present (use Mac 4 pt).

#### NOTE

The DeskJet allows all fonts to be used as bold, half-size, and bold half-size. This means every font has 4 fonts available for the Mac.

## HP DeskJet/DeskJet PLUS Portrait Cartridge Fonts

Suitcase	Use*	Get*	Plain	<i>Italic</i>
<b>DJ Courier</b>	12	12	@,+	A,+
<b>DJ Elite</b>	7	7	B	
	10	10	B	B
<b>DJ Helvetica</b>	8	8	Q,G	Q,G
	10	10	Q,G	Q,G
	12	12	Q,H	Q,H
	14	14	Q,J	Q,J
<b>DJ Letter Gothic</b>	7	7	C	
	12	12	C	C
	14	14	M	
<b>DJ Presentation</b>	14	14	M	
	16	16	M	
	18	18	M	
<b>DJ Times</b>	8	8	P,D	P,D
	10	10	P,D	P,D
	12	12	P,E	P,E
	14	14	P,F	P,F

'@' indicates DeskJet Internal

'+' indicates DeskJet PLUS Internal

\* Half sizes are also available. Round up for Mac.

Ex: 7 pt means 3.5 pt is also present (use Mac 4 pt).

### NOTE

The DeskJet allows all fonts to be used as bold, half-size, and bold half-size. This means every font has 4 fonts available for the Mac.

# HP LaserJet Landscape Cartridge Fonts

(See Notes on Page 141)

Suitcase	Use	Get	Plain	Bold	Italic
LJ Courier	10 12	10 12	S1, IID II, IID, +	S1, IID L, Q, II, IID	S1, IID L, Q, IID S1
LJ Line Printer	9	8.5	Z,B,II,IID,+ Y,L,A,C,2		
LJ Helvetica	6	6	V		
	8	7.9	V		
	10	10.1	8	V	
	12	12		V	
	14	13.9		V,8	
LJ Helv Outline	24	24	4		
LJ Letter Gothic	4	3.6	3		
	10	9.6	V,6		
	12	12	N,3,6	N,3	N,3
	14	13.9	R,4,6		
LJ Elite	7	7	H,G,3		
	10	10	M,3	M,3	M,3
LJ Presentation	14	13.9		R,4	
	16	16.1		R,3,4	
	18	18		R,4	
	24	24		4	
LJ Times	8	8			
	10	10	P	P	P
	12	12			
	14	14			
LJ Century Schoolbook	8	8	8		
	10	10	8	8	8
LJ Serifa	24	24	4		
LJ Univers	6	6	5		
	8	8	5	5	
	10	10		5	
	12	12		5	
	14	14		5	

# HP LaserJet Portrait Cartridge Fonts

(See Notes on Page 141)

Suitcase	Use	Get	Plain	Bold	Italic
LJ Courier	10	10	S1,IID,IIP	S1,IID,IIP	S1,IID,IIP
	12	12	Y,C,H,+ II,IID	Y,L,A,C Q,H,II,IID	Y,L,A,C Q,H,IID
LJ Line Printer	9	8.5	Z, II, IID, + F,Y,L,C,2 IIP		
LJ Helvetica	6	6	U, T		
	8	8	U, T, Z,2	T	
	10	10	Z,2,8	U, T, Z,2	Z,2
	12	12	Z,2	U, T, Z,2	Z,2
	14	14.4 or 13.9		U,T,Z,B,F S2,2,8	
LJ Helv Outline	24	24	4		
LJ Letter Gothic	4	3.6	3,1A		
	10	9.5	U,W1,X,6,1A	1A	1A
	12	12	Q, N, E,3,6	Q, N, E,3	N, E,3
LJ Elite	14	14	W1, X, R,3,6		
	7	7	H,G,J,3,7		
LJ Presentation	10	10	M,D,G,J,3,7	M,D,G,J,3,7	M,D,G,J,3,7
	14	13.9		R,4	
	16	16.1		R,3,4	
	18	18		R,4	
	24	24		4	
LJ Times	6	6	1		
	8	8	Z,B,K,F,S2 1,2,7	K,1	K,1
	10	10	Z,P,B,K,F 1,2,7	Z,P,B,K,F 1,2,7	Z,P,B,K,F 1,2,7
	11	11	1A	1A	1A
	12	12	Z, S2,1	Z, S2,1,2	Z, S2,1,2
	14	14	1	Z,1,2	1
	18	18		1	
	24	24		1	
LJ Univers	6	6	5		
	8	8	5	5	
	10	10		5	
	12	12		5	
	14	14	1	5	
	18	18	1		
LJ Serifa	24	24	1		
	24	24	4		
LJ Century Schoolbook	8	8	8		
	10	10	8	8	8

## Notes for HP LaserJet Landscape & Portrait Font Cartridge Tables

“+” indicates LaserJet+ internal fonts

“II” indicates LaserJet II internal fonts

“IID” indicates LaserJet IID internal fonts

“IIP” indicates LaserJet IIP internal fonts

Letters A through Z, S1, S2, and W1 refer to the original letter-designated LaserJet font cartridges.

Numbers 1 - 8 and 1A refer to the following HP Font Cartridges:

1	C2053A #C01	WordPerfect
2	C2053A #C02	Microsoft
3	C2053A #C03	Polished Worksheets
4	C2053A #C04	Persuasive Presentations
5	C2053A #C05	Forms, Etc.
6	C2053A #C06	Bar Codes & More
7	C2053A #C07	Text-Equations
8	C2053A #C08	Global Text
1A	C2055A #C01	Great Start

# HP ProCollection™

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	10	10	×	×	×	×	×	×
	12	12	×	×	×		×	×
<b>LJ Line Ptr</b>	9	8.5	×			×		
<b>LJ Helvetica</b>	8	8	×					
	10	10	×	×	×			
	12	12	×	×	×			
	14	14		×				
<b>LJ Times</b>	8	8	×					
	10	10	×	×	×			
	12	12	×	×	×			
<b>LJ Letter Gothic</b>	4	4	×			×		
	6	6	×			×		
	10	9.5	×			×		
	12	12	×	×	×	×	×	×
<b>LJ Elite</b>	7	7	×			×		
	10	10	×	×	×	×	×	×

# Anacom Maxi-Font

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	12	12		×	×		×	×
<b>LJ Line Ptr</b>	9	8.5	×			×		
<b>LJ Helvetica</b>	6	6	×			×		
	8	8	×			×		
	10	10	×	×	×		×	
	12	12	×	×	×		×	
	14	14		×			×	
<b>LJ Times</b>	8	8	×					
	10	10	×	×	×	×	×	×
	12	12	×	×	×			
	14	14		×				
<b>LJ Letter Gothic</b>	10	9.5	×					
	12	12	×	×	×	×	×	×
	14	14	×					
<b>LJ Elite</b>	7	7	×					
	10	10	×	×	×	×	×	×
<b>LJ Presentation</b>	14	14		×			×	
	16	16		×			×	
	18	18		×			×	

