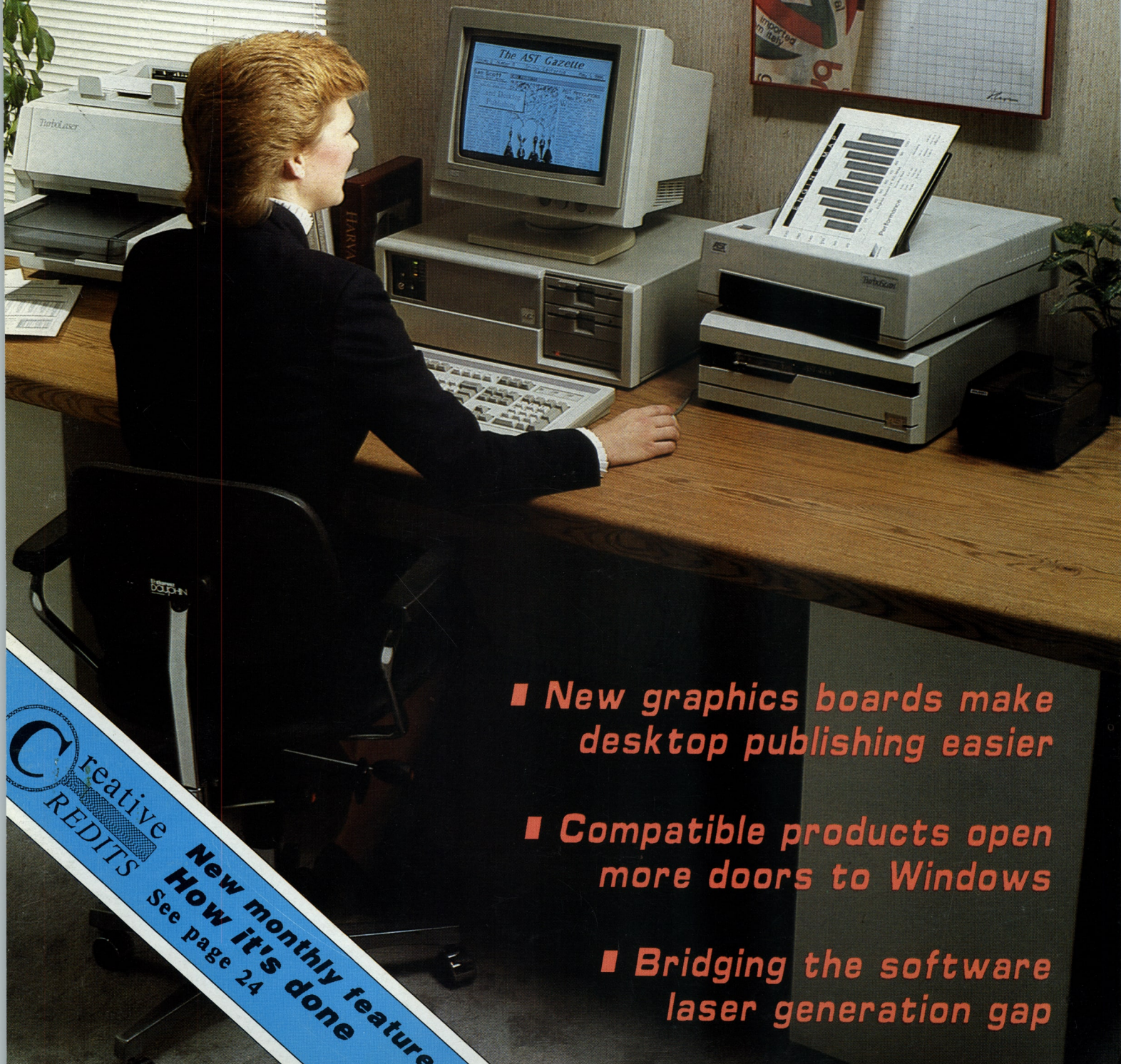


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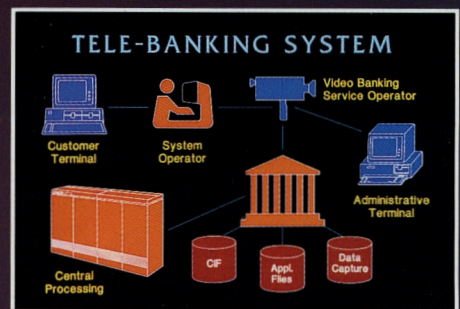
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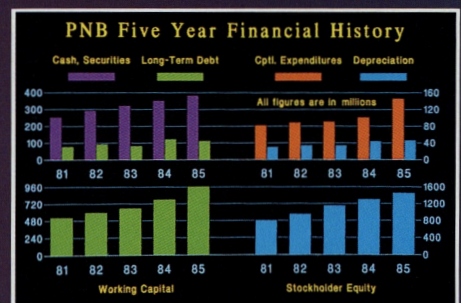
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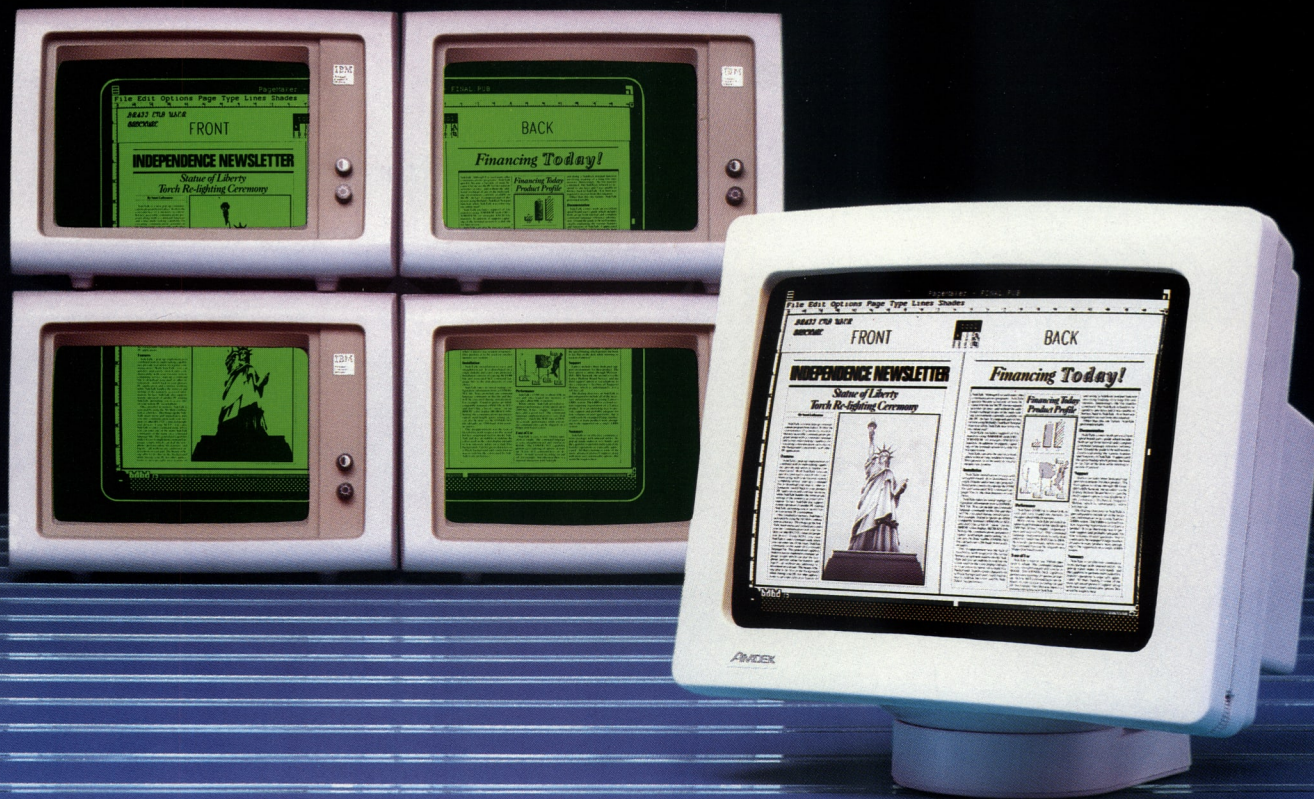
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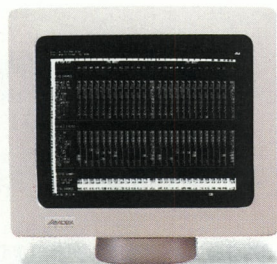
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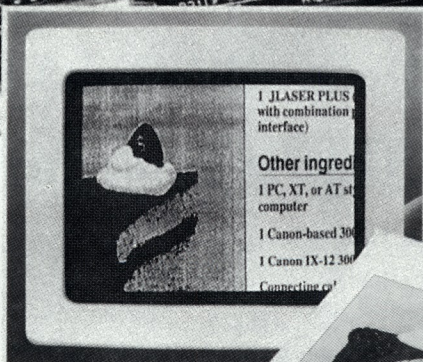
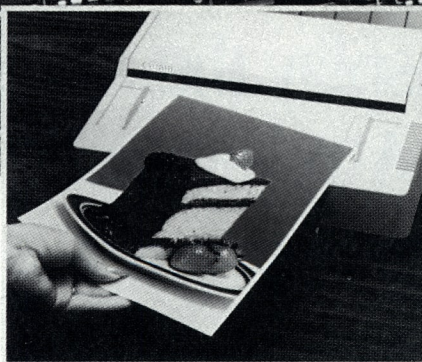
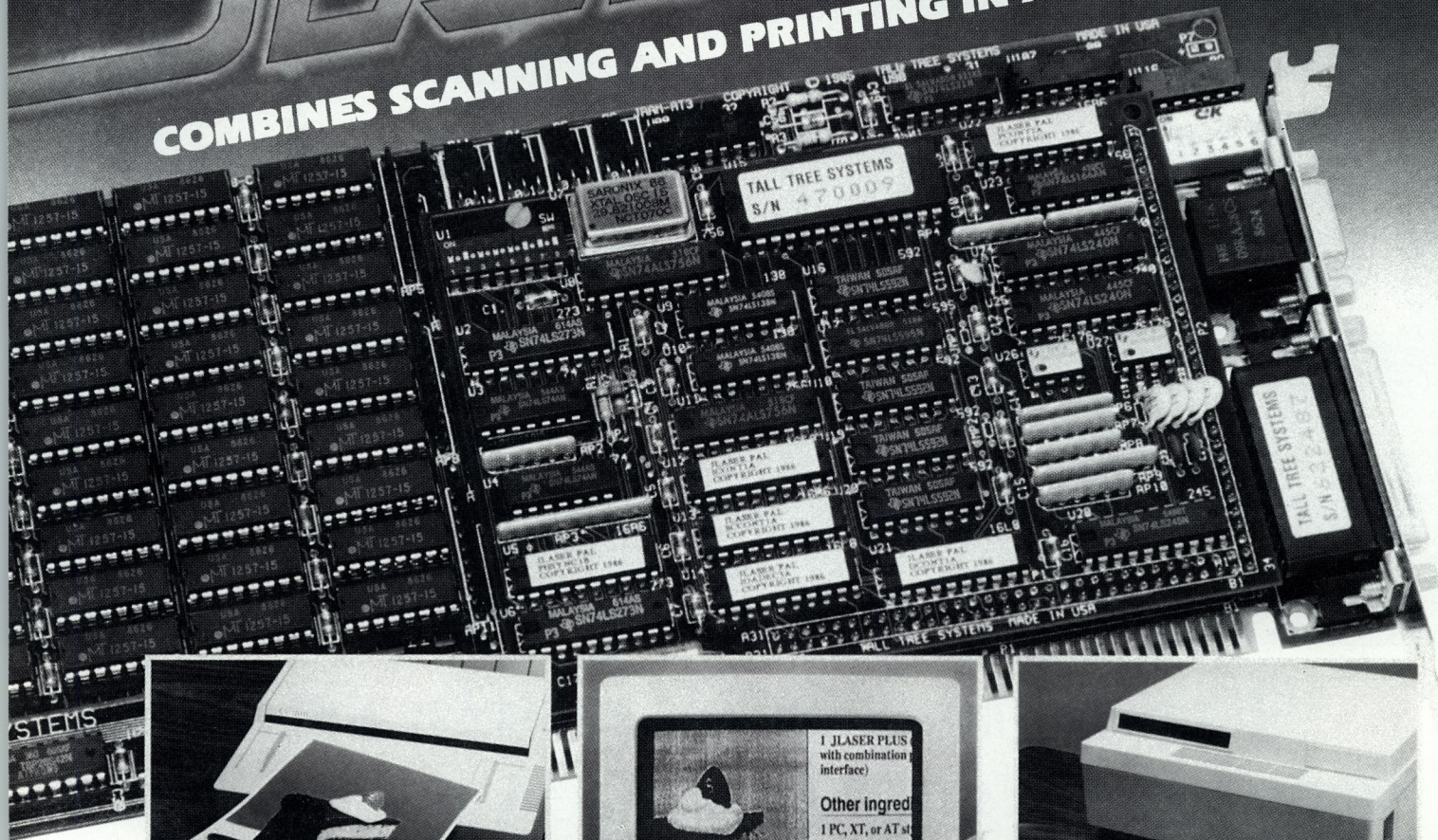
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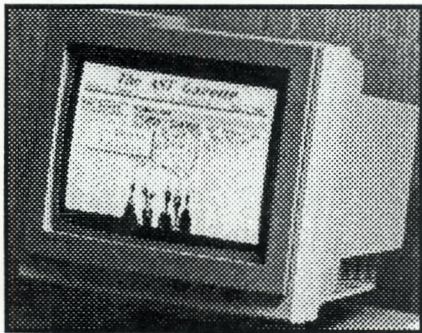
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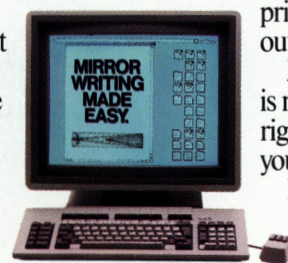
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NOTES FROM THE PUBLISHER

Now that Aldus PC PageMaker is finally shipping, it seems there is an obsession to compare it to the Macintosh version. While comparisons are interesting, their value to actual corporate end users is questionable. Software needs to be judged on its own merit.

Is it useful to the end user?

Simply stated, the corporate buyer will not change office hardware exclusively to run a single application. If that were the case, offices would have incompatible, dedicated machines to perform each individual function. Can you imagine an office with a spreadsheet computer, a word processing computer, a telecommunications computer, a publishing computer, a database computer, etc? Of course not! The days of dedicated hardware systems are over.

The goal of **PC Publishing Magazine** is to show IBM or compatible PC users what they **can** do with their office computers, not their limitations. Editorial concentrating on anything other than PC compatible applications is of little use to the corporate end user. Businesses have made their choice, and whether or not we like it, the choice is PC/MS-DOS.

PC Publishing Magazine will show you how to get the most out of your PC compatible computer - without wasting your time on products that are incompatible with your office.

Please let me know if anyone has successfully loaded a Macintosh, Atari ST, or Amiga diskette into their office PC compatible. Until then, you can expect PC Publishing Magazine to be 100% IBM compatible.

Shaun

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The Verticom View

By Hartley and Patricia Lesser

Entrance into the desktop publishing marketplace is no easy chore. Although nearly every vendor of an IBM micro and compatible product feels the need to offer some sort of package that fits into the desktop publishing niche, only a percentage of these companies will become the leaders. When one looks at the long term viability of the publishing marketplace, perhaps there is some semblance of sanity in the mad rush to bring products to this environment. However, the critical timing of such product introductions is predicated by company foresight into desktop publishing. Vendors who saw this niche opening a year or so ago, or those who have products that can be generally assimilated into the D-3 environs, stand the best chance of becoming the known leaders for this market. Verticom is one of these companies.

In order to process words, or incorporate graphics into a document, a display delivery system equal to the task must be installed into the computer. For Verticom, the entry into the D-3 environs from their CAD/CAM niche consists of their DeskTop 480 color graphics adapter. This plug-in board brings 640 by 480 resolution display to the likes of Ventura Publisher, PC PageMaker and Harvard Professional Publisher Advanced, as well as to GEM, Windows and Halo programs. All that has to be done is to install the Verticom display driver onto the selected program disk, or into that program's subdirectory folder. The board also has five major modes of operation: IBM Enhanced Graphics Adapter (EGA), IBM Color Graphics Adapter (CGA), Monochrome Display Adapter (MDA) and Hercules emulation (HGC). And this board is just the

start of an entire line of desktop publishing products for Verticom, according to Bob Butchko, the company's vice president of sales and marketing.

