Windows on Publishing

Your recipe for corporate personal publishing needn't include the extra expense of the Apple Macintosh and LaserWriter. With Microsoft Windows and a smattering of inexpensive programs, your PC and HP LaserJet can make beautiful pages together.

Nancy Andrews

Personal computer publishing on the PC is in its infancy, but with Microsoft's *Windows* and *Windows Write*, Micrografx's *Windows Draw*, and the Hewlett-Packard LaserJet Plus, you can readily create eye-catching newsletters, reports, and other documents. If your company already uses the LaserJet Plus, the additional investment is modest ($99 for *Windows* and *Write*, $199 for *Draw*); if you have a working familiarity with the *Windows* environment and *Write*, getting up to speed with *Draw* will take but a few hours.

To better fathom the possibilities, consider the steps involved in creating *The Printed Circuit*, a two-page newsletter for the employees of Mythical Corporation, vaporware manufacturer par excellence (see Figure 1). In this example, *Draw* plays the dual role of graphics generator and pasteup board. Key design elements (masthead, borders, subheadings) are first created and laid out in *Draw*; text prepared in *Write* and a graph

produced by *1-2-3* are then imported into *Draw*. The finished product is printed at 300 dots per inch (dpi) on a LaserJet Plus. Almost everything on the first page of the newsletter—including text—is a graphic. As a result, pasteup is much easier and printed output more elegant; printing time, however, is considerably slowed. On the second page, hand-drawn pictures are accompanied by standard text produced with a LaserJet font cartridge.

Lights, Camera, Masthead! *Draw* is well equipped for simple page composition. The program's grid and horizontal and vertical rulers make it easy to line up columns of text and graphics. You can drag images around, rotate them, enter characters directly from the keyboard, and generate any number of geometric shapes. As you paste up the page, you can step back and look at it or at all your pages, display an enlarged section of a page with the Actual Size command, or use Zoom for scrutinizing details. In this application, most of the work will be done at Actual Size or Current Page.

Before getting started with *Windows*, you must determine the overall layout of the newsletter. In this case, *The Printed Circuit* has a masthead running vertically along the right side of the first page. The feature article is pasted up in a single-column format and illustrated with a bar chart; page 2 switches to a two-column format for news and announcements.

Load *Draw* from the MS-DOS Executive window, and select Current Page from the View menu. Before typing in the masthead, you must choose the font, attributes, and point size. *Draw* offers both graphics fonts and standard, bit-mapped fonts. Graphics fonts can be scaled, flipped, and rotated, and are generally used when large type and malleability are needed. *Draw*'s standard text fonts are immutable, are sharpest

in 8, 10, and 12 points, and are commonly used for long passages of text. Because text fonts aren't "drawn" like graphics fonts and thus require less memory, text is displayed and printed faster than graphics.

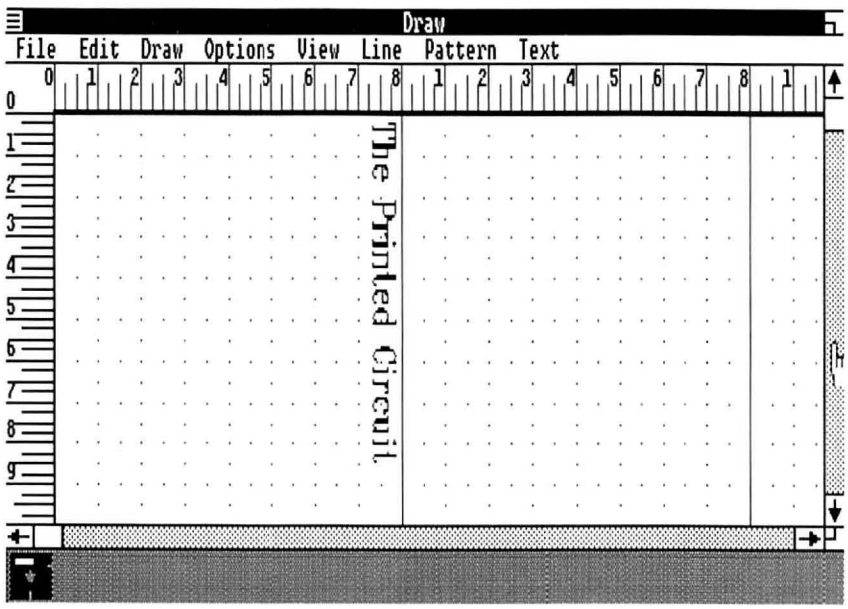
When text set in a standard font is printed, *Draw* looks for the corresponding LaserJet cartridge or internal font. If it fails to find a match, the program either substitutes another LaserJet font or creates a memory-hogging graphics font. Since LaserJet memory is always at a premium—particularly when 300-dpi graphics are being printed—make sure that standard text fonts specified in a *Draw* file match those in the LaserJet. Otherwise, the LaserJet may present you with a partially printed page—and an 'out of memory' message.