## Computer Peripherals

### JetFont SuperSet™

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	12	12	✕			✕		
<b>LJ Line Ptr</b>	5	5	✕			✕		
	9	8.5	✕			✕		
<b>LJ Helvetica</b>	6	6	✕			✕		
	8	8	✕					
	10	10	✕	✕	✕			
	12	12	✕	✕	✕			
	14	14	✕					
<b>LJ Times</b>	8	8	✕					
	10	10	✕	✕	✕			
	12	12	✕	✕	✕			
	14	14	✕					
<b>LJ Letter Gothic</b>	4	4.4	✕			✕		
	10	9.5	✕			✕		
	12	12	✕	✕	✕	✕		
<b>LJ Elite</b>	7	7	✕			✕		
	10	10.1	✕	✕	✕			
<b>LJ Presentation</b>	14	14	✕					
	16	16	✕					

## Computer Peripherals JetFont 12/30

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Lotica</b>	3	3.3	×			×		
	4	4.1	×			×		
	5	4.7	×			×		
	6	6	×			×		
	8	8.3	×			×		

## Computer Peripherals JetFont 4-IN-1

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	10	10	×	×	×			
	12	12	×	×	×			
<b>LJ Ltr Gothic</b>	12	12	×	×	×			
<b>LJ Elite</b>	12	12	×	×	×			

# **Everex<sup>®</sup>** **All-in-1**

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	10	10	×	×	×			
	12	12	×	×	×			
<b>LJ Line Ptr</b>	9	8.5	×					
<b>LJ Helvetica</b>	6	6	×					
	8	8	×	×				
	10	10	×	×	×			
	12	12	×	×	×			
	14	14		×				
<b>LJ Times</b>	8	8	×					
	10	10	×	×	×			
	12	12	×	×	×			
	14	14		×				
<b>LJ Ltr Gothic</b>	12	12	×	×	×			
<b>LJ Elite</b>	10	10	×	×	×			
<b>LJ Legifont</b>	3	3.3	×			×		
	5	4.7	×			×		
	6	6	×			×		
	8	8.3	×			×		
	10	10	×			×		

**Everex BST**

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Line Ptr</b>	9	8.5	×			×		
<b>LJ Helvetica</b>	14	14.4		×			×	
<b>LJ Times</b>	8	8	×			×		
	10	10	×	×	×	×	×	×
<b>LJ Legifont</b>	3	3.3	×			×		
	5	4.7	×			×		
	6	6	×			×		
	8	8.3	×			×		
	10	10	×			×		

**Everex LGL**

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	10	10	×	×	×			
	12	12	×	×	×			
<b>LJ Elite</b>	10	10	×	×	×			
<b>LJ Ltr Gothic</b>	12	12	×	×	×			

**Everex SST**

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Legifont</b>	3	3.3	×			×		
	5	4.7	×			×		
	6	6	×			×		
	8	8.3	×			×		
	10	10	×			×		

# Intercon® Associates

## Interfont Humanist 601

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Elite</b>	10	10	✕					
<b>LJ Humanist</b>	6	6	✕	✕		✕	✕	
	8	7.9*	✕	✕	✕	✕	✕	✕
	10	9.8*	✕	✕	✕	✕	✕	✕
	12	12	✕	✕	✕	✕	✕	✕
	14	13.9	✕	✕		✕	✕	
	20	19.9		✕			✕	
	24	24		✕			✕	

\* Also available in Bold-Italic

# Intercon Associates

## Interfont Dutch 801

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Elite</b>	10	10	✕					
<b>LJ Dutch</b>	6	6	✕	✕		✕	✕	
	8	7.9*	✕	✕	✕	✕	✕	✕
	10	9.8*	✕	✕	✕	✕	✕	✕
	12	12	✕	✕	✕	✕	✕	✕
	14	13.9	✕	✕		✕	✕	
	20	19.9		✕			✕	
	24	24		✕			✕	

\* Also available in Bold-Italic

## Intercon Associates Interfont Century 701

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Elite</b>	10	10	✕					
<b>LJ Swiss</b>	6	6	✕	✕		✕	✕	
	8	7.9*	✕	✕	✕	✕	✕	✕
	10	9.8*	✕	✕	✕	✕	✕	✕
	12	12	✕	✕	✕	✕	✕	✕
	14	13.9	✕	✕		✕	✕	
	20	19.9		✕			✕	
	24	24		✕			✕	

\* Also available in Bold-Italic

## Intercon Associates Interfont Swiss 721 E8

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Elite</b>	7	7	✕			✕		
	10	10	✕	✕	✕	✕	✕	✕
<b>LJ Century</b>	6	6	✕	✕		✕	✕	
	8	7.9*	✕	✕	✕	✕	✕	✕
	10	9.8*	✕	✕	✕	✕	✕	✕
	12	12	✕	✕	✕	✕	✕	✕
	14	13.9	✕	✕		✕	✕	
	20	19.9		✕			✕	
	24	24		✕			✕	

\* Also available in Bold-Italic

# IQ Engineering Super Cartridge™

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	12	12	✕			✕		
<b>LJ Line Ptr</b>	5	5	✕			✕		
	9	8.5	✕			✕		
<b>LJ Helvetica</b>	6	6	✕			✕		
	8	8	✕					
	10	10	✕	✕	✕			
	12	12	✕	✕	✕			
	14	14	✕					
<b>LJ Times</b>	8	8	✕					
	10	10	✕	✕	✕			
	12	12	✕	✕	✕			
	14	14	✕					
<b>LJ Letter Gothic</b>	4	4.4	✕			✕		
	10	9.5	✕			✕		
	12	12	✕	✕	✕	✕		
<b>LJ Elite</b>	7	7	✕			✕		
	10	10.1	✕	✕	✕			
<b>LJ Presentation</b>	14	14	✕					
	16	16	✕					

# IQ Engineering Super Cartridge 2 and 2L (Part 1)

Suitcase	Use	Get	Portrait		
			Pln	Bld	Itc
<b>LJ Times</b>	6	6	✖	✖	✖
	8	8	✖	✖	✖
	10	10	✖	✖	✖
	11	11	✖	✖	✖
	12	12	✖	✖	✖
	14	14	✖	✖	✖
	18	18		✖	
	24	24		✖	
	30	30		✖	
<b>LJ Helvetica</b>	6	6	✖	✖	✖
	8	8	✖	✖	✖
	10	10	✖	✖	✖
	11	11	✖	✖	✖
	12	12	✖	✖	✖
	14	14	✖	✖	✖
	18	18		✖	
	24	24		✖	
	30	30		✖	

## NOTE

Super Cartridge 2L is the same as Super Cartridge 2 except that the 2L has the landscape equivalents.