“We won't make any real progress to the paperless society until we get the kinds of workstations that will allow you to manage your work in one shot.”

— **Bob Butchko**
Vice President, Verticom

Verticom's first shipments of color graphics controllers began in April of 1985. Currently, all Verticom graphics controllers are centered around the Motorola MC68000 microprocessor, which offers parallel processing architecture. This architecture allows the board to perform many of the graphic processing tasks that would normally be managed by the Central Processing Unit (CPU) of the computer. Verticom has also managed to develop software drivers for most of the leading, open architecture PC-CAD applications software.

The ability for Verticom products to produce fast, onscreen, graphic transformations that include high performance vector writ-

ing, ultra-fast bit block transfer and polygon fill, have earned them an excellent reputation in the PC-CAD workplace. This same reputation is hoped to be earned in the D-3 workplace, as well.

"We have become very successful in the CAD environment in a very short time," said Butchko. "We really got started as a company that made graphic processors that could offload graphics from the CPU of the machine, process the graphics for the CPU, with the CPU only required to then tell the board where to draw the resultant graphics onscreen."

To understand the excitement at Verticom regarding their products, a little history lesson is in order. The first graphic devices were dumb display devices that could place an image on the screen, but all of the necessary calculations to accomplish this task were managed by the host mainframe. The just graphics revolution occurred when intelligence was placed at this terminal level. The term "workstation" was then applied to these display devices, or dumb terminals, because they were now capable of real distributed processing. The mainframe became nothing more than a big storage device that managed files. It is from the mainframe environment that the founders of Verticom have arrived: Richard Lussier from the environs at Honeywell, Intel and Masstor Corp.; William Chu from Zilog, American Microsystems and Bell Labs; Bob Butchko from Tektronix and Chromatics; and Tomas Romero from Datastream and NCR Corp.

"This same historical scenario is now being played on IBM micros

and their compatibles," Butchko stated. "It all started with the PC -- think of that computer as the mainframe managing all of the processing. Then, the PC began to get bogged down as more processing intensive applications were developed. About a year-and-a-half ago to two years ago, intelligent boards were designed to offload the PC and act just like the distributed processing workstation for a mainframe. This is the personal computer we have now.

"The only hiccup in this whole scenario is that the graphic programs written for the PC were written almost like the old mainframe programs. They weren't written to be distributed out, and that's changing. These programs are evolving as time goes on."

When will such a dramatic change for graphic processing become universal? According to Butchko, that will occur when AutoCAD makes the jump, in a full sense, to other intelligent peripherals inside PCs. "That is when the world will really know that the change has occurred."

Verticom is taking their knowledge and true graphic processing capability they already possess and providing this expertise for not only the CAD environment, but for desktop publishing as well. With enhanced visual displays, D-3 productivity becomes far easier for the user..

"The vehicle we have decided to implement first is the Intel 786 chip," said Butchko, "Our first product is the DeskTop 480, a real, get-your-foot-in-the-door desktop publishing offering."

Why did Verticom select the Intel 786 chip over the Texas Instruments (TI) graphics processor?

"We've found that the Intel chip is really the right vehicle for us to use in the creation of boards for desktop publishing displays. That chip supports Windows, GEM, as well as the other standards that are required to support the likes of Ventura Publisher and PC PageMaker."

The Intel graphics processor is a lot easier to deal with over the long run, as the chip is really a coprocessor tuned into other Intel

devices inside the PC. The languages involved and the programming you have to do to include the Intel chip with other Intel products inside the PC - whether they are the 286 or the 386 CPUs -- is a lot less severe, less of a programming commitment, and requires less time to integrate for the product to get to market than with the Texas Instruments chip.

"If you go with TI, you have to make a very large company commitment to that chip. All of your coding, now and in the future, is going to have to be assembly language assigned strictly to the TI device, which is not a coprocessor."

Fundamentally, the vendor's decision as to which graphics processor to use rests upon their preference in how to access the display memory of the computer.

The company first has to decide on the Central Processing Unit, either the 80286 or the 80386 chip. If the TI chip is going to be used, to get to the display memory, you've got to always go through the TI chip to address that memory. There are certain maneuvers possible to bypass that chip, but such incurs wasted time -- literally pixel writing time -- which slows the whole system down. And processing speed is crucial to graphics production.

"Right now, our company has chosen, over the last couple of years, to base our products on the Motorola 68000. Now, if you go to Sun, Apollo, Chromatix, if you go to any one of the high end graphics device makers, all of which require intense graphics computing power, they all use the Motorola 68000 chip. It is just the best graphics chip that has been made. As a company, we've obviously got a lot of time invested in programming to this device. But if you use a coprocessor to the Intel device we can access the display memory directly from the PC, or through the Intel device. Our programming remains viable. We also saw that in order for our product to get to the market quickly, it would have to be through a coprocessor rather than redeveloping our software for the TI chip. From a horsepower point of

view, the performance of the Intel device is equal to that of the TI chip. There are no overwhelming differences between the two chips."

Verticom is going to stay with the Intel 786 chip for their first generation of products. The second product generation will probably see some of the company's own proprietary devices being utilized in the boards. The company is currently redoing their first generation chips. Butchko predicted that by the summer of 1987, Verticom will have ready the next generation of graphic engine chips, which will be a lot further advanced than the devices currently being offered.

Of some concern to us is that, currently, most of the graphic boards basically look alike, feel alike, and operate alike. We asked Bob his opinion of how much more performance will we be seeing when the next generation of products are released for the D-3 marketplace?

"That's still up in the air," remarked Butchko. "Hopefully, there will be a significant increase in some areas that will cause you to remark that this is, indeed, a more sophisticated offering. I think what is the most important issue there is that although there may be an increase in performance, one that can be visually perceived, the main factor will be -- well, what can this product manage from an overall point of view? The major concern won't necessarily be does this board process one one-thousandth of a second better than a competing board. Queries will center around such features as: What IBM product does it emulate? Does it emulate the color, the monochrome, the EGA, and what kind of emulation is it? If it emulates these modes, how does it accomplish the emulation? Does it manage the emulation with switches? Do you have to plug in other boards next to it in order to obtain these differing emulations? Can you run CAD programs with the board? Does it have an AutoCAD driver? These are the questions of importance. How efficient, in a total sense, is the product.

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Circle 235 on reader service card

When asked financially what Verticom expect from the D-3 marketplace, Bob indicated that he was not at liberty to discuss the revenue percentages the company expects from their desktop publishing program.

"We really look to 1987 as our entry year," he indicated. "and we feel that a small, but significant portion, of our revenues will initially be generated by desktop publishing. This is a risk for us. This is a new scenario, a new industry, and you have to be careful. We're not going to the bank with desktop publishing - yet. Desktop publishing's success will be the icing on our cake."

As Verticom is a rather small company, we inquired as to how Bob intends to position against the likes of much larger, and heavily financed, competitive companies.

"We'll position ourselves mainly from a technology point of view. We just have better technology. We have been in the graphics processing environment a lot more than those other companies. We're really going to try to stay at the high end of the marketplace. We should, as a company, become more powerful every day as machines like the 386 become available. Up until now, our kind of graphic processing was waiting in idle for the PC's CPU to give us information. The better that information relay gets, the better we're going to be."

Verticom also sees more niche markets opening up as the 80386 computers come online. Given as examples were mapping, where thousands of vectors have to be drawn. And imaging and remote sensing -- all those areas where the limited power of the PC prevented that niche from maturing.

"Desktop publishing fits right in with that, because each vertical market requires that you supply words with your pictures. The person that best integrates desktop publishing with any other vertical market niche application is the one that's going to be out ahead of the game."

And how does he see the growth of the D-3 environment?

"Desktop publishing over the calendar year of '87 will get itself es-

tablished as one more part of the whole productivity scenario. Over the 1988 calendar year is when the inclusion of all the different things will start coming together, but we'll probably be into '89 before desktop publishing capabilities becomes readily apparent and people start using its resources effectively. It'll be well into early summer of this year before we see most of the announced desktop publishing packages finally getting to the marketplace. We see two parts to this industry: one part is people using desktop publishing as a word processor enhancement; the second part consists of those people using desktop publishing as a portion of a larger system, another piece of the pie. Verticom sides with the piece of the pie side."

The DeskTop 480 is Verticom's first desktop publishing product which possesses the same high caliber graphics processing technology as their PC-CAD products. The price of the DT480 is \$595 which includes the Microsoft InPort device right on the board. The board also carries a one year warranty. The only software that currently runs on the DeskTop 480 is Aldus' PC PageMaker and the Xerox/Ventura Publisher with runtime GEM. DeskTop 480 emulates the EGA, CGA, MDA and HGC graphics modes. The board has a Chips and Technologies chip set.

Verticom is also planning to release a more sophisticated version of the DeskTop 480 late in the first quarter of 1987. This enhanced board is their DeskTop 1280, a full blown, very high resolution desktop publishing product incorporating the Intel chip. The 1280 will possess only CGA emulation.

"The reason for that," said Bob, "is that it's pretty tough to find programs that were written just for the EGA because of the color. The DeskTop 1280 is going to be monochrome. And then down the road we'll get into color in the desktop publishing realm. The state of the art's not there yet. It's silly to talk about color in desktop publishing."


The resolution of the new board will be 1280 by 960. The

board will be bundled with a multi-sync monitor, either the NEC, the Sony, or the Mitsubishi. However, each of these monitors requires a different signal. As of this writing, Verticom boards support only the NEC and Mitsubishi monitors.

Pricing on the 1280 will be below \$1,400 list price, and there will be two monitor sizes available - a 15" and a 19" monitor. The 15" will be below \$900, and the 19" will be below \$1,400.

Even Butchko acknowledges that as the D-3 environment grows, higher and higher performance standards will be set by differing products that are released. The graphic board market has not even begun to scratch the surface of display possibilities. But Bob is quite certain that regardless of what graphics standards will become the new minimum configuration for publishing, Verticom will be standing in the forefront with that particular product in-hand.

Verticom, Inc. 545 Weddell Drive Sunnyvale, CA 94089-2114 408/747-1222 800/433-5760 (outside California). \$



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WordStar (Micropro)
LOGO DIGITIZED
Canon Image Scanner (Canon)
JLaser Plus-AT (Tall Tree)
OUTPUT
AST TurboLaser

**Want more detail?
Turn to page 24.**

The AST Premium Publisher

By Shaun Ralston

The virtues of desktop publishing are now being recognized by many of today's largest corporations. Although, only a handful can justify the expense of installing dedicated desktop publishing systems such as the Apple Macintosh or Interleaf workstation. While these dedicated hardware systems perform quite well for publishing documents, they remain incompatible with the standard IBM PC office computer.

AST Research recognized the need to provide a desktop publishing solution for corporate users who demand PC compatibility. With the introduction of the AST Premium Publisher, AST has set a new standard in corporate desktop publishing. The system consists of a combination of AST products, including the new AT-compatible Premium/286 personal computer, the AST TurboScan page scanner, the AST TurboLaser printer and several board-level enhancement products. Each part of the Premium Publisher is completely PC compatible and may be used with your other PC-based office computers.

The heart of the system is the AST Premium/286 computer, a high-performance workstation engine that runs at 10/8/6 MHz with zero memory wait states for fast operation in the publishing environment. And, through the advanced bus architecture, compatibility is completely maintained with AT hardware and software. The speed of this machine is amazing and approaches the performance of 386-based machines due to quick access time to the system bus. Standard features of the Premium/286 model used in the Premium Publisher include one-megabyte RAM, a 40-megabyte hard disk, a 1.2 megabyte floppy, a special display with resolu-

tion of 720-by-348 allowing for sharp presentation of publishing software. An AST-3G Plus multi-mode enhanced graphics adapter card supports IBM EGA, CGA, MDA, and Hercules Graphics Card modes, allowing a user to easily upgrade from the monochrome monitor to color.

the ability to scan documents up to 8.5 by 14 inches in size. The TurboScan also provides three scanning modes; line art, halftones, and mixed.

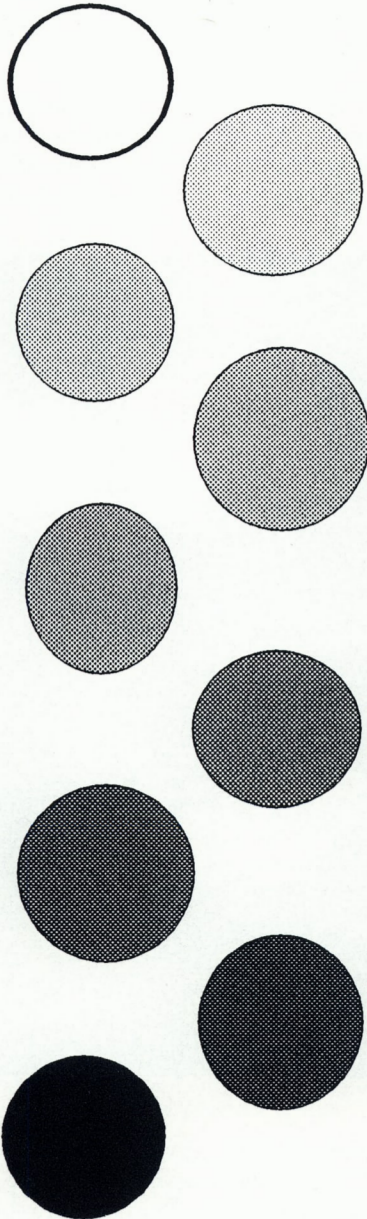
But perhaps the most outstanding feature of the AST offering is their high-performance TurboLaser printer which produces near typeset



The AST TurboScan is a high-resolution, high-speed document scanner that can be used to convert text, handwriting, artwork and photographs into files for use by the desktop publishing software. This scanner allows a user to merge text and graphics from different sources into a single, camera-ready document. Key features include 300-dots-per-inch (dpi) resolution and

quality output. Most laser printers fall short when faced with large, dark images (charts, graphs, artwork, photos, etc.) and will leave these sections appearing gray and streaked. The TurboLaser, on the other hand, does a remarkable job of printing black images at their full intensity and accurately reproducing photographs using gray screens. Speed must be considered as

*Outstanding features
of the AST TurboLaser
include variable shading
and reverse text :*



Reverse Text

another important feature delivering eight originals per minute while other laser printers take up to 15 minutes to produce a single original page. The TurboLaser's speed and full page bitmapped capabilities can be attributed to a Motorola 68000 processor and 1.5 Mbytes of dedicated memory. In addition to its desktop publishing capabilities, the TurboLaser emulates Epson dot-matrix printers, Diablo letter-quality printers, and Hewlett-Packard plotters (through HPLG). These emulations enable the printer to work with most of your existing software without modification. The controls are conveniently located on the front of the printer including the toner drawer, paper tray (which holds 250 sheets), indicator lights, and output tray (which ejects paper face down thereby collating your pages). This amazing printer has hundreds of fonts which are available from third party software vendors. The AST TurboLaser truly sets a new standard in laser printing that puts Apple's LaserWriter to shame.

Included with the Premium Publisher are more than 75 typefaces, ranging from 6 points to 36 points, from the Bitstream Bestseller Library. In addition, a large library of optional fonts is available from Straightforward Software Inc.

The Premium Publisher workstation will work with virtually any IBM PC-compatible software, including such popular desktop publishing packages as Xerox Ventura Publisher, Aldus Pagemaker, FrontPage, DPE, and PageWork. The AST Premium Publisher was used to produce this issue of PC Publishing Magazine along with Xerox Ventura Publisher software. The Premium Publisher's performance exceeded that of dedicated publishing systems costing ten times as much.

The AST Premium Publisher system provides high performance desktop publishing for the PC compatible office environment. It is the most complete and cost effective

desktop publishing system under \$10,000. The AST Premium Publisher is now shipping and retails for \$9995 and includes the Premium/286 computer with high resolution monochrome monitor, the AST TurboScan and the remarkable AST TurboLaser printer. The system is also available without the TurboScan and retails for \$7995.