Because the first page of the newsletter will include only one memory-intensive graphic—a *1-2-3* bar chart—you can get away with using graphics fonts for the masthead, headlines, and the body of the newsletter. Only a small section of the masthead will require the standard text font.

From the Text menu, select the Roman graphics font, choose the Set Attributes command, and specify Bold Face and a point size of 54. To enter the masthead, pick Text from the Draw menu, move the pointer to the center of the page, click the mouse, and type The Printed Circuit. Don't worry if the masthead spills onto the second page.

The Block Select command from the Edit menu is the general-purpose pasteup tool. Triggering this command replaces the pointer with a pointing hand. Holding down the left mouse button and dragging the hand creates a dotted *bounding box* that can be wrapped around an image. Once encased, an image can be rotated, flipped, and moved around the page. To turn the masthead on its ear, place the bounding box entirely around the text and release the mouse button. The selected text is surrounded by little black boxes called *handles*. Press <F8> (Rotate) three times and the masthead turns counterclockwise in 90-degree increments until it is resting on its side. Because the masthead remains the current selection, position the pointer anywhere on the text and drag it down the page so the *t* in *Circuit* is even with the 8½-inch mark on the vertical ruler (see Screen 1). Be careful to place the pointer on a letter—yanking a handle will stretch the masthead.

To produce and position the subheading "A Weekly News Service for Mythical Employees," select a smaller point size (in this example, 10 point) and follow the steps outlined previously. Because 10 point is rather lilliputian in the Current Page view, you may prefer to enter the text in the Actual Size view, then step back to Current Page. To visually separate the masthead and subhead from the rest of the newsletter, draw two vertical lines (known as *rules* to typographers) about ⅛ inch apart using the Horz/Vert Line command from the Draw menu. Complete the masthead by entering the date, the volume and issue numbers, and the company name in



Screen 1: In Windows Draw, you can turn the masthead on its ear by pressing <F8> (Rotate) three times.

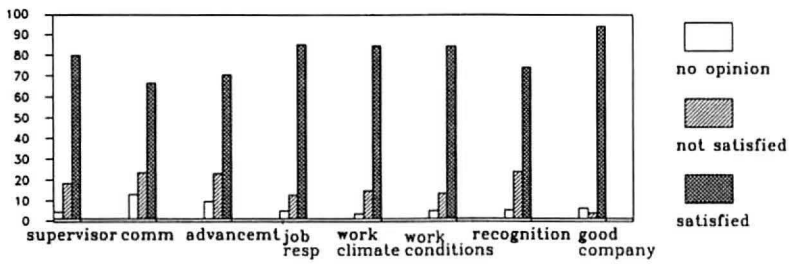
MESSAGE TO EMPLOYEES

Employee Review Results are Positive

Dear Fellow Mythical Employees:

Your responses to the Employee Review, summarized in this issue of The Printed Circuit, show your willingness to speak out about issues that concern you, and your interest in contributing to the success and growth of our Mythical Corporation.

More than 1,200 of you in the greater Xanadu area took the time to complete the questionnaire. You gave us worthwhile information that will help us improve our Mythical technology and productivity.



You told us that you like your jobs and you like working for Mythical. Most of you feel your contributions are recognized, but a few of you would like more Mythical feedback. You see quality as the issue most important to our continued success, not only in our Mythical products and services, but in every aspect of the jobs we do.

We have already taken steps to respond to some of your concerns and suggestions. In a recent letter to employees, Charles B. Unicorn, our Mythical president, pointed out his plan for maintaining Mythical's quality. Other Mythical activities and projects will address the remainder of your concerns.

Speaking for the senior management team, I want to thank each of you for your contributions to this year's review. Please continue to give us your ideas. They are vital to our continuing Mythical success.