## IQ Engineering Super Cartridge 2 and 2L (Part 2)

Suitcase	Use	Get	Portrait		
			Pln	Bld	Mc
<b>LJ Letter Gothic</b>	4	4	**		
	10	9.5	**		
	12	12	**	*	
<b>LJ Elite</b>	7	7	**		
	10	10	**	*	*
<b>LJ Line Printer</b>	5	5	**		
<b>LJ Cooper Black</b>	14	14		*	
	18	18		*	
	24	24		*	
	30	30		*	
<b>LJ Broadway</b>	14	14		*	
	18	18		*	
	24	24		*	
	30	30		*	
<b>LJ Ribbon</b>	14	14		*	
	18	18		*	
	24	24		*	
	30	30		*	

### NOTE

Super Cartridge 2L is the same as Super Cartridge 2 except that the 2L has the landscape equivalents.

## IQ Engineering Super Cartridge 2LC

Suitcase	Use	Get	Landscape		
			Pln	Bld	Itc
<b>LJ Times</b>	8	8	✱		
	10	10	✱	✱	✱
	12	12	✱	✱	✱
	14	14		✱	
<b>LJ Helvetica</b>	8	8	✱		
	10	10	✱	✱	✱
	12	12	✱	✱	✱
	14	14		✱	
<b>LJ Letter Gothic</b>	12	12	✱	✱	✱
<b>LJ Elite</b>	10	10	✱	✱	✱

# **Pacific Data Products** **25 IN 1!**

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	12	12	×		×			
<b>LJ Line Ptr</b>	9	8.5	×			×		
<b>LJ Helvetica</b>	6	6	×			×		
	8	8	×	×		×		
	10	10	×	×	×		×	
	12	12	×	×	×		×	
	14	14		×				
<b>LJ Times</b>	8	8	×					
	10	10	×	×	×	×		
	12	12	×	×	×			
	14	14		×				
<b>LJ Letter Gothic</b>	10	9.6	×			×		
	12	12	×	×	×	×		
	14	14	×			×		
<b>LJ Elite</b>	7	7	×			×		
<b>LJ Presentation</b>	14	14		×			×	
	16	16		×				
	18	18		×				

## PC Peripherals Black Magic

Suitcase	Use	Get	Portrait			Landscape		
			Pln	Bld	Itc	Pln	Bld	Itc
<b>LJ Courier</b>	12	12	**	**	**			
<b>LJ Line Ptr</b>	9	8.5	**			**		
<b>LJ Helvetica</b>	6	6	**			**		
	8	7.9	**			**		
	10	10.1		**			**	
	12	12		**			**	
	14	13.9		**			**	
	15	14.4		**			**	
<b>LJ Times</b>	8	8	**					
	10	10	**	**	**	**	**	**
<b>LJ Letter Gothic</b>	10	9.5	**			**		
	12	12	**	**	**	**	**	**
<b>LJ Elite</b>	10	10	**	**	**	**	**	**



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**MacPrint**

## MacPrint 1.2.3u

# Important Installation Notes

### ■ Disks have changed

Please note that manual references to the disks are now inaccurate! Folders have been renamed and relocated. The contents of each disk are:

#### Program Disk 1

LaserJet II driver  
LaserJet IID driver  
LaserJet IIP driver  
LaserJet III driver  
Insight Folder:  
    LaserJet Fonts  
  
TeachText  
Read Me

#### Program Disk 2

DeskJet driver  
DeskJet PLUS driver  
LaserJet+ driver  
Epson EPL6000 driver  
Insight Folder:  
    LaserJet Fonts  
    DeskJet Fonts  
  
TeachText  
Read Me

#### Fonts Disk

Insight Fonts folder:  
    Font Mapper  
    Apple Fonts  
Compugraphic Fonts folder:  
    CS Courier.sit  
    CS Symbol.sit  
    CS Time.sit  
    CS Triumvirate.sit  
  
Font/DA Mover

### ■ Installation procedures have changed

1. With your Macintosh turned on, insert the Program Disk (1 or 2) that is appropriate for your printer.
2. Copy the appropriate printer driver into the System Folder on your hard disk.
3. Copy the Insight Folder into the System Folder on your hard disk.
4. Eject the Program Disk and insert the Fonts Disk.
5. Copy the Insight Fonts folder to a convenient location on your hard disk. We recommend copying it into the System Folder.
6. If you will be using the Compugraphic Fonts supplied with MacPrint as described on page 54 of the manual, copy the Compugraphic Fonts folder to a convenient location on your hard disk. We recommend copying it into your System Folder.
7. Follow the steps in chapter 2 of your manual to set up your printer and chapter 4 to install fonts.





# **MacPrint<sup>®</sup>**

## **Addendum**

*Hewlett-Packard Reorder Number 35177A*



*Helping you get more from your printer.*

2200 Powell Street, Suite 500  
Emeryville, California 94608

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# Introduction

This Addendum documents the following *MacPrint* features:

- a printer driver for Hewlett-Packard's newest laser printer, the LaserJet IIP.
- a printer driver for Epson's newest laser printer, the EPL-6000.
- compatibility with additional laser printers.

## How to Use This Addendum

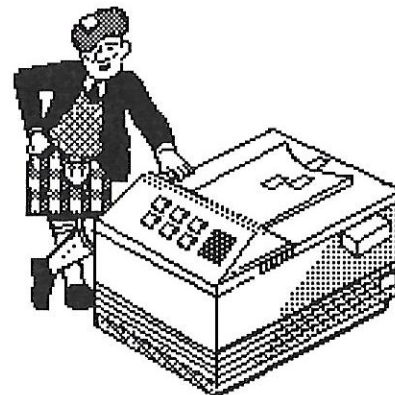
The sections of this Addendum that are relevant to you depend on the printer you're using:

- If you're using a LaserJet IIP, much of what you need to know is contained in the *MacPrint* User's Guide. However, instead of Chapter 2—SETTING UP YOUR PRINTER, read the section on *HP LaserJet IIP Configuration* in this Addendum. And instead of Chapter 6—USING YOUR PRINTER, read the section *Using the LaserJet IIP* in this Addendum.
- If you're using an Epson EPL-6000, much of what you need to know is contained in the *MacPrint* User's Guide. However, instead of Chapter 2—SETTING UP YOUR PRINTER, read the section on *Epson EPL-6000 Configuration* in this Addendum. Then select the *MacPrint* EPL-6000 printer driver and follow the instructions for installing and using *MacPrint* in the *MacPrint* User's Guide as if you had a LaserJet series II printer.

## HP LaserJet IIP

If you're using an HP LaserJet IIP, read the following sections to configure your LaserJet IIP instead of Chapter 2 in the *MacPrint* User's Guide.

### HP LaserJet IIP Configuration



We strongly recommend that you **DO NOT** attempt to use a **manual** switch box to switch any LaserJet IIP printer between multiple computers. Many Printer Interface Control Boards have had to be replaced because the mechanical switch tends to interrupt or short two or more interface pins at the wrong time. The "electronic" switches/buffers are okay, as all of the "switching" is done as an electronic logic operation, rather than a mechanical one.

Although not absolutely required, it is highly recommended that your LaserJet IIP have 1 Mbyte (or more) of RAM. In any case, continue with this installation. You can use one of the printer's test modes to find out your printer's current configuration. Printers with 512 Kbytes of RAM will be fully operational with the single exception of printing a full page of High Quality (300 dpi) graphics. You'll read more about this later.