For more information contact AST Research Inc, 2121 Alton Avenue, Irvine, CA 92714, (714) 863-1333. §

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REDITS

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WORD PROCESSOR
MS-Word (Microsoft)
IMAGES
AST TurboScan
OUTPUT
AST TurboLaser

**Want more detail?
Turn to page 24.**

GRAPHICALLY SPEAKING

by Larry Purcell

The new year is 1987, three past Orwell and still counting. This is a time for resolution -- perhaps revolution. But as computer graphics and desktop publishing users and professionals, our insurgency is generally limited to calling the deputy product manager for Bitty-Bite Software Company to report a minor bug or typo in their product's documentation. Major glitches are reported in a far more glamorous fashion by the likes of John Dvorak in one of his monthly columns in PC magazine.

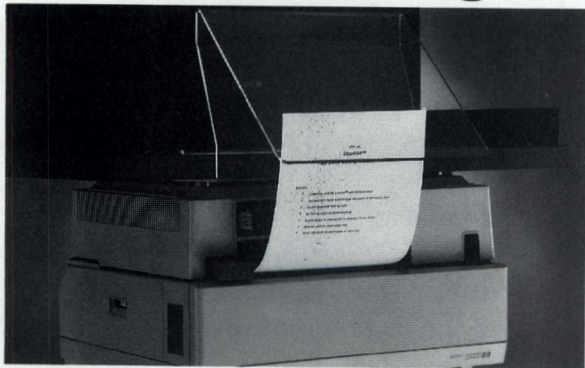
Glitches become major when either a large contingency of unhappy users band together (sometimes resulting in the dreaded user group) and stir up trouble (read "bad press"), or the OEM/VAR network forms a lynching party. The fact is that there are enough aggravating and frustrating occurrences of the Major Glitch type ex-

perienced by Joe and Joan User every day to give rise to a real revolution.

Have you ever noticed that just when you're using your application to its fullest potential that the software publisher releases a new REV.? How about that graphics board - the one you've reconfigured so that your system can take advantage of its speed or higher resolution? Didn't the manufacturer only just announce a smaller, faster, easier to use, able to leaptall buildings board at COMDEX?

There really is a sense of anger, either at the manufacturer or the person who sold the product to you because you weren't INFORMED about the upgrade. We've discussed this (continued page 20)

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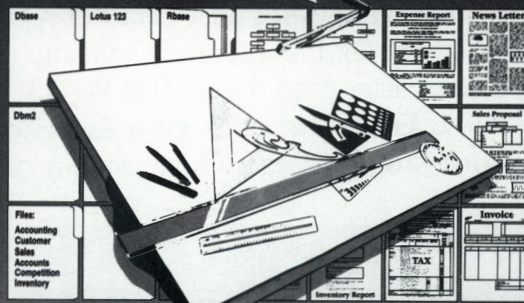
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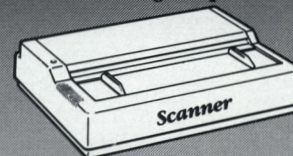
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AST Takes the Desktop P

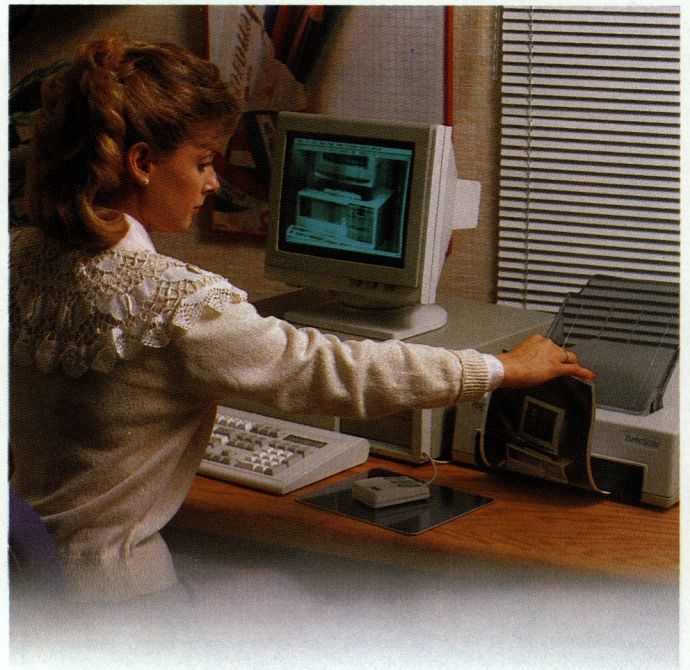


Desktop publishing is easier than you think. In fact, unpacking the AST Premium Publisher™ complete desktop publishing system leaves only five more steps to professional-looking presentations, business forms, newsletters,

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You can also create your own graphics using popular graphics art software including PC Paint™, PC Paint Plus™, PC Paintbrush™ or PC Paintbrush Plus™.

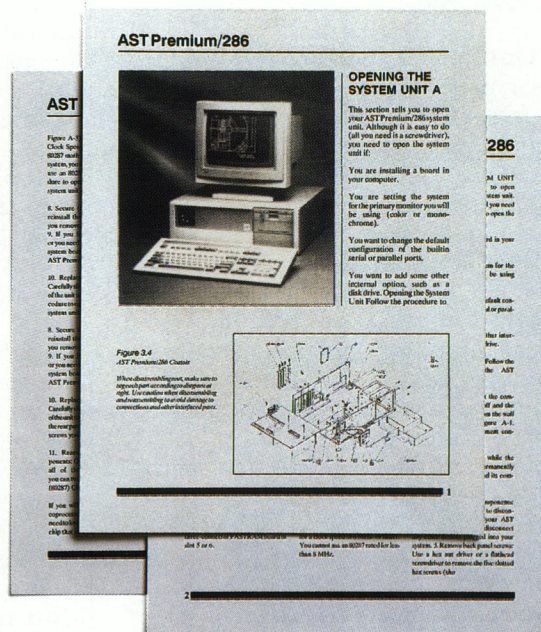
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problem before—and I talk readily and with some frequency to computer graphics/desktop publishing companies about those self-same problems.

The truth of the matter is that while a lot of finger pointing is going on, both sides are faced with a cross-dilemma. When a computer graphics company presents a product to the consumer, generally through a representative company such as a value added reseller (VAR) or a computer store, that firm has committed to that product's workability and serviceability. The company is responsible for the claims that the product is said to fulfill. We like to assume that those companies have spent as much time and money on research and product development as they have on research and product development.

The supposed purpose of market research is to determine some simple, but salient, facts: is there a need for the product; will people buy the product; will they use, will they buy the product for this much money; how many people will buy the offering; how will we find the people who will buy it; and how will we get them to buy the product. I know you're not going to believe this, but some computer graphics companies don't do any market research, product planning, product development or advertising. And some computer graphics/desktop publishing companies spend millions of dollars on R&D, but are so concerned about their 'baby' facing the real world, that they keep it in the nursery. This uses up more R&D dollars and the company is always so surprised when their marketing window has been slammed and nailed shut.

A key to successful product marketing is an ability to target that product to the largest prospective community of users who possess a common need. Any number of products and companies come immediately to mind. But many successful products, while they are universally satisfactory to "Everyman" as a user, seem to leave out these special bells and whistles so important to the sophisticates. We can't fault the company--they're simply doing a good job of implementing their market research. What we can and should respond to are the com-

panies whose product managers are influenced by either the dynamic minority of elitist users trying for their bells and whistles at the cost of general acceptance by the masses, or companies responding to peer pressure to play one-upmanship with their competitors at the cost of a stable user community. There was an old saying auto dealers' mechanics used to throw about -- "I know it's obsolete because it works!"

On the other side of the coin, we, the user, present some unique and terribly frustrating problems for these companies. Basically, we're a fickle crowd. For every one of us that is unhappy that our favorite manufacturer has announced a new card that combines all of the capabilities of their entire product line on one, new board for HALF of what we paid for our single function board, an equal number of us will sail their old board out of the window like a frisbee and gallop down to the nearest computer retailer to purchase the new whiz-zbang. Does he or she require this new board; is it affordable; does it work -- and how, in fact, does the new board function? What, then, is the poor product planner to do? After all, sales are brisk, and that's the entire purpose of business - to make money.

Consider the alternatives: don't produce the new board and be chopped to pieces by your competitors; build half as many boards as your forecast calls for, in deference to the fickle factor, and have success catch you short of boards. In either scenario, the product manager may soon be looking elsewhere for work.

Just so we have a point of reference, let's address a real situation. Let's look at the facsimile machine, kissing kin to scanners. We had a FAX machine, a circa 1981 Burroughs DEX 1100. We were continually using this machine to transfer documents from one station to another. The machine was slow, awkward and cumbersome to use. The 1100 required a special silver paper, had no ability to hold a phone line beyond a one page document -- transmitting or receiving -- but worked smoothly and regularly, interfacing with all of the new and fancy machines from AT&T, Panasonic and the like.

We were just about to commit to one of these high tech and fairly expensive, dedicated machines without a second thought or even product investigation, when suddenly, at COMDEX, a new FAX board appeared on the horizon. This offering drops into a slot in one's PC or compatible, immediately provides the user with Group III fax capabilities in a background mode, you can send/receive, view, edit, save and print. You can even 'batch' after dark, and use the auto send/receive mode. The pricing is very competitive with the other dedication machines, the software application is integrated, and there's one less footprint on your desktop. So, what could have been a costly leap into a machine with less capability was negated, thanks to a two-day visit to Vegas and the COMDEX trade exhibition.

But what if we hadn't been forced to be procrastinators? That's the revolution we are commending to users -- resolve to be smarter about your needs, more aware of trends, ask key questions -- not just about the product's features and benefits -- about the marketplace, the company, its position and its competitors. Be heard; if something isn't right or could be better, let the manufacturer or software publisher know by calling or writing -- if the program doesn't get attention or results, tell us about -- we'll call them as well! Lastly, read more and stay aware -- make this the best year you've ever had, especially when it comes to your D-3 productivity. See you next issue. — *Larry §*

The logo features a large, stylized letter 'C' inside a circle. To the right of the circle, the word 'Creative' is written in a serif font, and 'CREDITS' is written below it in a bold, sans-serif font. A horizontal line extends from the right side of the 'C' circle, passing through the text.

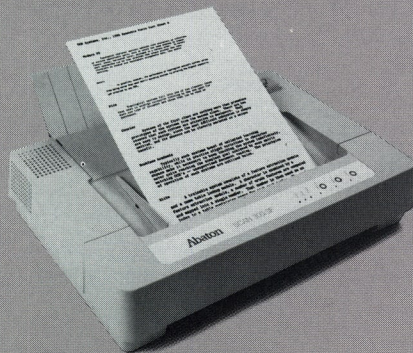
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Turn to page 24.

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Crystal Publishing System

A CRYSTAL CLEAR SOLUTION FOR CORPORATE PUBLISHING

By Hartley & Patricia Lesser

In October of last year, a company known as Syntactics Corporation released a desktop publishing product for the UNIX operating environment called the Crystal Publishing System. This D-3 niche was comprised, actually, of two separate products: The CrystalWriter Plus word processing program and the CrystalTypeset package.

This sophisticated program provides for document formatting on two levels. The first level is global, wherein supervisors can define model documents for constant formats. The second level is local, suited for handling document exceptions without commuting the global definitions of the document.

A model document simply formats the size and placement of text, paragraph and column width, font style, and the point size of various document components, such as headers and footers. As the entire system is object-based, all components are recognized as such by the software, and users can make changes in one or many documents through a single menu.

One of the real pluses to this system, especially in the UNIX environs, is the fact that extensive training is not required to learn program functions. There is no need to exit the word processor to enter a separate typesetting program, as this is controlled through one, simple menu. Output can be directed to the Hewlett Packard LaserJet and LaserJet PLUS, Apple LaserWriter, Imagen, and other similar printers, as well as to commercial typesetters, such as APS, Compugraphic and Linotronic. Additionally, due to the program's open architecture, programmers can easily add new features to the system. The package runs on such systems as the AT&T 3B series, UNIX PC, NCR Tower, DEC VAX and other multi-user, UNIX- or XENIX-based computers.

And therein lay the problem for MS/PCDOS machines -- there was no version of the Crystal Publishing System for their systems, remaining relegated to UNIX and XENIX users with their powerful, multi-user systems and little time to devote to single user considerations.

That has now changed, for there is now an MSDOS version of the Crystal Publishing System. Syntactics has released their MSDOS version of this

powerful product. As an integrated package, even last minute editing can be managed with this offering as well as other utilitarian types of work, such as spell checking and correction and mail merge, all in conjunction with the publishing program itself.

We recently had the opportunity to talk with Erwin Morton, the president of Syntactics, regarding his product and its targeting in the D-3 environment. We also inquired as to his thoughts regarding the differences between Crystal Publishing Systems and the other products that have already entered, or are making their way, into this marketplace.

"We have come to document design and delivery from the word processing world rather than the graphics world," he said of his program. "We look at our product as something much broader than just a desktop publishing tool. The Crystal Publishing System will handle all of the documents that are created in an office environment."

Mr. Morton reasoned that there are currently a number of products on the market that can handle small, graphically oriented documents. He is of the opinion that most of these products fall down when it comes to preparing larger documents, or need to become involved in the production of high quality text. His company's foray into the publishing environment was NOT with the objective of becoming a graphics package, but one that would import graphics into a document from a variety of external sources. His first concern is to make certain that the text looks good, import the graphics, to look at the document from a management perspective, and to offer what he calls "one-button typesetting".

"This is not a desktop publishing program but a corporate publishing program," he said. "Our primary target is Fortune 500, government, but we're also interested in selling to smaller customers as well, both directly and through distribution channels. But the primary target is to offer the product to larger organizations."

He cited a couple of examples where he sees the Crystal Publishing System as having beneficial effect. The company originally identified a need for a program that would do more than handle just simple documents. He mentioned the law office, where people need high quality documents for con-

tracts, correspondence and briefs -- all requiring fairly complex and consistent layouts. The Syntactics product goal was to automate the production of that kind of complex document, to manage both intricate and repetitive formatting, and to handle very large documents.

*"All God's
chil'ren
do publishing."*

Erwin Morton, President
Syntactics Corporation

"The approach we took turned out to be very powerful and allowed us to cover a very broad range of document types," he said. "For example, I know of a large software company that, when they released a new product, there's about 4,000 pages of new documentation that must also be completed. This company has ten writers working on PCs, and when the company gets close to product release, ten writers deliver their text to the composition department, which is using one Interleaf station. That Interleaf station at product release time looks like the toll plaza at the Golden Gate Bridge during commute hours.

"Everything imaginable comes through this bottleneck. The structure we've created allows us to alleviate that bottleneck because the composition department can design all the documents, but never has to touch most of the document. Most of the production work is done using the word processor. This product isn't something that just accepts input from a word processor, but something that is fully integrated with a word processor. So, you get all of the word processing features directly inside the publishing system. And you get all of the formatting directly inside the word processor. It's two products that acts as a unified whole."

Such advantages seem quite clear. Naturally, this takes on the aspect of being a one-step process. There shouldn't be any problems when you go to that last minute editing process.

"I don't want to get into the aspect of knocking the competition," he con-

tinued, "but I do have to give the readers of PC Publishing some product comparisons. PageMaker is a very fine product for short, high graphic content documents. But, as the documents get larger, the amount of work grows with the size of the document, because formatting the text is a manual operation with that program. Here, with our product, you've never left the word processor. You can add your paragraph here, and the program deals with the layout issues transparently."

The Crystal Publishing System also offers integration of mail merge and spelling correction within the total package.


"Let me give you an example of a high-end requirement that we have found we can successfully address," Erwin said. "Even a product like Interleaf can't do this job. I was recently a guest speaker on a panel with representatives of Interleaf and Apollo. We were queried by an employee from a major corporation whose product documentation required a six-foot shelf for storage. His problem was that this product could be ordered by a customer in different configurations. So he had to be able to, on demand, create numerous versions of that six-foot shelf. He wanted to know if any of our products could assist him with this task

"It turned out we were the only product that could offer him a solution. He's got his documentation information in a database, and he can use that database to drive the mail merge capabilities in the Crystal Publishing System. You use mail merge to generate one 30,000 page document instead of creating a whole bunch of little documents with another program."