Celestial Smith
Vice President/
Personnel and
Employee Relations

Celestial Smith

The Printed Circuit
A Weekly News Service for Mythical Employees
July 4, 1986
Volume 555
Issue 17632
Mythical Corporation

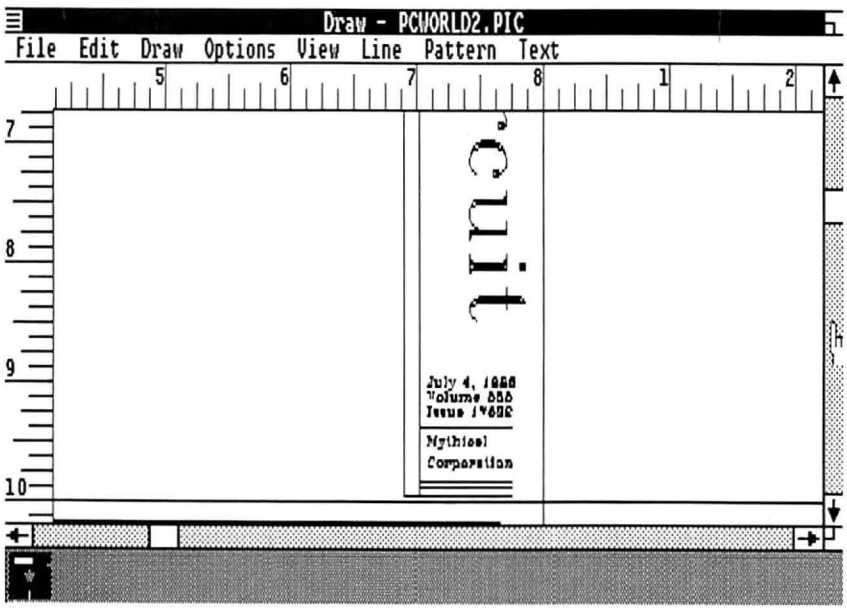
Figure 1: Microsoft Windows does page makeup—and it's easier than you think. Text was entered in Windows Write, a chart was created by 1-2-3, and all the elements were assembled in Windows Draw.

the 6-point Courier standard font, and set the masthead off with horizonal lines (see Screen 2). Save the page in a file called CIRCUIT and close *Draw*.

Write the First Time

Importing text created with a stand-alone word processor into *Write* isn't necessarily difficult, but the fancy formatting you may have slaved over will be ignored. The amount of data that *Write* can swallow in one gulp also varies. *Write* can open *Microsoft Word* documents directly and capture whole files from word processors designed to run in a Microsoft window. (At press time, only *pfs:write* could make that claim.) To import from other word processors you must rely on the *Windows* Clipboard, which can transfer only one screenful of data (about 2000 characters) from such applications at a time. Whatever word processor you use, edit and proofread a document carefully before moving it to *Draw*. As with most graphics programs, *Draw*'s text editing functions are primitive at best.

Draw is no *PageMaker*—you can't pour text into previously defined columns. Thus you should set the desired column width in *Write* before entering text in *Draw*. For the first page of *The Printed Circuit*, enter text single-spaced with a ragged right margin. For the two-column format on page 2, single-space the text and set the right margin at the 4-inch mark. *Write* cannot display two columns of text side by side, so you must enter all the items for page 2 in a single column and copy text an article or a column at a time into *Draw*.



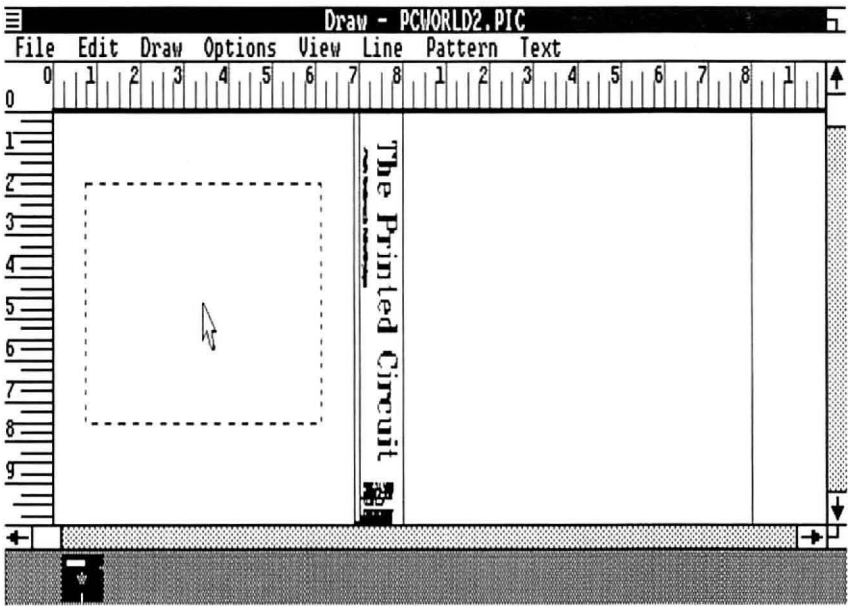
Screen 2: Adding publication information is a matter of shifting to the Actual Size view, selecting the 6-point Courier font, entering text, and adding horizontal rules.