## LaserJet IIP Hardware Configuration

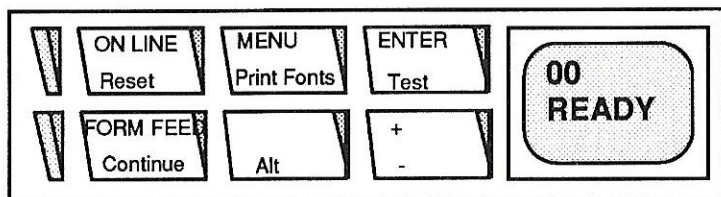
The operation settings for the HP LaserJet IIP are selected via the Front Control Panel. Please see the *LaserJet IIP User's Manual* for a full explanation of all of the Control Panel operations. Following is the recommended LaserJet IIP setup for use with *MacPrint*.

## LaserJet IIP Printer Settings

This procedure will configure a LaserJet IIP printer with these settings:

- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - DTR HIGH hardware operation
  - AUTO CONTINUE on out-of-memory error
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the LaserJet IIP serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.

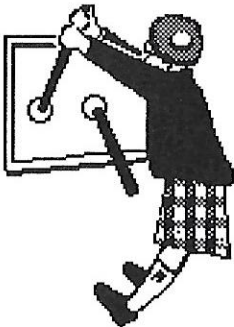


2. Turn the printer on. It takes a minute or so to warm up. Continue after the display window indicates 00 READY.
  3. Press the ON LINE front panel button to take the printer OFF LINE. The ON LINE indicator will go off.
  4. Press the MENU button once to display MP SIZE in the display window. If necessary, use the + or - button to select the paper size you're using in the Multi-Purpose tray. You must set this option at the printer since *MacPrint* cannot control this selection. Press the ENTER button to save your selection.
  5. Press the MENU button again to display COPIES. If necessary, use the + or - button to select **COPIES 1**. Press the ENTER button to save the selection.
- We *strongly* recommend that you set COPIES to 1, and then use *MacPrint* to select the number of copies you want through the Print command. If you set your printer's COPIES to a number other than 1, this number will be multiplied by the number of copies you ask for in *MacPrint*. For example, if the printer's COPIES is set to 2 and you request 3 copies when you print, you'll get 6 copies.
6. Press the MENU button again to display FONT SRC. It doesn't matter how you set this selection.
  7. Press the MENU button again to display FONT NUM. It doesn't matter how you set this selection.
  8. Press the MENU button again to display TRAYS. If necessary, use the + or - button to select **TRAYS BOTH**. Press the ENTER button to save the selection.

If you set TRAYS to BOTH, you can use *MacPrint* to select the tray you want to use through the Print command.

9. Press the MENU button again to display JOB SIZE. If necessary, use the + or - button to select the image size for which you want your print data formatted. You must set this option at the printer since *MacPrint* cannot control this selection. Press the ENTER button to save your selection.
10. Press the MENU button again to display ORIENT. It doesn't matter how you set this selection.
11. Press the MENU button again to display LINES OF TXT. It doesn't matter how you set this selection.
12. Press the MENU button again to display MAN FEED. If necessary, use the + or - button to select **MAN FEED OFF**. Press the ENTER button to save the selection.
13. Press the MENU button again to display SYM SET. If necessary, use the + or - button to select **SYM SET ROMAN-8**. Press the ENTER button to save the selection.
14. Press the MENU button again to display DEVICE CONFIG. Press ENTER and the window will display AUTOCONT. If necessary, use the + or - button to select **AUTOCONT ON**. Press the ENTER button to save the selection.
15. Press the MENU button to show I/O. If necessary, use the + or - button to select **I/O SERIAL**. Press the ENTER button to save the selection.
16. Press the MENU button to show BAUDRATE. If necessary, use the + or - button to select **BAUDRATE 19200**. Press the ENTER button to save the selection.

We recommend a baud rate of 19200 to achieve the fastest possible printing. However, other baud rates can be used if your installation requires them. For example, you may need to use a lower baud rate if you're sharing your printer.

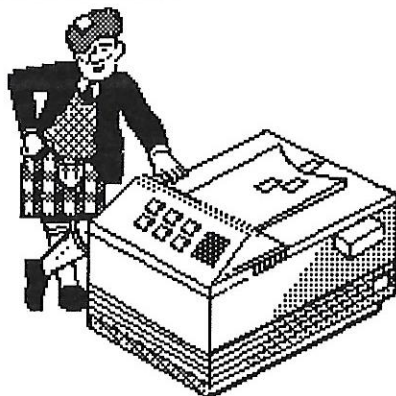
17. Press the MENU button to show ROBUST XON. If necessary, use the + or - button to select **ROBUST XON ON**. Press the ENTER button to save the selection.
  18. Press the MENU button to show DTRPOLAR. If necessary, use the + or - button to select **DTRPOLAR HI**. Press the ENTER button to save the selection.
  19. Press the MENU button once more to return the printer to 00 READY.
  20. Check your printer settings by pressing the Test button (hold down the Alt button and press the ENTER/Test button). The display window will show 05 SELF TEST. After about 20 seconds the display changes to 06 PRINT TEST and the printer will produce a printout of its current configuration and hardware status. Check the printout to confirm that you have made the correct settings. Also note the RAM size. This is the amount of memory installed in your printer. If you have less than 1000 Kbytes, be sure to review Chapter 8—IN CASE OF DIFFICULTY in the *MacPrint* User's Guide.
- 
- If you press the Print Fonts button by mistake (by holding down the Alt button and pressing the MENU/Print Fonts button) your printer starts the Font Test which prints page after page of the printer's character set. The easiest escape from this test is to remove the paper tray(s), let the printer finish the current page, then reset the printer by turning it OFF, then ON.
21. Return the printer ON LINE by pressing the ON LINE button.

Your LaserJet IIP printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* in the

MacPrint User's Guide and complete one of the procedures to install MacPrint onto your Macintosh.

## Using The LaserJet IIP

If you're using an HP LaserJet IIP, read the following sections for specific information about using your LaserJet IIP instead of Chapter 6 in the MacPrint User's Guide.



## Portrait Printing

### Introduction

Welcome to the new release of MacPrint. MacPrint 1.0 includes the following new features which are explained in this Addendum:

- a printer driver for Hewlett-Packard's newest laser printer, the LaserJet IIIP.
- dramatically improved CIP fonts.
- a change in the Print dialog for all LaserJet printers which provides a significantly improved speed in many situations.
- options of Desktop drivers which provide greatly improved speed in most situations.
- down loaded compatibility with additional laser printers.
- support for several new HP and third party font cartridges. (For detailed information please see the appropriate section in this Addendum.)

### How to Use This Addendum

The sections of this Addendum that are relevant to you depend on whether you're a new Macintosh user or you're upgrading from a previous version of MacPrint as well as whether you're using a LaserJet IIIP.