Running across MSDOS, XENIX and UNIX also opens up the publishing circle for a great many users. And there is full user-interface and file compatibility between these systems. This is very important to a big shop, because a UNIX machine can be turned into a backend publishing engine which allows the editing to be done on PCs. This makes the maintenance of documents much more manageable. As standardization is a big key issue in large corporations, it seems to be quite prudent to have everyone able to create documents that conform to a stated company style. Such corporation standards can be easily set with this product.

"CrystalWriter is, as far as I know, the world's only object-based word processor, and has been since 1982," Morton said. "The documents have not only text, but structure as well. In that respect, our product goes further than Interleaf, which lets you define objects and components within a document. But, if you have two documents, or 200 documents, or 30 users, you have no way of coordinating these. We have a better structure than they do in that each document is based upon a model document and you can have object definitions both in the document and the model document.

"Now, a model is really nothing more than another document, but its only purpose is to serve as a repository for definitions across many documents. A model can control the layout of multiple documents, and you can have as many models as you like. You could have a model titled manual, or proposal, or letter, and you have guaranteed consistency without effort.



Creative REDITS

Each issue of PC Publishing is completely produced on an IBM or compatible PC. One of our chief goals is to demonstrate the actual pages you can create without leaving your desk. For that reason, all editorial pages are laser

printed in black and white. You'll find a *creative credits* box after each article which lists the products used in creating that article. Those vendors are listed below. This issue was created with Xerox Ventura Publisher and output

using the AST TurboLaser and Hewlett Packard LaserJet. Interested in more information? Simply circle the appropriate numbers on the reader service card (next page) for FREE information directly from the vendor.

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DEST	<i>Scanner</i>	408-946-7100	296
Hewlett Packard	<i>Laser Printer</i>	800-367-4722	297
Lexissoft	<i>Desktop Publishing</i>	916-758-3630	298
MicroPro	<i>Word Processor</i>	415-472-4600	299
Microsoft	<i>Word Processor</i>	206-882-8080	308
PC Quick Art	<i>Clip Art</i>	800-523-1796	301
Quicksoft	<i>Word Processor</i>	206-282-0452	302
VS Software	<i>Fonts</i>	501-376-2083	304
Weaver Graphics	<i>Fonts</i>	215-884-9286	305
Xerox	<i>Desktop Publishing</i>	800-832-6979	309
Z-Soft	<i>PC Paintbrush</i>	404-980-1950	306



640 x 350 16 COLOR



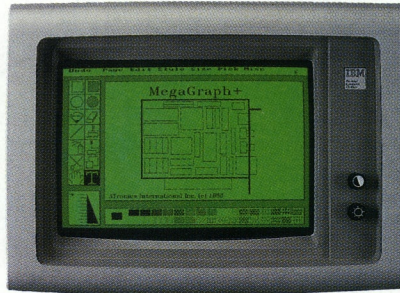
EGA PAINT



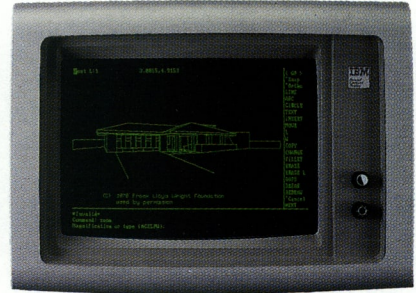
GEM



FLIGHT SIMULATOR



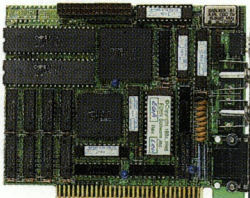
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Features

	ATronics MegaGraph+	Quadram EGA+	IBM EGA	STB EGA+
Half size, fits in any slot of PC/XT/AT	✓	✓		
EGA compatible	✓	✓	✓	✓
CGA compatible	✓	(1)	(2)	(2)
MDA compatible	✓	✓	✓	✓
Chip count	24	29	86	40
Hercules compatible 720 x 348 graphics	✓	✓		
No Software Patches required	✓		✓	✓
Boot from:				
– Flight Simulator	✓			
– Pin Ball	✓			
– Jet	✓			
Runs Lotus 1-2-3 version 1A:				
– Hercules mode	✓	(1)		
– Color mode	✓	(1)		
Two Video Jacks	✓	✓	✓	
Display Memory	256K	256K	64K	256K
Light Pen connector	✓	✓	✓	✓

(1) Needs software driver patches.

(2) Compatible only to the BIOS level, but not the hardware level. Will not be compatible with most games software.



ATronics International Inc.

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Mega Graph PLUS

"If you want to go into the model to change the definitions, such as global changes across many documents, or even on a multi-user system with many users, you simply put the model in a central place where it controls each user, and consistency is assured. The power is really amazing."

Syntactics, through working with the UNIX tradition, took their object-based word processor, which understands document components and their layouts, and in the background placed those definitions that generate input to troff. No, that isn't a special kind of truffle. Troff is the primary text processing program for output to a typesetter. Unlike your DOS programs, where there is but a single program for both producing onscreen formatting and text editing capabilities, UNIX requires that each step in editing and printing be carried out separately. This, naturally, does away with any sort of WYSIWYG (What You See Is What You Get) display. And, to top it off, troff is really complicated to use, and is not an environment a novice end-user should have to deal with.

Thankfully, Syntactics has handled this situation for users. For the troff they submit the text to for typesetting processing isn't ordinary troff, but a specially enhanced troff. The enhancements include both document features, such as kerning, and drivers for the Hewlett Packard family of printers. And, in the program's second release scheduled for early this year, PostScript, Imagen Impress, Imagen DDL, as well as CORA on Linotronics and PostScript Linotronic, AutoLogic ABS-5, and CompuGraphic, support will also be added. The CrystalTypeset back end also includes an advanced version of AT&T's ditroff.

For the person working at home, the support for, say, CompuGraphic, is probably not too important. But for the larger organization, this is a tremendous extra bonus. Not only can the director of publications go to film directly from the word processor, but the program is set up in such a way that he or she can use a laser printer as a draft engine for the phototypesetter.

"Let's say you have a Hewlett Packard and an ABS5 phototypesetter," began Morton. "Now, these machines

don't have access to the same font. But you can tell the LaserJet to use the nearest available font and use the nearest spacing for film so you can actually see what the page will look like when produced on the ABS5."

The President of the company continued. "We have a font end object word processor and a back end that's driving a typesetting engine. The architecture is open in such a way that you can hook in other filters between the two processors. Not only the standard UNIX ones, but things you've written yourself. So, for a shop that has programmer capability, and/or troff capability, people are able to add features to the product without waiting for us to do it for them. Again, that is a big organization feature rather than for the guy working at home."

We feel that capability is not only important to big organizations, but to people like VARs. We've hidden troff and have handled the difficulty between an easy front hand and a very difficult back end. The secretary need never see troff at all. But, the architecture is open for those who want it. I don't believe there's anything else like this.

If you classify the systems that are out there, there are the pagemaker types that allow you to take the text from a word processor and take something from other sources, bring these elements up on the screen, and then manipulate these elements by hand. Then there are the markup systems. These include the low end programs, like Microsoft Word and at a slightly higher level, XYWRITE. Then, even at an higher level, but more difficult to use, are programs like Documenter's Workbench and Microtek.

"All of those mentioned programs use markup by putting commands in the document that say 'now make this 12 points', or worse, 'now move the cursor here on the page'. Procedural markup is what I call it. It's a form of programming, really, as you are telling an engine what to do next. Crystal Publishing is a different kind of markup system. It's what we call descriptive markup.

Markup systems started a while ago with something called GENCODE that grew into IBM's GML (Generalized Markup Language). Now, there's standard generalized markup lan-

guage (SGML) that is designed for document interchange. This kind of markup flexibility allows you to have a set of definitions of document components and, in the document, all you need to indicate is that your text is a defined component. In effect, that's what Crystal Publisher accomplishes. However, the big difference rests in the fact that not only is the Syntactics package compatible with that kind of markup system and can move back and forth from it, but there's onscreen layout instead of just imbedding text.

From our observations of interactive demonstrations of both CrystalWriter and Crystal Typeset, when combined into the integrated Crystal Publishing System, the product provides a highly viable, high-end publishing environment for both UNIX and MSDOS users, especially when involved in multi-user operations. The word processor, in and of itself, is a well-constructed and highly usable tool as well. Due to the systems context-sensitive help, once the package has been installed on a LAN, it would be very usable by both the novice and the experienced user.

We hope to be able to manage an in-depth review of this program in the not-too-distant future. What we can advise is that if you need a corporate publishing system, you should do yourself and your company a favor by evaluating its performance on your own in-house system.

Syntactics Corp. is located at: 3333 Bowers Avenue, Suite 145 Santa Clara, CA - 95054 408/727-6400. §

The logo for Creative REDITS features a large, stylized letter 'C' on the left. To its right, the word 'Creative' is written in a serif font, and 'REDITS' is written in a bold, sans-serif font below it. A horizontal bar with a textured pattern extends from the right side of the 'C' across the text.

HEADLINE FONT
AGB Typeface (Weaver)
QUOTE FONT
Script (Conographic)
WORD PROCESSOR
PC-Write (Quicksoft)
IMAGES
PC Scan Plus (DEST)

Want more detail?
Turn to page 24.

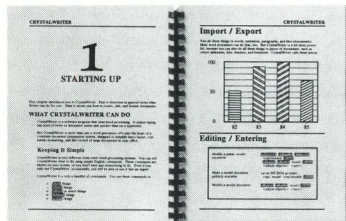
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Word-processing software with typesetting built in.

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Just think how easy that makes Desktop Publishing.



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You eliminate a costly, time-consuming task. You don't need to add complicated typesetting codes to your text,

or to nibble your way through text line-by-line, page-by-page.

You can send documents directly to a laser printer or typesetter, as easily as you once sent them to a dot-matrix printer.

In fact, one book publisher thought about it. Tried it.

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For unprecedented savings.

No More Page-by-Page Layout.

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AVOIDING DOCUMENT DISASTER

By Kenneth Lisec

I have always frowned at people who use computers to only accomplish something that has nothing to do with computers, i.e., desktop publishing. I mean, you are using a computer as a typewriter, right? There is no computing involved with desktop publishing. I mean, no number crunching, no creativity, no challenge just report the facts -- sort of similar to using a typewriter, except with unlimited rubout! **Boy, was I wrong!**

WHAT WAS THE NEED

My team, working on a large International Data Processing project, had completed the first phase of it -- fact gathering. These facts were turned into a Functional Requirements Specification (FRS) by each member of the team in a very hectic and disorganized manner. As with most large projects, the job of pulling all this data together fell through the cracks in the planning stage. There was no time allocated in the schedule to produce the formal document that was to be delivered to the client. We found ourselves completing the necessary work on time, but not being able to deliver the finished document on time.

The individuals involved with the creation of the data for the FRS used PC software that they were familiar with, or had used in the past (and were licensed to use). There were about 350 PC files of all different sorts of formats and file conventions.

WHAT WE HAD

Time was of the essence and there was not enough of it in the schedule to spend editing and joining the document and simply producing it. The document itself was over 500 pages long and we needed 50 copies of the finished product. We contacted several professional printing companies and each of them came up with nearly the same answer. "Give us about 4,000 pounds (\$6,000) and two weeks, and we will produce

your document, insert the tabs, collate the pages and produce the finished product."

The two weeks quoted was of concern to us. From past experience, two weeks can grow to be as much as eight weeks. The printer has to create "paper plates" for each of the 500 pages, run them through the presses (50 pages at a time) and then collate the pages together. This process under extreme time deadlines often leads to mistakes by the printer. Also, during the waiting period when the printer is managing his work, the document itself tends to change due to additional inputs by the creative staff. These changes the printer cannot fix, as his print cycle is already underway. Plus, we also had to maintain the table of contents and page numbers manually. There had to be a better way!

WHAT WE HAD - PART II

The input for this document came from several pieces of software. Micropro Wordstar 2000 was used for some of the text. PC-OUTLINE was used for other files. IBM's Professional Editor and DisplayWriter III were also used. The graphics and non-text sections accounted for 85 of the 300 PC files that we were trying to connect together as one document. Files were also output from Project Manager's Workbench and the Yourdon Analyst Toolkit. There were also graphs generated from Lotus 123 business graphing system. The total number of PCDOS files amounted to a total of 20 million bytes when expanded to ASCII files. The graphics alone accounted for 1 million bytes.

CHANGING UNDER OUR FEET

To further complicate these factors, we were presenting the document to the Client in pieces, and the document was changing under our noses almost daily. These changes were not of any magnitude, but usually chan-

ges in the manner in which information was presented. We had to institute a mechanism that would produce the document in it's MOST CURRENT form, and still allow us to amend the material and forward the changes to the people who held all 50 copies of the document. There seemed to be no manner in which this could be accomplished by anyone, especially when considering the variety of word processing files that were involved.

WHAT WE NEEDED

Our concern was not for the actual printing of the document, but the gathering of all document pieces in a form that was both manageable and allowed us to have local control over the document.

We examined several pieces of software in the desktop publishing area. None of them appeared to be able to handle all of our word processing text formats and graphics files. We finally decided to convert all of the word processing files to pure ASCII. This presented us with several problems. First, we lost all of the printer control characters in the files for such enhancements as underline, bold, double print and compress. Secondly, the Wordstar 2000 conversion to ASCII option leaves control characters for tabs, etc., in the output file, and these files then need further editing. It took us about two days to recover from this decision and get the files back into shape.

The decision had been made to "standardize" the text so that a product provided by the Yourdon Analyst Toolkit called "Compose" could be used to manage our mammoth document.

WHAT IS COMPOSE?

Compose is similar to the old second generation software used on mainframes such as IBM's Script VS or GEISCO's PUB. You establish a "driver" file and insert command strings in the driver file and the text files to control how the document is

printed. For example, to include a file at a particular point in the document, you insert a line in the driver file that contains .IN FILENAME, where FILENAME is the name of the file to be included. Also, commands can be inserted in the text to control how things are printed (underline, bold, etc.). The text files must be in ASCII and it appeared that Compose could handle most of our graphic files, except for our Lotus Business Graphics.

READY TO GO

We edited all the ASCII files and inserted all the Compose Commands and built the command file. We were ready to go. We owned an Epson FX105 printer and were concerned with the print quality this device produced. Additionally, this printer is slow and requires constant watching and ribbon changes. The printer also could only print one copy, meaning that we would have to photocopy the remaining 49 copies.

We tried to find a printer that would be able to print all 50 copies. This would eliminate the process of collating after copying, and also produce original quality copy on sheets of paper (with holes for binding) rather than fan folded computer paper which has to be burst and drilled. Obviously, a dot matrix printer would not manage the job correctly, and other printers could not print the necessary graphics. We looked at laser printers. The most popular laser here in the United Kingdom is the HP LaserJet Plus.

LASER TESTING

Our office had no expertise with Lasers and IBM computers. We have a Macintosh with a laser printer, but this setup was of no help to us in the IBM world. We called our supplier and specified that we wanted a laser that could emulate an Epson with full graphics support. An HP LaserJet Plus arrived the very next day and we tried it out. Two operations did not function. First, the LaserJet font provided was not able to reduce the size of type printed. Some of the text pages ran over 80 columns and we had inserted the commands necessary to change

from 10 characters per inch to 12 and 18 characters per inch. The LaserJet ignored these commands. And then came a real problem. The graphic plots produced by the Yourdon software required four passes before printing. This is accomplished on the Epson printer with control sequences that change fonts when necessary, and all four fonts are printed together. The HP LaserJet either did not have enough memory to do this, or was not able to recognize the font load commands. Each plot created 16 pages of garbage on the LaserJet. We gave up and returned the printer to our supplier. Our time was up and we had to print the document.

THREE DAYS LATER

All of the desks and the floor was covered in paper. We ran into several hardware problems, including the burning out of our first Epson printer, plus two failures of our Xerox printer. But, somehow we managed to print all of the pages and began assembling the document, page-by-page.

WHAT WE LEARNED

Our first mistake was to allow each member of the team to choose their own word processing software. This function must be centralized around one piece of software or converted to a standard work processing input. A centralized function to control the creation of the document is suggested. A procedure should be set up to pass the topics to this centralized function as they are completed, and when changes must be made, a checkout system should be put in place to track and control the most current version of the topic.

The next mistake was to wait until the end of the project to determine the hardware and software that would be used to print the document. Plans must be in place so that during the creation of the document text, standards can be set and the proper control characters incorporated in the document as it is created.