All the News That Fits

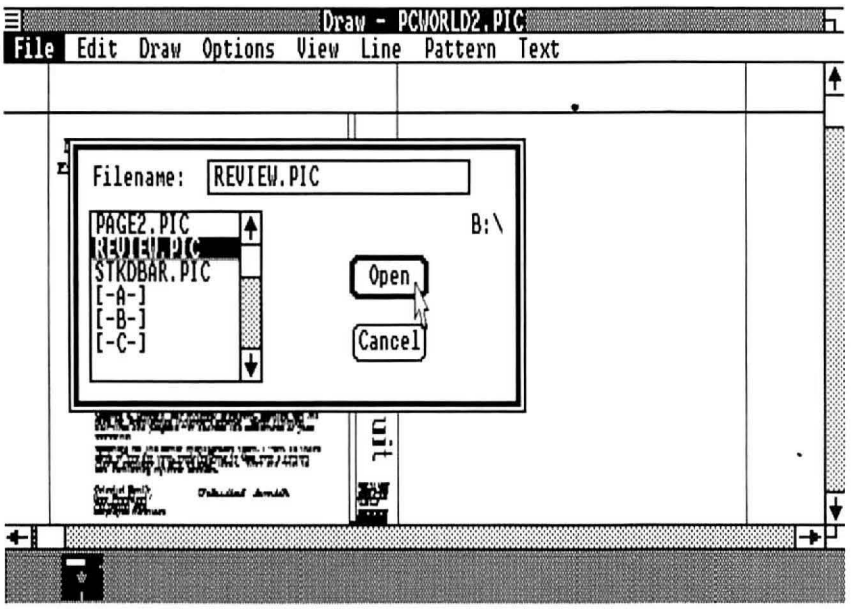
Within the *Windows* environment, the Clipboard can tote as much as 64K of data. Consequently, moving text from *Write* to *Draw* is quick and simple. To copy the lead article ("Message to Employees") to the Clipboard, highlight the item in the *Write* document by holding down the mouse button as you drag the pointer down the column of text. Choosing Copy from the Edit menu automatically copies the text to the Clipboard. Exit *Write*, load *Draw*, open the CIRCUIT.PIC file holding the masthead, and select the 12-point Roman graphics font. When the text is finally dropped into *Draw*, it will take on those attributes.

Choosing Paste from the Edit menu transforms the pointer into an outlined cross. Press the mouse button, and a bounding box equal to the size of the clipped text is displayed. To paste the text into place, position the box on the page and release the button (see Screen 3). If you're comfortable with multiple windows and you have an AT or a comparable machine, you can perform this fetch-and-carry operation with *Write* and *Draw* displayed side by side. That tactic makes it easier to gauge how much text will fit within a given space in *Draw* and spares you from constantly opening and closing these applications.

For extra impact, enlarge the "Message to Employees" headline. Enclose it in a bounding box, then choose the Roman graphics font with 36-point and bold attributes. If this expanded headline juts into the masthead to the right, you can



Screen 3: Cut-and-paste operations in Draw can be performed by positioning a bounding box (equal to the size of the clipped text) on the page.



Screen 4: To import a 1-2-3 .PIC file, simply select the Merge Lotus Graph command from the File menu, pick the appropriate graph, then click to Open.

reverse the action with *Draw*'s Undo command and repeat the procedure using a smaller point size, or merely grab a handle and shrink the headline. In this sample newsletter, the "Employee Review Results are Positive" subheading was also enlarged to 24 points. *Draw* does not automatically center text as a dedicated page composition program does, so you may have to perform this chore whenever you change the type size.

Text Meets Graphics

No newsletter (or business report, for that matter) can be taken seriously unless it has the obligatory bar or pie chart. Micrografx, aware of this unwritten law, equips *Draw* to directly import *1-2-3* and *Symphony* .PIC files. Once captured and converted, a graph can be manipulated like any other *Draw* object.