- If you're a new Macintosh user and you don't have a LaserJet IIIP, then almost everything you need to know is contained in the MacPrint User's Guide that accompanied this Addendum. If you're using one of

Printing a document in a normal manner, as opposed to sideways, is called portrait printing. All the information about the Printer Font and QuickDraw printing methods presented in Chapter 5—OPTIMIZING MACPRINT in the MacPrint User's Guide apply to portrait printing with the LaserJet IIP. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

The LaserJet IIP *internal* fonts that result in portrait Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	10	Plain
LJ Courier	10	<b>Bold</b>
LJ Courier	10	<i>Italic</i>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Courier	12	<i>Italic</i>
LJ Line_Printer	9 (8.5)	Plain

Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges will increase your selection. See Appendix B—MACPRINT FONT CARTRIDGES in the MacPrint User's Guide for listings of all the font cartridges that MacPrint supports. Since a few font cartridges cannot be used in the LaserJet IIP, make sure any cartridge you want to use is supported by the LaserJet IIP before you purchase it.

If you're unsure which fonts you have available as internal and cartridge fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the Print Fonts button. (Hold down the Alt button and press the MENU/Print Fonts button.) The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun Print Fonts until you have a printout for all your cartridges.

## Landscape Printing

[illegible]

Printing a document sideways on the page is called landscape printing. The LaserJet IIP has the ability to rotate 90° any (portrait) internal or cartridge typeface. This feature allows any of the LJ fonts (in supported styles

and sizes) to be printed in both portrait and landscape orientations. Therefore, all of the discussions concerning the Printer Font and QuickDraw methods discussed in Chapter 5—OPTIMIZING MACPRINT in the *MacPrint* User's Guide also apply to landscape printing. We recommend that you use LJ fonts and the Printer Font printing method whenever possible to achieve the highest quality and speed.

The LaserJet IIP *internal* fonts that result in landscape Printer Font printing are:

<u>Font</u>	<u>Size</u>	<u>Style</u>
LJ Courier	10	Plain
LJ Courier	10	<b>Bold</b>
LJ Courier	10	<i>Italic</i>
LJ Courier	12	Plain
LJ Courier	12	<b>Bold</b>
LJ Courier	12	<i>Italic</i>
LJ Line Printer	9 (8.5)	Plain

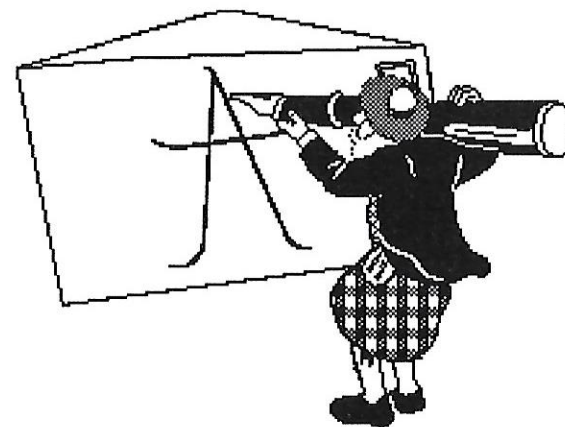
Note that the 8.5 Line\_Printer is selected using the 9 point size selection.

Installing one or more font cartridges will increase your selection. See Appendix B—*MACPRINT FONT CARTRIDGES* in the *MacPrint User's Guide* for listings of all the font cartridges that *MacPrint* supports. Since a few font cartridges cannot be used in the LaserJet IIP, make sure any cartridge you want to use is supported by the LaserJet IIP before you purchase it.

If you're unsure which fonts you have available as internal and cartridge fonts, you can always get a printout that lists this information. Take your printer OFF LINE and press the Print Fonts button. (Hold down the Alt button and press the MENU/Print Fonts button.) The resulting printout includes a complete list of all fonts you have available in both portrait and landscape orientations. If you own several font cartridges, remove the installed cartridge and replace it with another cartridge. Then rerun Print Fonts until you have a printout for all your cartridges.

## Printing Envelopes

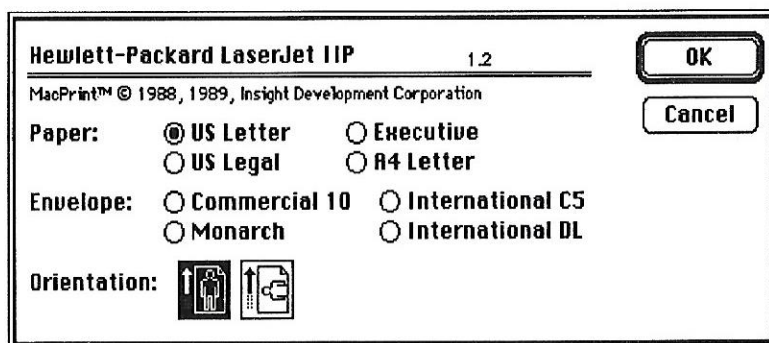
Printing an envelope is a special operation of landscape orientation. On the LaserJet IIP, envelopes can be fed into the printer in one of two ways:



- Manually using the Multi-Purpose (MP) tray.
- Automatically with a special paper cassette option designed specifically for envelopes called the LC Envelope Tray.

Please review all warnings about using envelopes that are not certified for use with a LaserJet. The LaserJet's process of putting toner on a page requires very high temperatures. The glue on the envelope flap is also subjected to this temperature. If the glue comes off on the roller, it will be expensive to repair. Even more importantly, some glues may produce toxic gases when subjected to high temperatures.

## The Page Setup Command



The function of **Page Setup** is to identify the parameters and abilities of your printer to the application software you are using. Applications may add their own options to this dialog below the Orientation indicator.

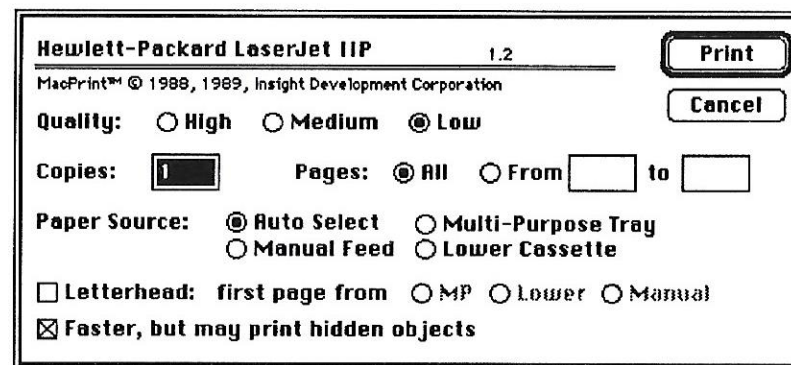
- Four paper and four envelope sizes are available in the **Page Setup** dialog. The initial default selection is **US Letter**. Only one of the eight sizes can be selected at any given time.