The third mistake was to ignore the time and budget requirements neces-

sary to create the document. The real shame of this scenario is that everyone involved did their job in a professional and timely fashion and because of lack of planning in the creation of the physical document, the actual product delivery was seen as being late. The internal havoc created by this process was demoralizing to the staff and generated a feeling that we did not know what we were doing.

THE NEXT TIME

We have cleaned up our act in the three areas delineated above and are moving toward a solution that is "a Total Answer". We are in the process of evaluating and purchasing a new hardware and software package called "The Apricot Desktop Publishing System". Only time will tell if this system handles all of our needs and makes the job of publishing our work any less painful. Experience is, after all, the best teacher. §



HEADLINE FONT
Uncial (Conographic)
SUBHEAD FONT
Helv Italics (Hewlett-Packard)
Zapf Humanist 601 (Bitstream)
BODY TEXT FONT
Tms Rmn (Hewlett-Packard)
WORD PROCESSOR
MS-Word (Microsoft)

Want more detail?
Turn to page 24.

What you *really* want is typesetting, right?

Most people interested in desktop publishing are either moving up from monospaced word processing or moving down from commercial typography. In either case they seek to achieve typeset quality without the cost or hassle inherent with traditional typesetters. Isn't that what you *really* want?

Introducing DeskSet, a desktop publishing package that includes all the capability of a traditional typesetting system yet works with laser printers. It's as easy to use as a word processor and incorporates graphics with your text. And your text will be composed beautifully, with a much more professional appearance and higher readability than compared with other desktop publishing software. These are some of the composition features of DeskSet.

Automatic Hyphenation

An extremely accurate program with exception dictionaries. Lets you control the number of successive hyphenated lines, the number of characters in a word before considering hyphenation and entry of words you don't want broken (brand names, company name, etc.)

Automatic Kerning

Adjusts the white space between specific characters. Provide unique values for every font with up to 256 defined pairs per font.

Automatic Letterspace Control

During composition finite intercharacter spacing adjustments are made to create tight, evenly spaced lines. This eliminates wide word spaces and rivers of white space running through your copy.

Automatic Character Compensation

As type size increases, so does adjoining white space. Character compensation uniformly removes excess space. Choose from three levels; normal, book set, or ad set.

All of these features work together to produce high quality composition. In fact, the composition program was modeled after the most popular commercial typesetting system. Instead of dedicated hardware, DeskSet runs in any IBM PC or 100% compatible.

Output

DeskSet includes the PostScript page description language for output to the Apple LaserWriter and other PostScript-equipped laser printers. You can also create a Compu-graphic MCS-compatible diskette (optional) right on your PC for output on higher resolution Compugraphic typesetting equipment.

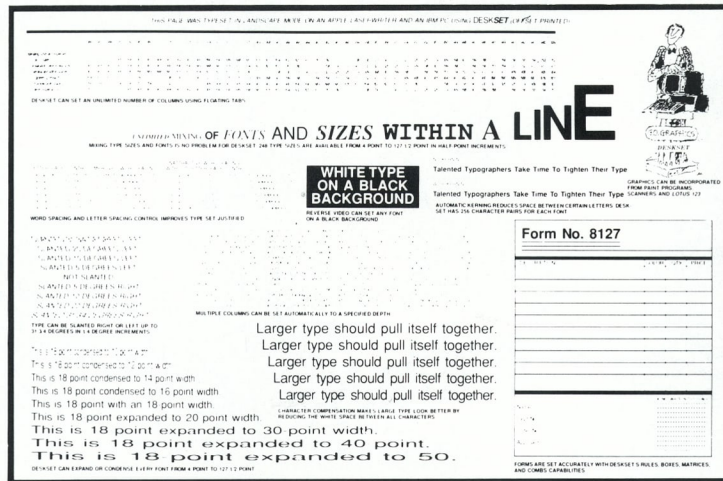
Conversion

Your MS-DOS word processor is compatible to DeskSet. Import any ASCII file and DeskSet's powerful translation program will prepare it for batch composition. Translation

tables are available for the most popular word processing programs, including: Wordstar, Wordstar 2000, Multimate, Word Perfect, Volkswriter, DisplayWrite, and Microsoft Word.

WYSIWYG

DeskSet's WYSIWYG preview displays text and graphics in position. Nine scalable fonts are available to provide a screen representation of your final output. And, DeskSet works in a variety of display environments:



Hercules
Wyse 700
EGA

CGA
Micro Display Systems

Graphics

DeskSet automatically positions graphics anywhere on the page. Graphics files compatible to DeskSet are:

Lotus 1-2-3	Microtek
Datcopy	Dr. Halo II
Dest	PC Paintbrush

DeskSet is a professional desktop publishing program for people concerned with the appearance of their work. For the location of a dealer near you, phone (800) 237-5588.

And here's the best part. It's available right now!

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CM-5-86

Editor's FOLIO

By Hartley Lesser

PLAYING CATCH-UP

Software programmers should, immediately, be having a field day in the D-3 environs. For, although the number of hardware devices available for desktop publishing have increased dramatically over the past few months, their ability to interface with current, popular software programs is still somewhat limited.

This means that the time has come to consider what makes a successful product. Granted, the ability to run out and purchase a digital scanner, a laser printer, and associated periphery, is something many thought would never occur in the PC productivity arena. Now that the hardware is available, wouldn't it be nice to use these fantastic tools with your word processor, your graphics program, your D-3 program?

Unfortunately, more is the case currently that you cannot merge these hardware goodies with your software. The time to play catch up is upon the PC desktop publishing community. Software drivers are sorely needed for most of these products, drivers that will interface each offering with the productivity programs all are using. Not everyone can afford to purchase differing software programs simply to enable connectivity to a particular scanner or laser printer.

Let's look at laser printers, for example. Many vendors of such printers say that they would like to enhance their products to afford compatibility with all page/document description languages, but cannot afford the development time and expense for writing drivers for languages that may, or may not, become

standards. I say, you can't afford not to write these drivers! After all, the more variety you offer the user with your printer, the more buyers there will be for that particular product. It matters not if PostScript or DDL or Interpress becomes the dominant page/document description language. Each one has their own particular merits, and by enabling the user to determine which language becomes dominant, you assure yourself a piece of the action by allowing your device to work with all of the offered languages. And, you are also assured that your device WILL operate with the one or two dominant languages, when such are determined in the future.

This also holds true for scanners. Many operate only within a specific environment. Certainly, several are now taking advantage of Microsoft Windows as the operating environment, but try incorporating some of those image files into a word processor or D-3 program that doesn't support Windows. Forget it! The ability to integrate the software with the hardware is extremely important to any vendor's long-term viability in D-3. All should take note of the example as set by the likes of Ventura Publisher, Spellbinder, and Microsoft Word. They support MOST lasers, most dot matrix printers, most word processed document files, and most graphic files. To that end, these programs are successful, and will remain so.

FOR THE RETAILER

Most corporate users are requesting starter packages that enable the user to begin work with the hardware and software right away, without worrying about buying the correct cables, the appropriate DOS, the right graphics board, etc. Bundle your opportunities together, Mr. Retailer, and you'll find businesspeople are more than anxious to let you supply their needs. And for heaven's sake, train your store personnel. Whether you know it or not, when folk read in the yellow pages that your store is

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PC
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Mar 1987



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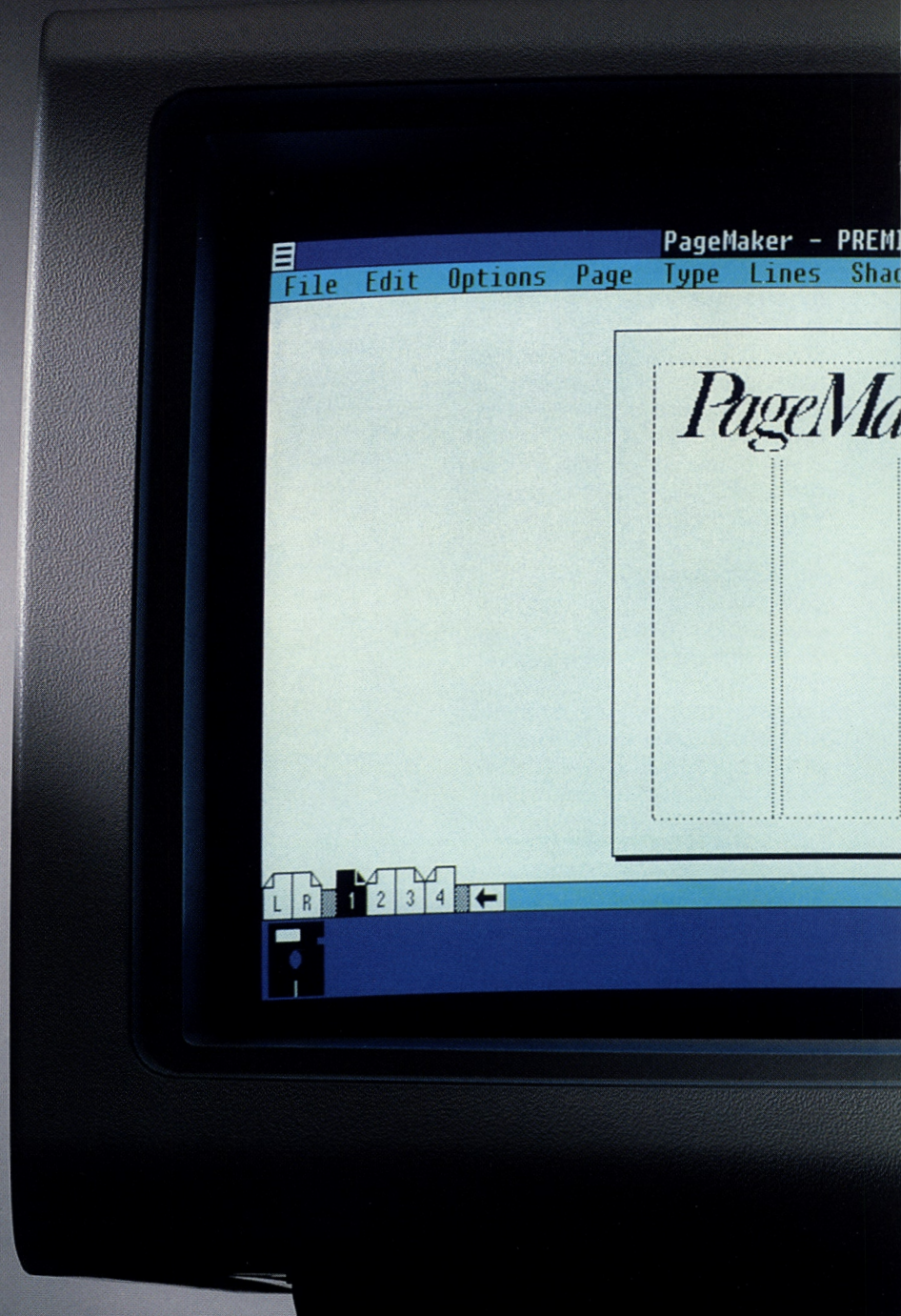
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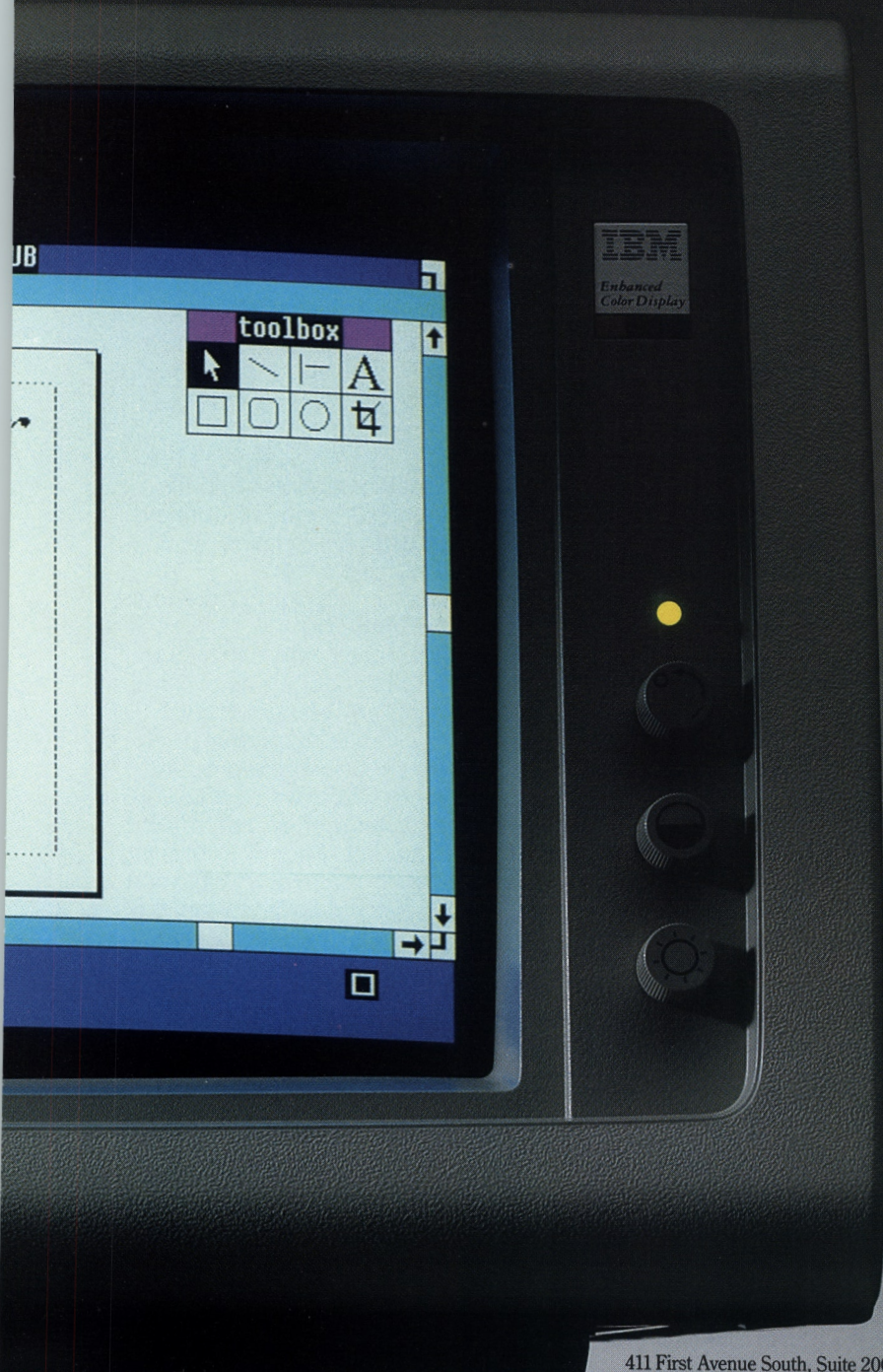
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an authorized dealer for this system or that system, they believe that a certain amount of expertise in dealing with that system is inherent with such a retail outlet. We are extremely tired of calling stores, attempting to obtain retail pricing on products that have been released, only to be told that the program hasn't been released, that they have no idea what laser printer is compatible with a certain program, and aren't sure as to their policy regarding returns. Nothing can deter a sale more than sales ignorance. If you wish to proclaim yourself an expert, or at least knowledgeable, in the sales arena, know what the heck you're selling!

FOR VENDORS

A great deal of work needs to be done in the areas of technical support for your product lines. First, why should the owner of one of your products have to make a long distance call just to find out that a problem with a program is not of his/her doing? And why should the owner of a program have to be put on hold after dialing long distance? And why should repetitive calls be necessary? And, lastly, why are promised return calls never returned? Sound exaggerated?

It isn't... we called a major vendor located west of the Mississippi regarding the latest release of their productivity package that simply would not install on an offshore XT-clone. The retail price of the package nears \$500. Several long-distance calls accomplished the following:

1) Male technician listened attentively for four minutes to the installation difficulty, advised on a specific action, stating such would fix the problem. When asked for his name, should his advise not adjudicate the problem and require a second call, the phone was hung up in my ear.

2) Suggested fix attempted, fix failed. Called again, put on hold listening to light classical music (which is very enjoyable) for over

five minutes before a female technician finally answered the phone. Problem re-explained to this technician, which required another four minutes of narration that had already been presented to the first technician. Her first response that I was in error and such could not occur. A quick explanation as to my ability to run any setup program resulted in her taking a telephone number and promising a return call.