To make room for the graph on the first page of *The Printed Circuit*, select the last three paragraphs and closing of the article and move them to the bottom of the page. Choose the Merge Lotus Graph command from the File menu, pick the graph (in this case, a *1-2-3* graph called REVIEW.PIC) from the dialog box, and click on Open (see Screen 4). *Draw* always places immigrants on the leftmost displayed page. If the figure sprawls across existing images, no damage is done. The graph has already been selected and bracketed by handles, so merely drag it to the newsletter's blank second page and work on it there.

Before sizing the graph, you can add patterns to the bars, label the *x*-axis, and create a legend. Because Block Select is still active, filling a bar with a pattern is a matter of clicking on the bar, choosing a design from the Pattern menu, and releasing the mouse button. However, if a graph is originally saved with the *1-2-3* or *Symphony* default crosshatch pattern, the process grinds to a halt, since *Draw* treats every stripe in a bar as a separate object. When you first save a *1-2-3* graph, use the /Graph Options Color command to fill the bars with a solid color; with *Symphony*, set Hue to a color rather than a pattern. Once in *Draw*, the bars can be filled with any *Draw* pattern posthaste.

To label the *x*-axis, specify a font and a point size (the 8-point Roman graphics font was used in this example), choose Text from the Draw menu, and enter the label under each bar. To create a legend for the graph, select Rectangle from the Draw menu and generate a small box to the right of the graph. You can make exact duplicates by placing the pointer on the box, simultaneously pressing the mouse button and <Shift>, and pulling the pointer down. Fill the boxes with patterns matching the bars, and label them "no opinion," "not satisfied," and "satisfied" with the same font.

In order to size the graph and its new accoutrements, you must first turn the collection into a single *Draw* object. Surround the group with a bounding box, and select the Combine command from the Options menu. Remember that everything within the bounding box must be a graphic–standard text cannot be combined or scaled. Size the image by pulling and pushing the appropriate selection handles until the graph matches the space set aside on the first page of the newsletter. For that final, personalized touch, "sign" the newsletter with *Draw*'s Script font.

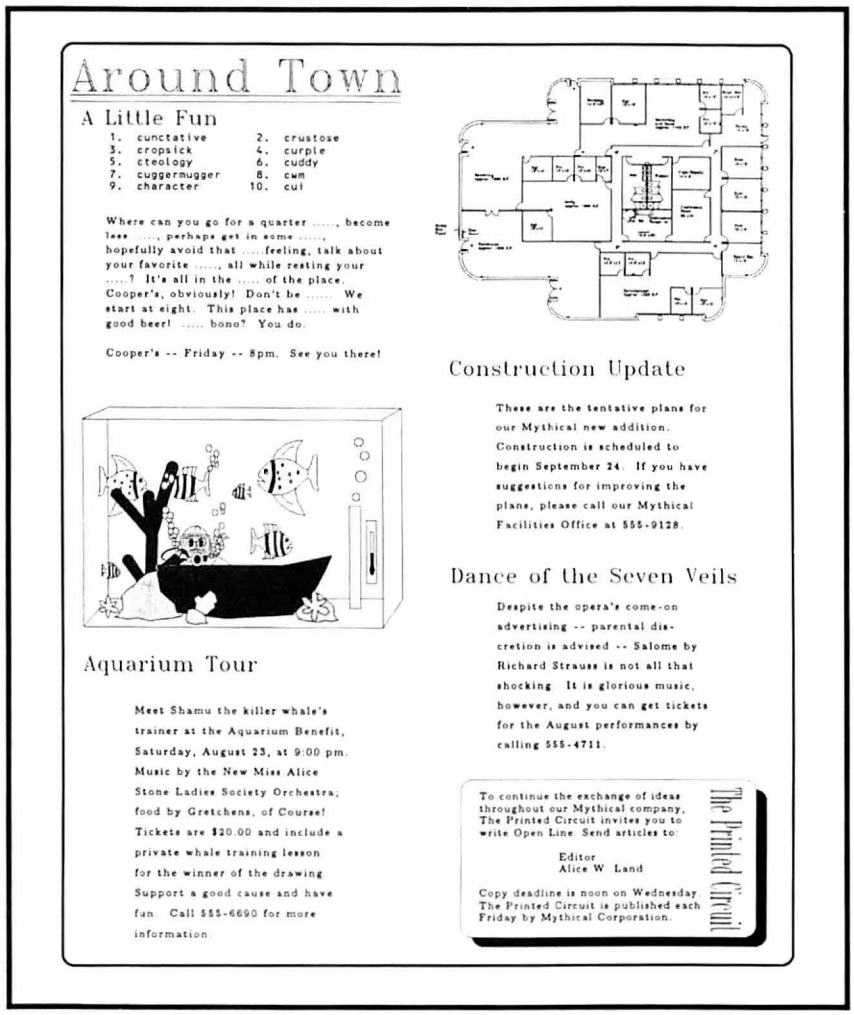


Figure 2: Page 2 of The Printed Circuit mixes graphics text and hand-drawn images, and saves printer memory by relying on standard text fonts for the bulk of the page.