<u>Selection</u>	<u>Size</u>
US Letter	8.50 x 11 inch
US Legal	8.50 x 14 inch
Executive	7.25 x 10.5 inch
A4 Letter	210 x 297 mm

Commercial 10	4.125 x 9.5 inch
Monarch (Letter)	3.875 x 7.5 inch
International C5	162 x 229 mm
International DL	110 x 220 mm

- Use the **Orientation** setting to select the orientation for your document. You have two choices—portrait (normal) or landscape (sideways).

## The Print Command



The **Print** command directs the Macintosh to use the printer driver you selected with the CHOOSER to print your document.

- The **Quality** options include **High**, **Medium**, and **Low**. Your selection determines the resolution and speed at which QuickDraw character and graphics are printed:

	<u>High</u>	<u>Medium</u>	<u>Low</u>
Printer Resolution	300 dpi	150 dpi	75 dpi
Printer Speed	slow	<=>	fast
Printer Memory Needed	max	<=>	min

The **Quality** option has no effect on any characters printed using the Printer Font printing method, since all printer typefaces always print at 300 dpi using the latter method.

- The **Copies** option defaults to **1**. If you select more than one copy, your application determines whether your document will be collated or if all copies of page 1 are printed before any copies of page 2.
- The **Pages** option defaults to **All**. By entering page numbers in the **From** and **to** boxes, you can print a specific page or range of pages.
- The **Paper Source** options provide for the paper handling capabilities of the LaserJet IIP. Only one option can be selected at any given time.
  - **Auto Select** looks in the paper cassettes for the paper size you've selected. If only one of your cassettes contains the correct size paper, the printer will only use paper from that cassette. If both of your cassettes contain the correct paper size, the printer automatically switches to the other cassette if the first one runs out of paper during the print job.
  - **Multi-Purpose Tray** selects the upper cassette only.
  - **Manual Feed** sets up the printer to accept single sheets or envelopes provided manually.
  - **Lower Cassette** selects the paper cassette only.
- The **Letterhead** option allows you to print the first page of a document from the top or bottom paper cassette or to feed the first page manually. All subsequent pages are printed from the (other) cassette.

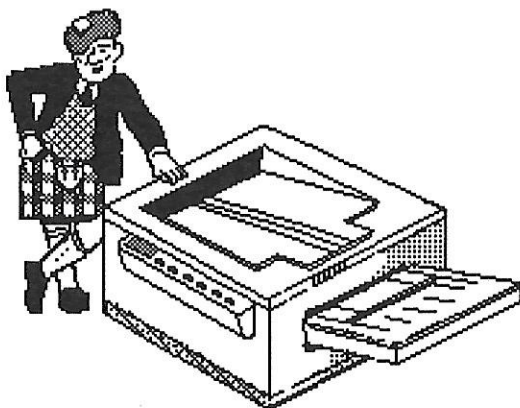
- The **Faster, but may print hidden objects** option allows for rapid printing of any page with lots of lines. When this option is selected, pages containing lines and rectangles will be printed much more quickly since the internal drawing capabilities of the printer are used. This approach does not support the recognition of "hidden lines" though, so the resulting page may not look correct under all circumstances.

This feature is most useful when used with images such as spreadsheets or pages with borders produced by programs like Excel, Microsoft Works or Full Impact. Those lines are converted to graphic elements that can be transmitted very quickly to the printer, bypassing the much slower (though more precise) bitmap imaging that is done when this feature is not selected.

Problems are most likely to arise when using object oriented drawing programs such as MacDraw or Canvas, where overlaying of objects is a common method of creating the final image, or Wingz or Full Impact if you're using their special graphic notations or drawing tools to highlight the data. If you don't get the results you want with this feature turned on, simply turn it off.

# Epson EPL-6000 Configuration

If you're using an Epson EPL-6000, read the following sections to configure your printer instead of Chapter 2 in the *MacPrint User's Guide*.



We strongly recommend that you *DO NOT* attempt to use a **manual** switch box to switch any Epson EPL-6000 printer between multiple computers. Many Printer Interface Control Boards have had to be replaced because the mechanical switch tends to interrupt or short two or more interface pins at the wrong time. The "electronic" switches/buffers are okay, as all of the "switching" is done as an electronic logic operation, rather than a mechanical one.

Although not absolutely required, it is highly recommended that your Epson EPL-6000 have 1 Mbyte (or more) of RAM. In any case, continue with this installation. You can use one of the printer's test modes to find out your printer's current configuration. Printers with 512 Kbytes of RAM will be fully operational with the single exception of printing a full page of High Quality (300 dpi) graphics. You'll read more about this later.

## EPL-6000 Hardware Configuration

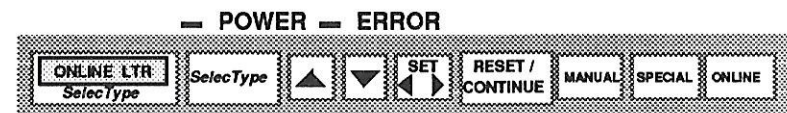
The operation settings for the Epson EPL-6000 printer are selected via the Front Control Panel. Please see the *Epson EPL-6000 User's Manual* for a full explanation of all of the Control Panel operations. Following is the recommended EPL-6000 setup for use with *MacPrint*.

## EPL-6000 Printer Settings

This procedure will configure an EPL-6000 printer with these settings:

- RS-232 Serial Interface
  - 19,200 bps data transfer rate
  - XON / XOFF software protocol
  - AUTO CONTINUE on out-of-memory error
1. Make sure that both the printer and the computer are turned **OFF**. Connect the *MacPrint* Serial Cable between the computer and the printer.

The cable included in the *MacPrint* package is the correct cable to connect the Macintosh modem port or printer port (Mini DIN-8 connector) to the EPL-6000 serial interface (DB-25 connector). If this cable needs to be extended, purchase a DB-25 male to DB-25 female extension cable. The maximum recommended cable length is 100 feet.



2. Turn the printer on. It takes a minute or so to warm up. Continue after the display window indicates **ONLINE**.

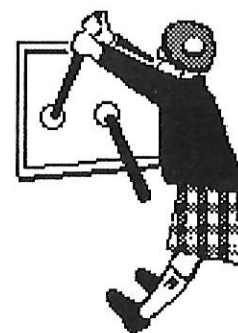
3. Press the ON LINE front panel key to take the printer OFFLINE.
4. Press the *SelectType* key once to display PAPERSIZE = in the display window. If necessary, use the SET key and the Up or Down arrow key to select **PAPERSIZE = LTR.**
5. Press the Down arrow key to display COPIES =. If necessary, use the SET key and the Up or Down arrow key to select **COPIES = 1.**

We *strongly* recommend that you set COPIES to 1, and then use *MacPrint* to select the number of copies you want through the Print command. If you set your printer's COPIES to a number other than 1, this number will be multiplied by the number of copies you ask for in *MacPrint*. For example, if the printer's COPIES is set to 2 and you request 3 copies when you print, you'll get 6 copies.