3) Next day, waited most of the morning and into early afternoon... still no return call from the vendor's technical support people, as promised... dialed technical service again, four and one-half minute wait, male technician. Once again, re-explained the problem (another four minutes) and also mentioned the attempted fix that had been suggested the day before by one of his compatriots. I was told that the suggested fix had been incorrect. I was then informed that my clone's ROM BIOS was obviously the root of the program's problem and that I should take the program disk to local my retailer and see if the word processor would run on another machine. That certainly made sense, so I asked for the technician's name, which was received. I also explained that an earlier version of the problem product had run perfectly on my machine using an older version of DOS.

4) Drove to a computer store four miles from the office, tested the software, which operated incorrectly.

5) Called Technical Support once again after another program test failed on my machine and requested another copy. This technician indicated such was not in their jurisdiction and gave me another non toll-free number to call for a replacement disk, as this was a review copy and could not be returned to a local, authorized dealer.

6) Dialed the given telephone number and managed to get through the main switchboard to the responsible individual's office on two occasions, and waited three minutes to answer the extension. However, the phone was never

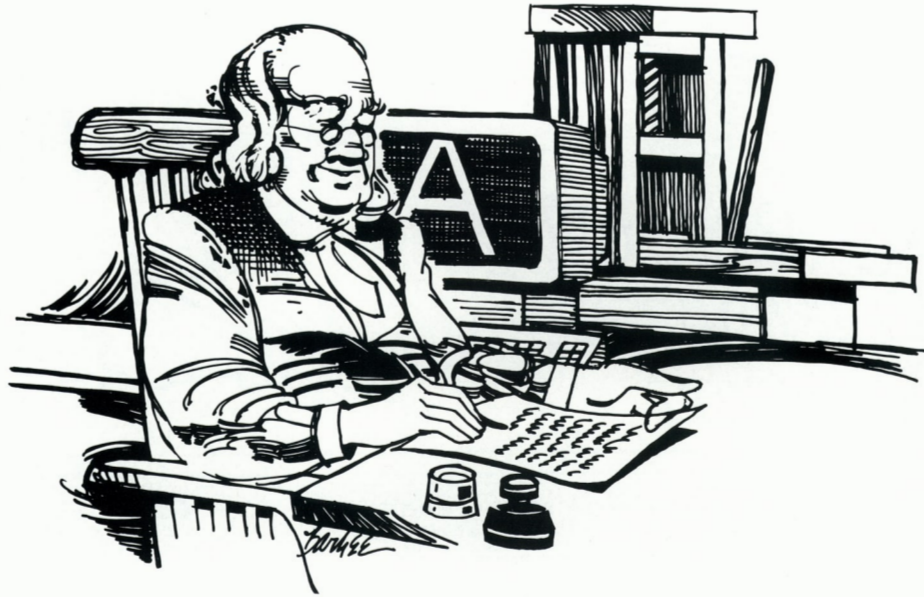
answered. Unfortunately, my telephone connect charges continued to race like Churchill Downs, as I had managed to communicate through the first company operator. There was no forwarding device to redirect my call to some form of a message center.

7) Finally, re-dialed the company again and requested the main operator to connect me with a secretary or other message center for the party with whom I was supposed to speak regarding a replacement copy. Managed, without losing my temper, to yet again explain the situation to a very pleasant young lady who politely recorded my name, telephone number and nature of the problem for the person who was to make the program adjustment, thanked me for my time, and wished me a pleasant day.

8) Am still awaiting a call from the company to explain how the program should be returned and a working copy received. Needless to say, this program will be extremely late in being reviewed by PC Publishing, if it ever does see print. The product frustration had been extended over a period of four days. And the matter still remains unsolved! This is pure, unadulterated garbage. Why should the CONSUMER be inconvenienced? Why can't your support, Mr. Vendor, be as professional as the claim of your products? Our feeling is that if you can't viably support your product with politeness and with credibility, then the package should be yanked from the market. And PC Publishing will indicate in our reviews what sort of support you can expect from the packages we examine.

'Nough said, I guess. Should you know of companies whose support is excellent, we'd like to give them credit for their efforts in this regard. Please write, either with pen or modem, to our editorial offices or upload a letter via MCI Mail to HLESSER, regarding your experiences with technical support. We're most anxious to hear your tales of woe, or hurrahs! §

The Ultimate Impression



AST
RICOH
HP
DATASOUTH
QMS

Created by Straightforward™

Compugraphic, ITC, Linotype. Desktop publishers and word processors that interface with download fonts.

Friends, as indolent as I am, and averse to writing, the impression left by these Straightforward fonts obliges me to take up my pen. I end up examining them over and over again. I am charmed with their fonts and the description of font management, font editing, printer interfacing, signature and logo services. We should all draw all the good we can from our laser printers. In my opinion, we might all draw more good than we do, and suffer less hardship, if we would take care not to give too little consideration for fonts. Straightforward has combined their expertise and proprietary software with the world's leading typographers and laser printer manufacturers, I am pleased to report, to reach a pinnacle heretofore unobtainable.

Imagine, each font is still hand crafted. Each high quality bit map is created to match the laser printer supported. Quality is of the utmost importance. For to me it seems, that most of the unhappy people we meet with, are become so by neglect of that caution. Alas, this outline technology, of which I have witnessed, can not maintain a high quality over a range of point sizes. In short, I conceive that great part of the miseries of mankind are brought upon them by the false estimates they have made of the value of things.

Remember, The Ultimate Impression remains in the eyes of the beholder, through hand crafted, trademarked, bit mapped fonts from Straightforward.

Adieu, my dear friends, and believe me ever yours very sincerely,

B. F.

PS

Straightforward is the only source for laser fonts from all three of the world's leading typographers. Twenty-three font families currently available.

ZManager

Select and download fonts, modify/create printer drivers via a menu.

ZManager Plus – Make 6 fonts for the price of one.

- Creates new fonts from existing ones.
- Portrait to Landscape.
- Regular to Bold.
- Proportional to Mono spacing.
- Normal to Condensed Spacing.
- Normal Presentation to Reverse (White on Black).

ZEditor

Over 100 commands.

- It is like having the source code to your software.
- Originally developed for printer manufacturers.
- EGA, CGA, Monochrome, Hercules compatible.
- Microsoft Mouse compatible.

ZPrinter

Setup and control your laser printer from your PC.

Signatures and Logos

- Very competitive pricing.
- Delivered as downloadable font.

Special Fonts

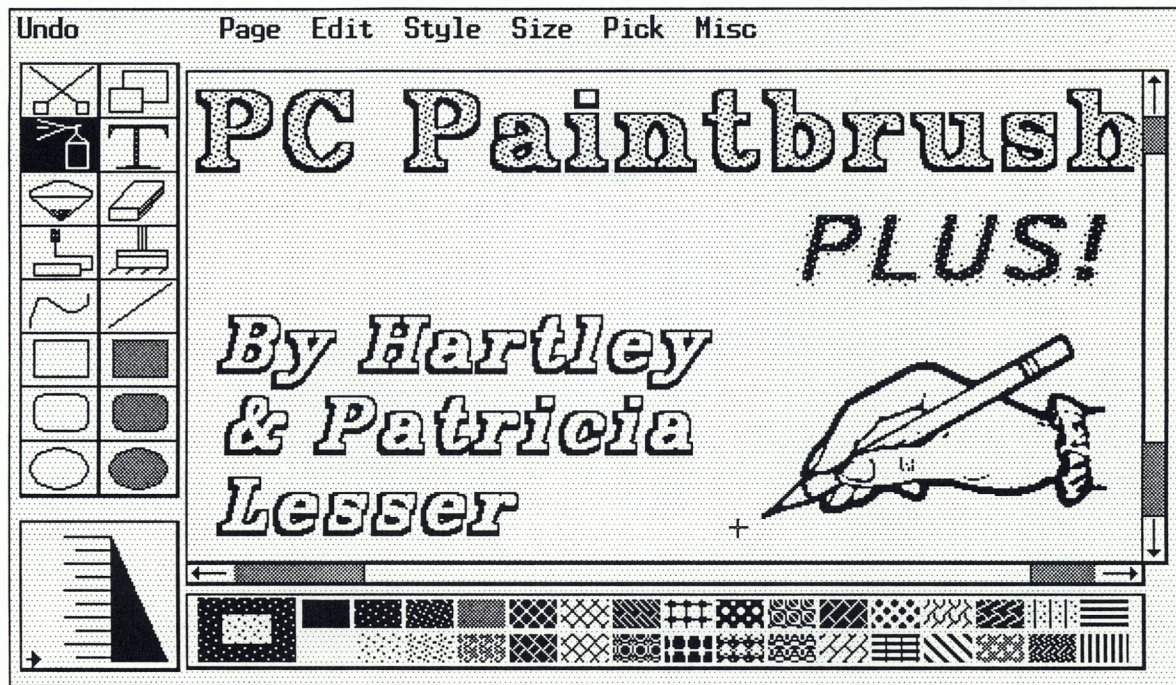
HP equivalent of MATH and TAX cartridges. Special character sets available on special order.

System Requirements

IBM PC or compatible, 128K Memory, DOS 2.1 or higher

STRAIGHTFORWARD

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A Designer's Delight

From: ZSoft Corporation 1950 Spectrum Circle Suite A-495 Marietta, GA 3067 404/980-1950

Price: \$149

Equipment reviewed on: ITT XTRA/286 ATW, 640 K, 30 MB drive, one floppy drive ITT Enhanced Graphics Monitor IBM XT offshore clone, 640 K, 2 floppy drives, 20 MB drive NEC MultiSync monitor Datacopy JetReader scanner

Program requirements: 320 K memory - more memory required for high resolution displays -- one disk drive - a graphics display - DOS 2.X or greater - a mouse, joystick or digitizer.

Your involvement in Document, Design, and Delivery (D-3) can encompass a good deal more construction than only text entry or word assemblage. The incorporation of graphics into your work is, at times, a critical need, as the venerable saying "a picture is worth a thousand words" continues to hold true for most publishing work. Even the driest of annual reports can be made interesting with the spark of graphics, be such a

detailed Lotus 1-2-3 graph, a scanned image of a photo depicting the CEO and COO shaking hands, or line art created by freehand or imported from a clip art package.

To include such a variety of elements within a document has, in the past, necessitated the use of several different software programs -- one to draw the line art, one to accept and then manipulate a scanned image, one to port a specific graph in from your worksheet. Fortunately for all involved in D-3 productivity, ZSoft Corporation has released their PC Paintbrush Plus, a package that can manage your entire graphics needs easily and effectively.

PC Paintbrush has been utilized by IBM micros and compatibles for several years. This program was one of the first to introduce malleable graphics creation to PC/MSDOS environments and, as such, gained great popularity as THE graphics program standard. The company has now gone even further to ensure their standing as one of the resident MUSTS for desktop publishing.

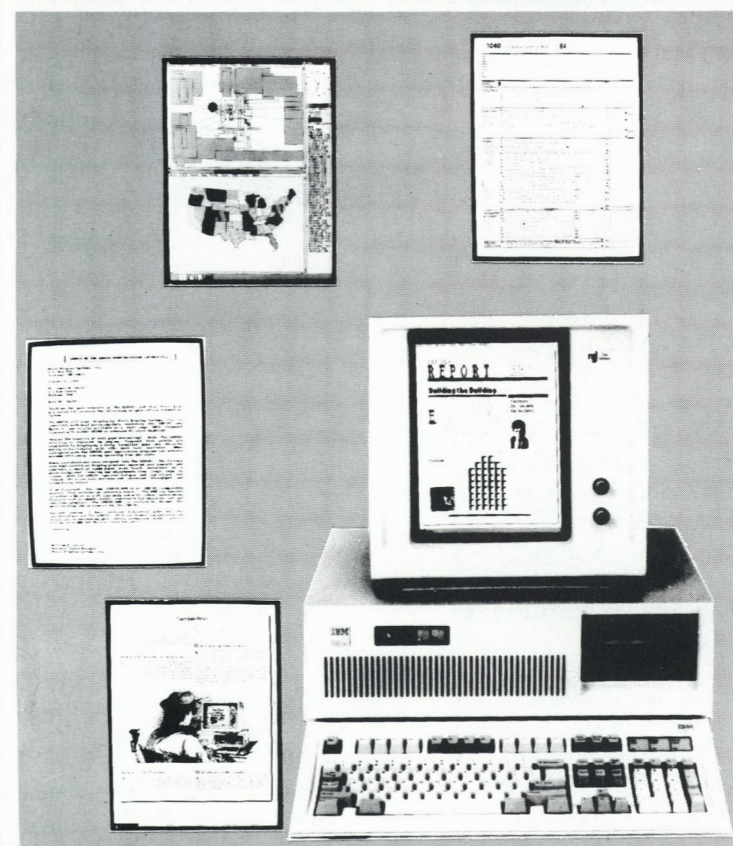
First, the program continues to be a delight to use. One of the most important factors retained by ZSoft in this release is the fact that you don't

have to have an 80286- or 80386-based machine to effectively use the software. PC Paintbrush Plus jogs most appropriately on an XT running at the lower clock speed. Accordingly, the program sprints when run on an AT or compatible, such as the ITT XTRA/286 ATW. Installation is a simple matter of running the PCINSTALL program, which copies the program onto floppies or a hard disk configured system. Upon completion, you then initiate the SETUPPB program, which queries you as to various peripheral devices, your I/O device, and printer selection, and informs PC Paintbrush Plus as to your selections.

For PC Paintbrush users, this latest release is as familiar as your favorite coffee mug. The editing screen contains the graphics tools on the left side of the screen, the color palette at the screen's base, menus poised appropriately above the drawing screen, and the scrollbars to help you move to differing areas of your image. By using a mouse (the recommended method, but cursor control keys are also supported), you can still move your cursor to a desired menu selection, click once, and the commands within that menu selection are "pulled down" from the menu name. By simply clicking on the desired element, such becomes activated.



GENIUS HARDWARE

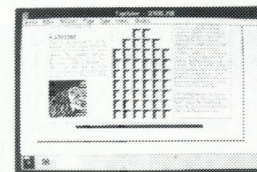


GENIUS—FEATURES



THE LONG

NOT THE SHORT OF
DESKTOP PUBLISHING.



DESKTOP PUBLISHING

Aldus Pagemaker.
Xerox Desktop Publishing Series: Ventura
Publisher Edition.
Media Cybernetics HALO DPE.
Bestinfo Super Page.
Megahaus First Impression.
G. O. Graphics DESKSET.

WORD PROCESSING

Palantir, Wordstar, Wordperfect,
Word, Samna and many more.

GRAPHICS

Microsoft Windows, Digital Research
GEM and Autodesk AutoCAD.



DATACOPY—HARDWARE



Datacopy's Model 730 Word Image Processing System™ combines high resolution (200/300 dots per inch) with higher speed (15/24 seconds) to capture and manipulate images for personal publishing, optical character recognition and data base management applications.



DATACOPY FEATURES

SCANNERS/ INTERFACES

WIPS Kit
PC Image Kit
PC Paintbrush + Kit
OCR + Kit
MAC Image Kit

FUNCTION

Merge Text & Graphics
Aldus/Windows Images
Ventura Images
Trainable Conversion Text
MacIntosh Interface

SOFTWARE OPTIONS

WIPS
WIPS Editor
WIPS JR
PC Image
PC Paintbrush +
OCR +

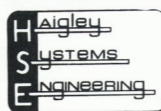
VIDEO ENVIRONMENTS

HGC Environment
HGC Environment
HGC Environment
Windows Environment
HGC, CGA, EGA
Environment
HGC, CGA, EGA
Environment

ADDITIONAL INTERFACES

WIPS Interface
PC Image Interface
PC Paintbrush + I/F
OCR + Interface
GPII
MAC Image Interface

GIVE YOUR DESKTOP PUBLISHING SYSTEM A FIGHTING CHANCE!



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Additionally, the Frieze function remains as one of the best screen capture programs ever devised for IBM micros and their compatibles. This is a RAM-resident program that is automatically booted and loaded into your computer's memory when PC Paintbrush Plus is initiated. Once in memory, this handy little utility will capture any screen from any other program with the simple dual-key activation of the Shift and PrtSc keys. The screen image may then be saved to your storage media as a PC Paintbrush file for later manipulation with PC Paintbrush Plus, should you desire. While within an activated Frieze, you can also print portrait-style printouts to any device that you installed for support within PC Paintbrush Plus; you can influence the size of the captured screen, by specifying the values for the image's height and width as well as the margins; you can establish a Zoom factor; and with the Viewport command you can select a portion of the captured screen to be captured as a separate image and saved.