The Flip Side

Building the second page of *The Printed Circuit* is mostly a matter of applying the skills you've learned so far (see Figure 2). The headlines are composed with graphics fonts, but the remaining text on the page is set in *Draw*'s standard fonts and the LaserJet's 92286B font cartridge. Set the headlines in the 16-point bold Roman graphics font and the article text in 10-point Tms Rmn standard font. You can form the page border with a thick rounded rectangle. To create the shadow box in the lower right corner, enclose the text in a rounded rectangle, drag a duplicate of the rectangle down and to the right, and fill it with black. Selecting *Draw*'s Move to Bottom command slips this "shadow" beneath the first rectangle.

The floor plan and the aquarium illustrations are sample .PIC files included on the *Draw* disk. To incorporate illustrations in the newsletter, use the Add Window command from the System menu. This vertically bisects the screen and loads another copy of *Draw* in the right window. Open the .PIC file in this new window, mark it with Block Select, size the image, and copy it to the Clipboard. Move the pointer to the first *Draw* window and paste the picture into the newsletter.

Newsletter by Laser

Putting your finished work on paper entails selecting the Print All Pages command from the File menu and waiting. On an XT using *Draw*'s 300-dpi LaserJet driver, it took 35 minutes to print the first page of the newsletter; on an AT, under 20 minutes. Performance can be improved and memory conserved by installing Micrografx's alternative driver, which prints text at 300 dpi and graphics at 150 dpi. To avoid the angst that sometimes pervades a LaserJet session, carefully examine documents on screen before sending them to the printer, and make sure the correct font cartridge is inserted in the LaserJet. If you have a dot matrix printer, you can also save time by quickly printing out a draft and making corrections before tangling with the LaserJet.

Avoiding HP's dreaded 'out of memory' error message is largely a matter of trial and error. To stay within the LaserJet Plus's memory constraints, you should generally use standard text fonts (which require little memory) for the body of a document and reserve graphics fonts for headlines, mastheads, titles, and decorative purposes. Because of the way *Draw* treats graphics, Micrografx also advises users not to go overboard with vertical and horizontal lines; according to the company, a full-page grid can easily bring the LaserJet Plus to its knees.

Open Windows

Windows, like the IBM PC, is an open system, and the future holds other, more capable page makeup programs (see "Taking a Page From the Pros," *PCW*, July 1986). Nonetheless, *Windows*, *Draw*, and *Write* in combination are a simple and inexpensive means of producing many documents that fall into the domain of personal computer publishing. Of course, slowness in printing, the lack of large, bold headlines, and *Draw*'s inability to maintain right justification of imported text are significant limitations. HP is reportedly developing drivers that address the first two problems, speeding up output and allowing programs to access LaserJet soft fonts. For true page composition, you may want to wait for *PageMaker* for the PC. But in the meantime, this is a low-cost solution that gets the job done.

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LaserJet Plus
Hewlett-Packard
800/367-4772
List price: $3995

Microsoft Windows version 1.01, Windows Write version 1.00
Microsoft Corp.
16011 N.E. 36th St.
Box 97107
Redmond, WA 98073-9717
206/882-8080
List price: $99
Requirements: 256K (512K recommended); two disk drives (hard disk recommended); DOS 2.00 or later version; IBM Color/Graphics Adapter, IBM Enhanced Graphics Adapter, Hercules Graphics Card, or compatible graphics board; appropriate monitor
Not copy protected

Windows Draw version 1.00
Micrografx, Inc.
1820 N. Greenville Ave.
Richardson, TX 75081
800/272-3729, 214/234-1769
List price: $199
Requirements: 320K (512K recommended); two disk drives (hard disk recommended); DOS 2.00 or later version; Microsoft Windows; IBM Color/Graphics Adapter, IBM Enhanced Graphics Adapter, Hercules Graphics Card, or compatible graphics board; appropriate monitor
Not copy protected