6. Press the Down arrow key again to display AUTO CONT =. If necessary, use the SET key and the Up or Down arrow key to select **AUTO CONT = ON.**
7. Press the Down arrow key again to display EMULATION =. If necessary, use the SET key and the Up or Down arrow key to select **EMULATION = HPLJ2.**
8. Press the Down arrow key again to display I/F =. If necessary, use the SET key and the Up or Down arrow key to select **I/F = SERIAL.**
9. Press the SET key until the display shows BAUD RATE =. (You may need to press the SET key more than once.) If necessary, use the SET key and the Up or Down arrow key to select **BAUD RATE = 19200.**  
We recommend a baud rate of 19200 to achieve the fastest possible printing. However, other baud rates can be used if your installation requires them. For

example, you may need to use a lower baud rate if you're sharing your printer.

10. Press the Down arrow key to show PROT =. If necessary, use the SET key and the Up or Down arrow key to select **PROT = XON/XOFF.**
11. Press the Down arrow key to show DATA BIT =. If necessary, use the SET key and the Up or Down arrow key to select **DATA BIT = 08.**
12. Press the Down arrow key to show PARITY =. If necessary, use the SET key and the Up or Down arrow key to select **PARITY = NONE.**
13. Press the Down arrow key to show STOP BIT =. If necessary, use the SET key and the Up or Down arrow key to select **STOP BIT = 01.**
14. Press the Down arrow key to show ROBUST-XON =. If necessary, use the SET key and the Up or Down arrow key to select **ROBUST-XON = ON.**
15. Press the Down arrow key to show I/F = SERIAL. Press the *SelectType* key to display OFFLINE.
16. Check your printer settings by pressing the Up and Down arrow keys at the same time. The display window will show STATUS PRINT and the printer produces a printout of its current configuration and hardware status. Check the printout to confirm that you have made the correct settings. Also note the RAM size. This is the amount of memory installed in your printer. If you have less than 1000 Kbytes, be sure to review Chapter 8—IN CASE OF DIFFICULTY in the *MacPrint* User's Guide.



If you press the SPECIAL and ON LINE keys at the same time your printer starts the Font Test which prints page after page of the printer's character set. The easiest escape from this test is to remove the paper tray(s), let the printer finish the current page, then reset the printer by turning it OFF, then ON.

17. Return the printer ONLINE by pressing the ON LINE button.

Your Epson EPL-6000 printer is now ready to work with *MacPrint*. Turn now to Chapter 3—INSTALLING *MACPRINT* in the *MacPrint* User's Guide and complete one of the procedures to install *MacPrint* onto your Macintosh. Just make sure that you select the EPL-6000 printer driver.

To use your EPL-6000 printer, follow the instructions in the *MacPrint* User's Guide as if you had a LaserJet series II printer.

## Compatible Laser Printers

Any LaserJet series II compatible printer can be used with *MacPrint* by selecting the LaserJet II icon. This includes the following printers:

- Acer LP-76
- AT&T 593
- Brother HL-8 PS
- BlaserStar 2
- Epson EPL 6000
- Everex Laser
- Facit 6PPM
- IBM 4216 Personal PagePrinter
- Kyocera F-1000A, F-3010
- Mannesman Tally MT 905
- Newgen Turbops/300, 400
- Oasys Exec

Any LaserJet+ compatible printer can be used with *MacPrint* by selecting the LaserJet+ icon. This includes the following printers:

- Brother HL-8E, HL-8
- Mitek 2125
- NEC LC 860+, LC 890
- Okidata Laserline 6
- Texas Instruments Omnilaser 2115, 2108, 2106



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Insight Development Corporation (Insight) warrants that:

1. the material of the MacPrint User's Manual and the diskettes containing the MacPrint software are not defective,
2. the MacPrint programs are properly recorded upon the diskettes,
3. the MacPrint User's Manual is substantially complete and contains all the information which Insight considers necessary to use MacPrint, and
4. MacPrint functions substantially as described in the MacPrint User's Manual,

for a period of one year from the date of original purchase to the original purchaser.