As all of the major D-3 packages, such as Ventura Publisher, can incorporate PC Paintbrush Plus .PCX files, this program is truly an invaluable aid to all desktop publishing work. PC Paintbrush Plus will also import Lotus .PIC files, and .PCC files (created by saving a Frieze image or for images that you've cut or copied with the scissors or pick tool in the program itself). PC Paintbrush Plus is fully compatible with PC Presentation.

One of the greatest enhancements to PC Paintbrush Plus is the program's support for image scanners, which is a tremendous boost for D-3 work. The program fully supports the following scanners: Canon IX-12 with either the Canon Interface Card or the JLASERPLUSs card, both the Datacopy 220 (JetReader sheetfeed type) and Datacopy 230 (Model 730 flatbed type), the DEST PC Scan and the Princeton Graphics scanner. At PC Publishing, we utilize both the Datacopy Jet Reader and the DEST PC Scan units.

To utilize the drivers supplied by PC Paintbrush Plus (the DEST scanner

driver is included with that company's DEST IMAGE PAC software), all you have to do is to make certain that your CONFIG.SYS file contains the correct device name, and that the root directory of your system possesses the device driver itself. To install the Datacopy Jet Reader, for example, all you have to do is add the following line to your CONFIG.SYS file using your favorite word processor or the EDLIN program:

```
device = DATAC220.SYS
```

Next, you would COPY the DATAC220.SYS file from the PC Paintbrush Plus disk to the root directory of your system. For those with hard disk drives, the root directory is usually C:\. Now, when you boot your computer, the driver for the scanner is automatically installed for use by PC Paintbrush Plus.

We personally use the Datacopy JetReader for most of our scanning work, and PC Paintbrush Plus is so easy to use for this task. By "pulling down" the Page menu in PC Paintbrush Plus, several options are offered, one of them being Scan. You access Scan by selecting that option and an options dialog box appears onscreen. As scanners offer a variety of different options, the options listed in the onscreen dialog box may also be different for various units. For the JetReader, we can select an image that is Normal (black on white) in appearance, or Reverse (white on black). You can also specify whether you wish all of the following measurements that apply to the scanned image options to be in inches, centimeters or pels (picture elements). A Bright option allows you to vary the scan. With the JetReader, there are settings of 1, 2 and 3, with the number 1 setting producing the darker image. A Contrast setting cannot be changed from its Auto mode with this Datacopy scanner model.

The Scan Mode itself may be B & W or Dither. The latter mode, when selected, allows you to choose from either the Bayer or Spiral algorithms for scanning in your image. Dithering is the emulation of gray-scale, with the scanner halftoning images -- black and white pixels are combined into patterns that look like gray shades -- and is the best selection when scanning in

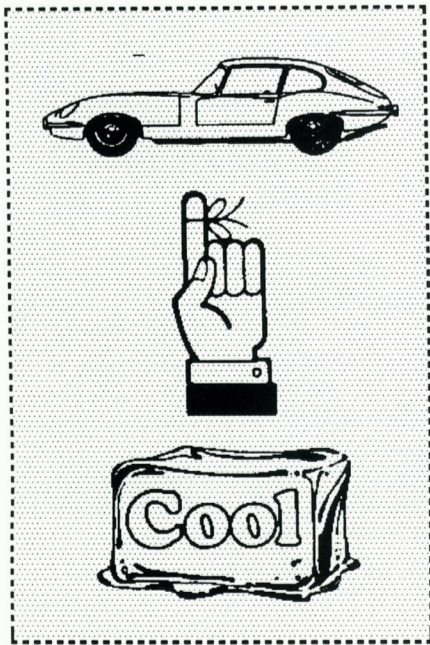


photographs. The Black and White setting is best suited for scanning line art and text.

You can then select from among four different resolutions: 300 by 300, 240 by 240, 200 by 200, and 150 by 150 dots per inch. As most laser printers support 300 by 300 dpi, this is the setting that produces the highest resolution. The 200 dpi setting is most suited for FAX transmissions. Once these settings are decided, a second page is presented, one that allows you to define the size of the image by either inputting sizes in four margin selection boxes, or by moving the cursor inside a rectangular box on the left side of the screen. By depressing the left or right cursor keys, you can visually change the size of the box, thereby defining the margins of the image to be scanned. Finally, the Page Length is set (with the JetReader, that's Letter or Legal size), and when OK is clicked on, PC Paintbrush Plus requests that you insert the document into the scanner for reading.

After the image has been scanned, PC Paintbrush Plus proves its worth as an editing tool for the scanned image. The graphic appears on screen and all of the program's graphics tools can be used to manipulate the image as you see fit. To obtain an overall view of the scanned image, you can select Zoom-out from the Misc menu, even if your image is far larger than PC Paintbrush Plus' editing screen. This

with PC Paintbrush Plus!



is a most helpful feature, as it allows you to define those areas of the scanned image that contain no information, such as extra white areas that usually accompany a dithered photo that simply take up additional storage space in the image itself. This extra white space can be eliminated by using the Pick or Scissors tools and then dumping the unwanted pixels with the Cut function.

Two areas that require caution involve computer memory and storage space. First of all, in order to utilize the Scan function, the only program that can be resident in memory is the program's own Frieze function, especially when using an EGA board. When we attempted to utilize PC Paintbrush Plus' Scan option with a Cordata LP300X laser printer, we immediately ran into problems. The Cordata requires that a certain amount of memory (in our case, 100 K, although Cordata recommends a minimum of 128 K) be dedicated for font storage. This memory is automatically reserved for the printer's fonts when the computer is booted, via the AUTOEXEC.BAT file. The only way we could utilize the Scan Option with the Cordata laser printer was to uninstall the printer when the system was booted, scan the images needed, and then exit the system, rebooting to initialize the laser printer. So, even though PC Paintbrush Plus

does support the Cordata laser printer with a driver, if you're going to scan images, you cannot print directly to the Cordata with the program due to memory constrictions when the printer driver is initialized.

Secondly, disk storage space is crucial when working with PC Paintbrush Plus .PCX files. For example, we scanned in a 5 by 7-inch black and white product photo using the JetReader. The image required 521,786 bytes for storage. A larger product photo measuring 7-7/8 horizontal inches by 10 vertical inches required nearly one full megabyte for storage, capturing 947,880 bytes of our image subdirectory space. As you can see, to scan in several images sequentially will require a great deal of free space on your hard disk. We recommend not even bothering to scan in images unless you've got at least 1.5 MB of storage space on your hard disk. If you're using an AT or compatible with 1.2 MB floppy drives, you'll need several blanks to manage the image storage. Folk with standard 360 K floppy drives can forget about utilizing their system for storing images scanned using PC Paintbrush Plus. However, we are only talking storage here, not immediate printing of images.

PC Paintbrush Plus has expanded their support in several other arenas, as well. For instance, the program now includes drivers for 33 different I/O devices, from mice to digitizing tablets. As far as display adapters are concerned, the program now has drivers for 74 different types, covering MDA, HGC, CGA, EGA, PGC and more! However, when using a scanner, an EGA board is definitely recommended, as we noted that the scanner dialog screens didn't display properly when a CGA board was being used. And the printer support is astounding, now covering 52 different printers ranging from dot matrix to laser.

The .PCX files created by PC Paintbrush Plus are fully compatible with the likes of Ventura Publisher, which imports the image into its environment and translates the file to a more manageable GEM .IMG file. Other programs that plan to support the program include Aldus' PageMaker for the PC, PageWriter

from The 'Puter Group, and dozens more of D-3 programs. You can now also establish default drives and directories for the program via a PBRUSH.CNF file that is edited in the same manner a CONFIG.SYS or AUTOEXEC.BAT file are written. This file contains lines that tell the program where to look for specific files, such as a PCX subdirectory for picture files, a FNT subdirectory for your font files, etc. Also customizable is the onscreen display, which means you can produce dialog boxes or onscreen menus to aid novice users, or convert them for foreign language use. Finally, the new version of PC Paintbrush Plus can be run on a network, as long as the overlay and other executable and font files are sharable. You can even have different hardware configurations running at the same time, through use of different batch files.

PC Paintbrush Plus is one of those mandatory programs for anyone involved in D-3 productivity. Easy-to-use, powerful, and extremely flexible, PC Paintbrush Plus really does offer you a design studio in your PC. At PC Publishing magazine, we couldn't be without this graphics program. Now, with the additional support offered by ZSoft in PC Paintbrush Plus, we find our productivity has more than doubled, as this program can now manage several publishing activities at a time. PC Paintbrush Plus receives a Highly Recommended rating from this magazine. §

Creative
REDITS

SUBHEAD FONT
Zapf Humanist 601 (Bitstream)
BODY TEXT FONT
Tms Rmn (Hewlett Packard)
WORD PROCESSOR
MultiMate (Multimate)
CLIP ART
Volume One (PC Quick-Art)
UTILITIES
PC Paintbrush Plus (ZSoft)

Want more detail?
Turn to page 24.

The DTP Generation Gap

..... By Randy J. Spurrier

Future shock is a result of a time phenomenon, a product of the greatly accelerated rate of change in society... The acceleration of change, however, radically alters the balance between novel and familiar situation. Rising rates of change thus compel us not merely to cope with a faster flow, but with more and more situations to which previous personal experience does not apply.

Desktop publishing for the IBM PC world has arrived overnight. The market is flooded with laser printers and desktop publishing software. Tremendous power is now at the fingertips of PC owners. However, the high powered printers which have given birth to desktop publishing have also left a heap of compatibility problems in their wake. The quantum leap from the functional printers of the recent past, to the powerful workhorses of desktop publishing, has left much of the existing base of applications software unable to cope. A seasoned generation of software, never designed for the fantastic printing capabilities now possible, is faced with one radical improvement after another. These rapid changes in printer capabilities have created a generation gap whose end is not in sight.

We, at Insight Development, have no regrets for the changes wrought by desktop publishing technology. Far from it. We view desktop publishing not only as a time and money saving development, but also as a means of providing individuals increased flexibility and power.

But before the promise of desktop publishing can be fully realized, laser printers must be able to completely replace their predecessors. Excellent

software is now available, but many of us thrust into the maw of desktop publishing find ourselves with a shelf full of established software and data entirely lacking laser printer support.

Software development naturally lags hardware development. It takes time to use a new piece of equipment to its fullest. And when the device is ancillary, like a laser printer is to a data base program, support efforts may not even be undertaken by the application software developers.

The developers of specialized application software add features to enhance their special niche. To a word processing software developer, printer support is essential. However, laser printer support is a sidebar to the developers of spreadsheet, data base, accounting, and other specialized types of software. A spreadsheet programmer dreams of multi-dimensional conglomerations of relational matrices interspersed with turbo charged functions.

Support for more than 20 different font cartridges and an unending list of software fonts may be the last thing on an application software list. There are deadlines to meet and competition with whom to keep pace. As a result, the types of software which include adequate laser printer support are those tightly bound to printing--namely graphics and word processing software. Even so, many graphics and word processing programs still lack adequate laser printer support. And in the rest of the applications software world, lack of sufficient laser printer support is a nearly unanimous.

Yet even as some software developers begin to add support for existing laser printers, the next wave looms on the horizon. Hewlett-Packard will soon start shipping laser printers with a new and more powerful control lan-

guage, Imagen's Document Description Language (DDL). Rumor has it that IBM will soon release their own laser printer: undoubtedly incompatible with any existing laser printer.

More innovations may be just around the corner. The technology for desktop publishing is still very much in its youth. Each change wreaks havoc on the many software packages which have matured in the world of impact printers. The generation gap continues.

To bridge the desktop publishing generation gap, a new type of specialized software has been born: the laser printer utility. Insight Development, and a dozen or so software developers like us, have taken on the problem of harnessing the power of laser printers in an easy to use fashion. The need for a printer utility has never been more critical. Many specialized software developers will continue to ignore the need for laser printer support. Printer technology will continue to advance. A laser printer utility bridges the gap between the latest electronics and established software.

Currently, the end user bears the burden of the problems created by lack of laser printer support. It's regrettable that use of a device as powerful as a laser printer can be extremely difficult. We believe that the printer manufacturer's should assume responsibility for ensuring the ease of use of their products. Unfortunately, only a few printer companies have addressed ease of use directly and chosen to bundle utility software with their printers. We applaud the few for their commitment to user friendliness and hope that others will follow suit. The lag -- the desktop publishing generation gap -- will continue to exist until the roar dies down and an acceptable standard emerges. Until that time let's hope that more printer manufacturers will take this issue of ease of use to heart. Happy printing! §

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Retrospective

By Mark and Mary Robinson

Our November/December column introduced the Spellbinder Desktop Publisher — a unique combination in one tightly integrated package of a powerful word processor, a desktop publisher, and a text processing language. The January column defined desktop publishing and introduced the “multimedia computer” (whose primary application is desktop publishing). In it we claimed that desktop publishing and the speedier (and generally cruder) electronic publishing realms had just merged, courtesy of Spellbinder Desktop Publisher’s duplex and quadplex printing capabilities. This merger is significant, because now you can create finished products with your desktop publishing system; you can assume control of not only the typesetting and illustration functions, but also the printing, cutting, pasting, addressing, mail merging, collation, binding, and distribution of your printed product.

The Writ

This magazine’s writ is to explore desktop publishing on IBM PC and compatible systems. This exploration will chronicle the effort to match what already exists on the Macintosh. But comparisons of Macintosh to IBM are not terribly important to readers of this magazine, since they have in the main already voted with their pocketbooks for the IBM PC world. Informed observers believe that even as HP LaserJets greatly outsell Laserwriters now, so the IBM PC desktop publishing market will greatly exceed the Macintosh-based desktop publishing market. The advantage users gain by using their current computer for desktop publishing, and using only one type of computer for their work will tilt the issue in favor of the larger IBM PC market. In fact, if integration of software within a desktop environment is beneficial, then using the same machine for all applications is also beneficial. A person

who uses both an IBMPC and a Macintosh reminds us of someone riding two horses with a foot on each: we can only applaud his skill--if he is successful.

The Major Market Divisions

For the moment, the desktop publishing market divides by computer (the Macintosh vs. the IBM PC) and by printer (the Apple Laserwriter vs. the HPLaserJet). The most important advantage of the Macintosh is its integrated desktop environment compared to the absence of any dominant desktop environment package for the IBM PC.

The Desktop Environment

To date, various desktop environments such as GEM, Top View, and Microsoft’s Windows vie for acceptance in the IBM PC market. We are still waiting for a clear winner to emerge. Such a victory--and more importantly general acceptance--of any such IBM PC desktop environment standard is important to achieving a degree of productivity comparable to the Macintosh. For now, users of desktop publishing software carry the primary burden of achieving integration. Since they can’t count on a specific desktop (windowing) environment, desktop publisher software manufacturers must strive to integrate as many functions in a single package as possible.

The Goal of this Column

The fundamental goal of this column is to assist a user in putting together (integrating) all the elements of a complete and productive desktop publishing application and related applications. Finding a desktop publishing program which successfully integrated the main aspects of desktop publishing (word processing, typesetting, and page layout) was the first step in providing this assistance. Spellbinder Desktop Publisher is the center of our desktop publishing application on our “multimedia” computer system. Not only do we believe it to be the best word

processor, best typesetter, and best integrated package, but it also allows precise placement and flexible whole document format control.

Microsoft Windows

The desktop environment is vital to the facile control of all the elements of desktop publishing and hence to its productivity. Although we have some doubts about the emergence of a standard in this area, we believe that Microsoft, as the operating system supplier, is the logical and most likely candidate to provide this environment. However, until there is a widely accepted standard, software developers must still pursue integration on their own.

History May Repeat Itself

Some two to three years into the microcomputer revolution in 1976 and 1977, everyone expected multiuser systems to rise to prominence in the next six months, then, as time wore on, in the next year. Ten years later something similar, but not identical--LANS--may finally become a significant factor in the microcomputer marketplace. So what everyone expects doesn’t necessarily happen any time soon. A clear desktop environment standard may take as long to emerge.