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# MacPrint®

Version 1.2

## Program Disk

For Macintosh Plus, SE Series and II Series  
Disk 1

Ser# M 35276 U



# MacPrint®

Version 1.2

## Program Disk

For Macintosh Plus, SE Series and II Series  
Disk 2



# MacPrint®

Version 1.2

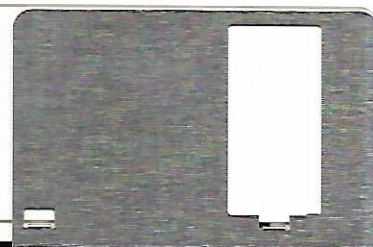
## Fonts Disk

For Macintosh Plus, SE and II Series



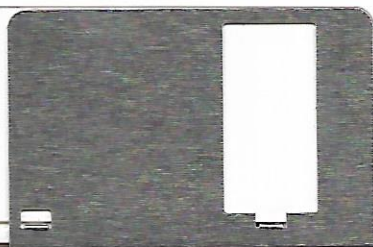
AHX725

Double Sided



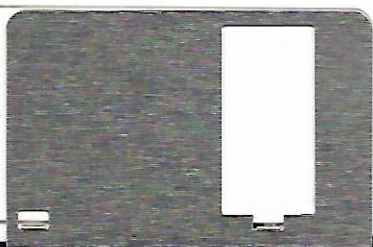
AHX725

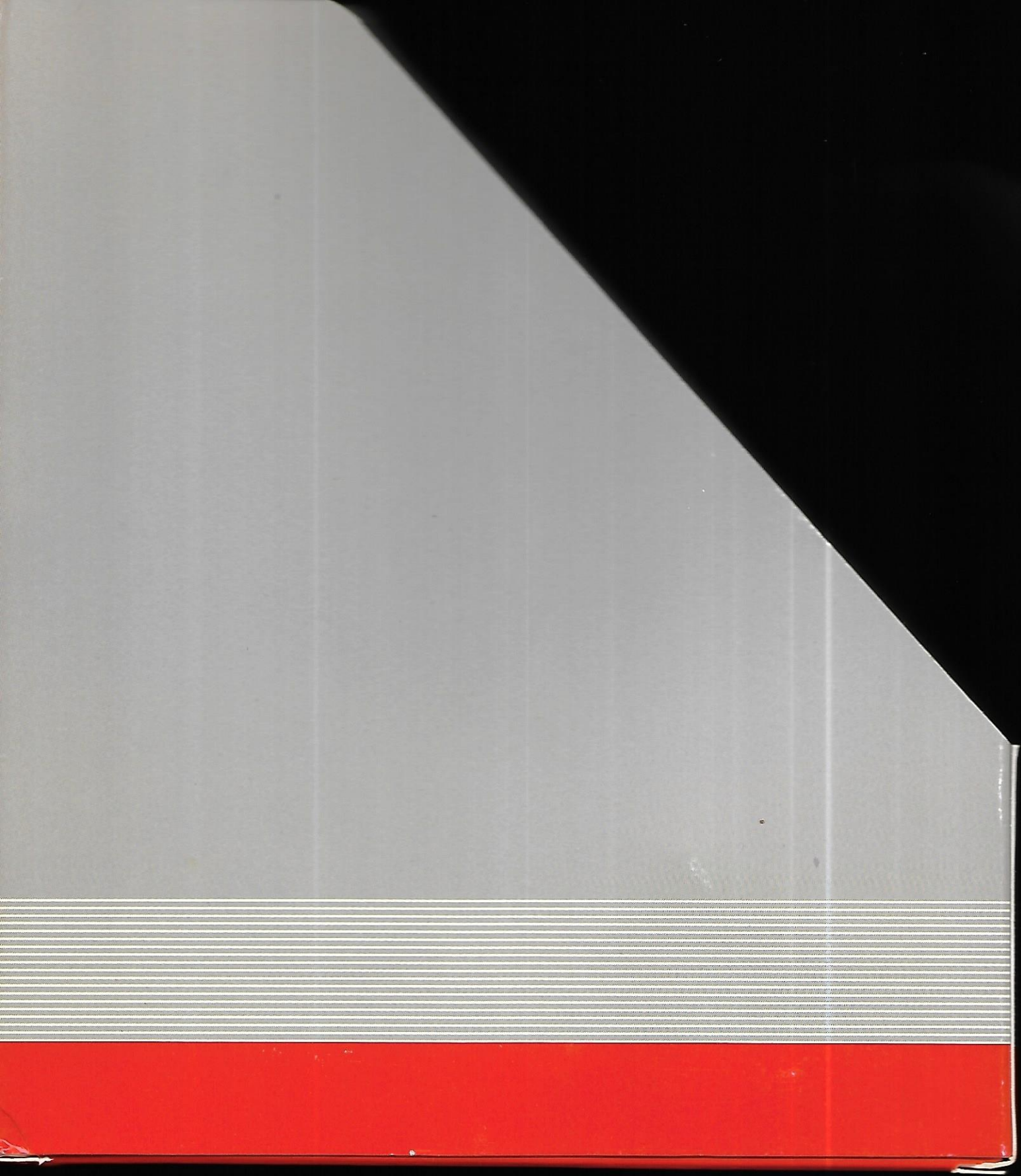
Double Sided



AHX726

Double Sided





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Requires Apple  
Macintosh Plus, SE,  
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LaserJet III, DeskJet, DeskJet PLUS,  
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COMPATIBLE WITH  
VIRTUALLY ALL  
MACINTOSH APPLICATIONS.

FASTER PRINT  
THROUGHPUT.

Now Supports HP  
LaserJet III Printers



# MacPrint

# INSIGHT

Requires Apple  
Macintosh Plus, SE,  
or II. System levels  
5 and up. Supports  
hard disk. Not  
copy-protected.



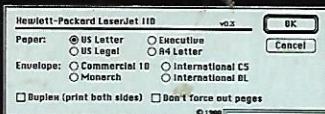
HEWLETT  
PACKARD

35177A

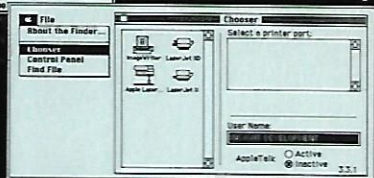
INSIGHT



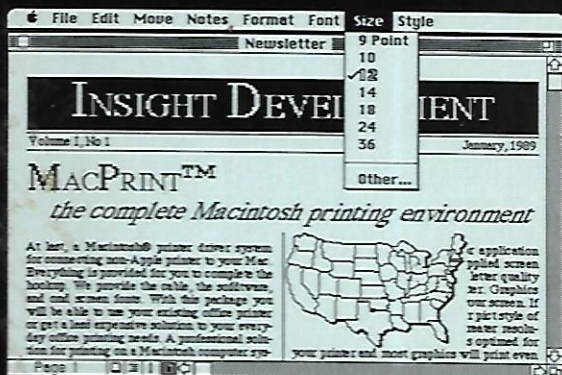
DEVICE MANAGEMENT  
SOFTWARE



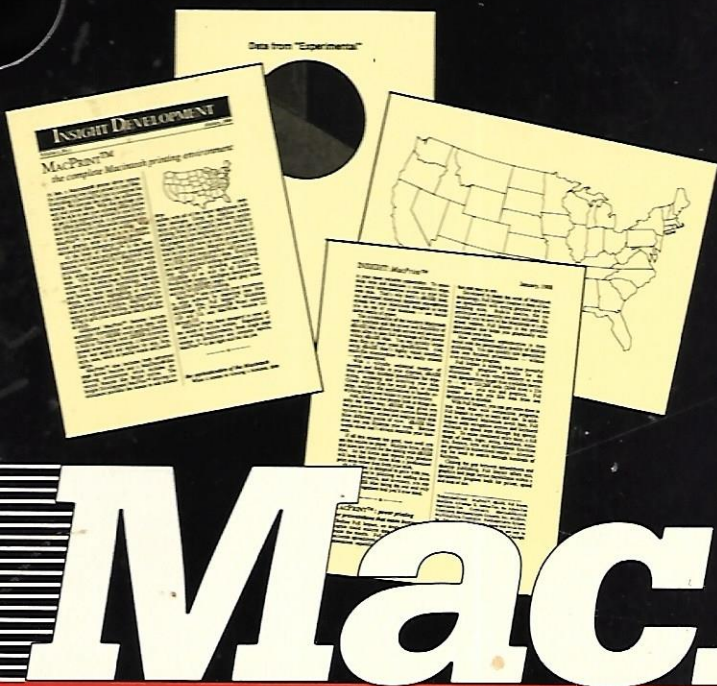
*MacPrint's easy-to-use setup page makes it simple to select any printer.*



*Print any Macintosh application.*



*Get the best possible print quality for the lowest possible price.*



## MacPrint™

Print any Macintosh application on many different printers. MacPrint is a chooser-level program, completely transparent in operation.

Use less-expensive, alternative printers.

You select the printer only once on a simple setup page. Everything else is automatic.

Displays all your printer's resident fonts on your screen. If no resident font is found, MacPrint creates a printable font based on the Macintosh QuickDraw screen font, maintaining spacing, style, and word wrap. So what you see on the screen is what you'll see in print.

Print text and graphics at your printer's maximum resolution. With MacPrint, you can choose 75, 150, or 300 dpi resolution.

Includes four Compugraphic font families: Courier, Times, Symbol and Triumverate (Helvetica) in 12 sizes from 9 to 96 point.

Supports LaserJet Series II, IID, IIP, LaserJet +, LaserJet III, DeskJet, DeskJet PLUS, and PCL-compatible printers. Fully-compatible with printers that have the following options: duplex, dual-bin, or envelope printing. Standard or sideways printing. Legal or standard paper sizes.

Supports screen dumps.

Compatible with SuperLaserSpool from SuperMac Technologies.

Supports all internal fonts and font cartridges for HP printers from suppliers like Hewlett-Packard, Pacific Data Products, Everex, Anacom and Computer Peripherals.

# MacPrint™

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**INSIGHT  
DEVELOPMENT  
CORPORATION**  
Helping you get more from your printer

MacPrint Ver. 1.2



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