Then Again, Maybe Not

However, four things make us hopeful of Microsoft Window’s success in providing the dominant desktop environment. First, the Macintosh provides a successful example which will inspire emulation. Second, as we said, a desktop environment is a logical extension of the operating system which Microsoft provides. Third, the character, intelligence, and experience of the firm’s founder argues that Microsoft will persist. Fourth, even as Microsoft developed Seattle Computers’ operating system into MS-DOS, Microsoft may develop the recently acquired Mondrian package into something really significant. Mondrian is (was) a multitasking operating environ-

ment with windows and a powerful set of utilities. We have seldom been so impressed with a product as with Mondrian.

Anyway, So What?

Even so, the desktop environment will probably arrive so slowly that integrated solutions based on certain programs such as Spellbinder Desktop Publisher will already be in place. Thus, Microsoft Windows will probably become the dominant desktop environment, but when this fact becomes clear to everyone, it will be greeted with yawns and not fanfares.

HP LaserJet vs. Apple Laserwriter

Previously the LaserJet - Laserwriter market division roughly corresponded to the Macintosh/IBM PC division, but now both printers can work on both types of computers. In the near future,

the discussion will center on differences between Postscript and DDL. Both printers are based on the Cannon Engine, so they are brothers under the skin. The maximum print rate of the Laserwriter is six pages per minute, and of the HP LaserJet, eight pages per minute. They both have 300 dots-per-inch resolution. After you add all the new features to the HP printer, it closely resembles the Apple printer in price. Initially the Laserwriter had more memory, but now memory upgrades are available for the HP LaserJet + to essentially eliminate that difference. The LaserJet + added the capability of downloading fonts at full resolution. With the memory upgrades, it can handle a full page and more fonts. The Laserwriter initially enjoyed another "advantage"--the Postscript page description language which is permanently embedded in ROM. As far as we know, of the

programs using Postscript, only Spellbinder Desktop Publisher and VMS TeX can manage right justified, proportionally-spaced printing--the sine qua non of any typesetting or even decent word processing program. Just like precise positioning using the mouse, achieving all these features in the same product is possible but requires more from software developers. The Spellbinder Desktop Publisher Postscript driver (Release 6.3) does not let Postscript's complexity prevent it from properly calculating and controlling print positions in order to achieve not only right-justified, proportionally-spaced print, but kerned output as well. Kerning, by the way, is a technique which takes not only the size of each individual character into account, as does proportional spacing, but its shape as well, so that how letters "fit together" will determine their spacing. The Spellbinder Desktop Publisher also controls in 100ths of an inch increments

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for virtually all functions, but controls in 300ths of an inch intercharacter and interline spacing (called leading).

Postscript for the PC

Previously the only "low cost" laser printer with Postscript capabilities was the Apple Laserwriter, but now there are at least six ways to get Postscript on an IBM PC. First, you can buy an Apple Laserwriter. At the recent COMDEX in November, 1986, at Las Vegas, we heard an Apple official state that Apple expected 75 percent of desktop publishing would soon be done using IBMPC's or their clones, but that Apple planned to "participate" in that market. In the near future, Apple's profits may owe as much to the Apple Laserwriter as to the Macintosh. Certainly HP's printer sales dwarf its computer sales. The second way to get Postscript is to buy a controller board that fits into an IBM PC buss slot. For the third solution you can lift the top of your LaserJet + and install another controller board. We call the fourth way the "bump in the line" technique, where the controller is placed between the computer and the printer, much like a printer buffer. The fifth way is to plug in a personality module as is possible with the Genicom Laser printer. Sixth, you can soon buy a printer other than the Apple Laserwriter that has a Postscript Controller. A seventh method is a software emulation, but we have yet to hear of anyone using that approach. HP has adopted DDL, the Document Description Language from Imagen. Purportedly this language provides some functions spanning pages and even applying to whole documents. Whether this will be any great advantage over supplying those same functions via software (or even be a disadvantage if they happen to be too inflexible) remains to be seen. HP will provide DDL in a controller board which plugs into an IBM PC buss. But will anyone adapt DDL to the Macintosh or to the Laserwriter? Genicom plans to include a DDL personality cartridge for its Laser printer. If DDL's virtues loom large, and no one makes it available for Apple's computer or printer, then there will be another asymmetry in the marketplace--this time to Apple's disadvantage.

Scaled vs. Bit-Mapped Fonts

The Laserwriter, courtesy of Postscript, calculates the bit maps for each character of whatever size or orientation from a scaling formula. This takes more time, but less memory than the pre-recorded bit-map technique of the HP LaserJet series. Thus the Laserwriter has effectively more fonts in the same memory. Also, it's easier to design Postscript fonts, since you essentially define a whole family of fonts, instead of just one size, style, and orientation. Thus, not only can the Laserwriter have more fonts available simultaneously, but more fonts got designed for it. This is slowly changing, of course, as third party font developers laboriously broaden their offering to cover both printers.

The FontCenter Font Editor

The FontCenter program (mentioned in our January column) offers a short cut by allowing the interconversion of the most important font species. FontCenter can also scale, slant, rotate 90 degrees, thicken or thin bit-mapped character images for use in several non-Postscript printers. So, if you're missing a size or orientation of some HP font, you can now plug that gap with FontCenter. Spellbinder Desktop Publisher works very well with FontCenter, since it automatically takes HP LaserJet font information into account. Thus, Spellbinder can instantly use any such fonts created or converted by FontCenter to the HP LaserJet format. In principle, algorithmically scaled fonts, such as Postscript's, cannot achieve the ultimate in esthetic appeal. It takes the skilled human hand and eye to do that. Generally speaking, if you just want to convert fonts from one form to another bit for bit with FontCenter, no editing is required. However, you must expect to spend from hours to days editing fonts that you have scaled up and down in size. We don't even want to think about doing a font totally from scratch. According to other practitioners of the desktop publishing art who have dealt with both techniques, the Laserwriter fonts just aren't as crisp as the HP LaserJet's. Of course, if true, this fuzziness could be due to other aspects of the Laserwriter Controller and not

merely to the limitations of Postscript's formula-based techniques.

Coming Soon

In future columns we will give a more detailed evaluation of FontCenter. We will explain our choice Spellbinder Desktop Publisher as the centerpiece of our "multimedia computer" and tell you about our use of desktop publishing in our writing and manual design.

SpellBinder by Lexisoft, Box 1950, Davis, CA 95617 (916) 758-3630

FontCenter by POEMS, 509 Marin St., No. 121, Thousand Oaks, CA 91360 (805) 373-1919

Genicom Laser Printer manufactured by Genicom Corporation, Genicom Drive, Waynesborough, VA 22980 (703) 949-1000

Mark and Mary Robinson founded Mark I Consultants in 1976. They consult, conduct Spellbinder and database classes for individuals and large groups, and write manuals for microcomputer software and hardware. Mark I Consultants, P. O. Box 5000, Davis, CA 95617-5000 (916) 756-5080 §



HEADLINE FONT
ITC Garamond (Bitstream)
SUBHEAD FONT
Zapf Humanist 601 (Bitstream)
BODY TEXT FONT
Tms Rmn (Hewlett Packard)
WORD PROCESSOR
Spellbinder (Lexisoft)

Want more detail?
Turn to page 24.

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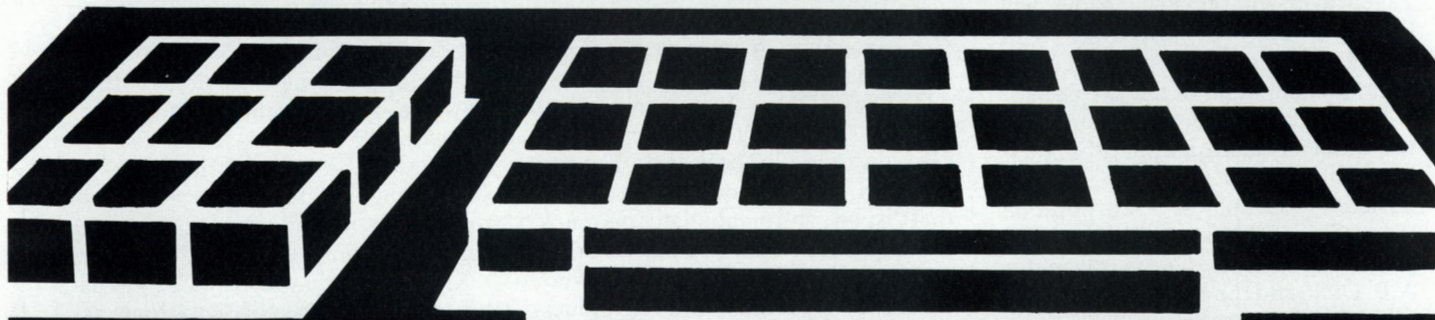
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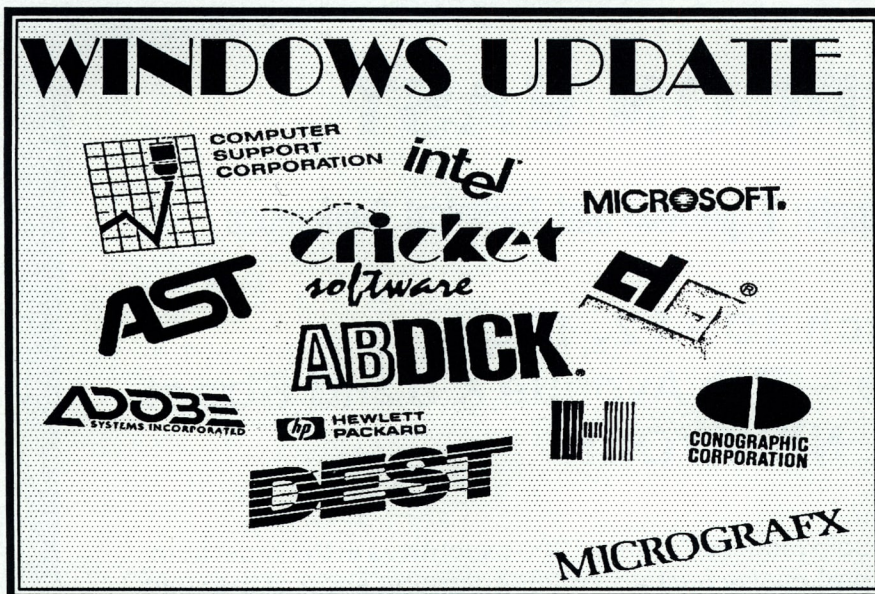


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The acceptance of Microsoft Windows as one of the most popular operating environs on IBM micros and compatibles, especially in the Document Design and Delivery (D-3) workplace, is becoming more and more evident. Here are the latest product entrants to Microsoft Windows:

DESKTOP PUBLISHING PROGRAMS

Aldus Corporation (Seattle, WA) - PageMaker for the PC. Aldus will bundle a copy of Microsoft Windows for the first 90 days after the first customer shipment of the program.

A.B. Dick Company (Chicago, IL) - to market an electronic publishing system called InPrint

Island Graphics Corporation (Sausalito, CA) - developing two publishing systems. One is InPrint for A.B. Dick, and the second is Prism for MicroPro International

MicroPro International (San Rafael, CA) - to market a desktop publishing product codenamed PRISM that runs under Microsoft Windows

Manhattan Graphics (Valhall, NY) - company is currently porting the Macintosh publishing program, ReadySetGo, to Microsoft Windows to run on PCs

Soft Test (Ridgewood, NJ) - currently marketing Softype, which turns

any word processor into a publishing system and allows Microsoft Windows graphics files to be merged with standard documents and then be printed.

GRAPHICS

Cricket Software (Philadelphia, PA) - will market Cricket Graph, which supports full color charts under MS Windows as well as supports Window's Dynamic Data Exchange (DDE) and works as either a standalone graphics program or in conjunction with D-3 applications.

Enabling Technologies Inc. (Chicago, IL) - to market Pro3D, a three dimensional graphics program

GEOVISION, Inc. (Norcross, GA) - company has produced GEOdisc and OnTheWorld. The latter is a MS Windows application that displays and manipulates the maps on the CDROM-disc based GEOdisc

Hammerlab Corporation (New Haven, CT) - producing three graphics products for the MS Windows environment: Hammerlab Scan-Do, which uses most of the major scanners to place drawings and photographs into MS Windows software; Hammerlab BigPaint, a paint program which is only limited in its scope by the storage available on your disk; and Hammerlab Museum, a method in which to save MS Windows images while using other MS Windows software

Micrografx, Inc. (Richardson, TX) - developed and marketing Microsoft Windows Graph, a business graphics and charting program. The company also has two other programs that run under Windows, In*A*Vision (a CAD software program) and Micrografx Draw! (presentation graphics program).

Mitac, Inc. (Taipei, Taiwan) - developers of EasiDraw, a technical drawing package

CLIP ART

Computer Support Corporation (Carrollton, TX) - to release Diagraph and Picture Perfect designed specifically to operate under MS Windows, with the programs allowing you to merge the company's library of 5,000 clipart symbols and 40 typefaces with word processing programs

Dynamic Graphics, Inc. (Peoria, IL) - developing World InPrint, a five volume set of symbolic art, business illustrations, decorative borders and other themes and to be published exclusively for A.B. Dick's InPrint publishing system.

T/Maker Company (Mountain View, CA) - currently porting their Macintosh Clip Art Library to MS Windows for PC publishing use

FONTS

Adobe Systems, Inc. (Palo Alto, CA) - developing a new version of their downloadable PostScript fonts for use with MS Windows

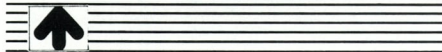
Bitstream, Inc. (Cambridge, MA) - developing PC Fontware which will provide device independent fonts for software running under MS Windows

Xiphias (Marina del Rey, CA) - a custom designed library of digital fonts has been licensed by Xiphias to Intel, who will supply at no charge this library to developers of products based on Intel's 82786 graphics co-processor

COMPONENTS

Intel Corporation (Santa Clara, CA) - a cooperative program has been jointly entered whereby MS Windows

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software driver technology for designs using the Intel 82786 graphics coprocessor have been provided.

Texas Instruments (Austin, TX) - currently developing a software driver for their TMS 34010 graphics microprocessor so that it will support MS Windows

SCANNERS

Datacopy (Mountain View, CA) - producing PCImage, an image processor for use by PC publishers which runs under MS Windows and operates with Datacopy scanners. The company's WIPS software has also been upgraded to support the Tag Image File Format (TIFF) proposed for digital image data interchange under MS Windows

DEST Corporation (Milpitas, CA) has produced Publish Pac software for their scanner, which supports both the company's new PC Scan Plus and existing PC Scan formats as well as stores data in both TIFF and PC Paintbrush formats.

Microtek Lab, Inc. (Gardena, CA) - produced ScanMate software for its MS-300A scanner, a MS Windows-based software package.

POINTING DEVICES

FTG Data Systems (Stanton, CA) - when purchasing a FT-156 High Performance Light Pen and PXL-350 Hi-Res Light Pen Board, the company is offering a free copy of MS Windows

Kraft Systems (Vista, CA) - marketing both the Kraft IBM Joystick and the Kraft Micro Mouse, both support MS Windows

The Lightpen Company (Los Angeles, CA) - marketing the LTC Lightpen screen pointing device for use with MS Windows

Logitech, Inc. (Redwood City, CA) - marketing the LogiMouse available in either a serial or bus configuration for use with MS Windows

Microsoft Corporation (Redmond, WA) - marketing a mechanical mouse in serial, bus, or InPort configuration for use with MS Windows

Mouse Systems (Santa Clara, CA) - produces the Mouse Systems PC Mouse for bus or serial configuration that supports MS Windows

The Torrington Company (Torrington, CT) - produces the Manager Mouse which is a two-wheel mechanical mouse in either serial or bus configuration for use with MS Windows

MONITORS

Conographics (Irvine, CA) - The ConoVision 2800 board provides both a very-high resolution monochrome graphics adapter and a RIP for doubling the output of the HP Laserjet and other laser printers based on the Canon LPB-CX engines to 600 by 300 dpi

Micro Display Systems, Inc. (Hastings, MN) - the Genius VHR Monitor supports a full page (66 lines) of text using a resolution of 728 by 1008 pixels

Metheus Corporation (Hillsboro, OR) - marketing the Metheus Omega PC and the Metheus 1008 graphics display boards

Moniterm Corporation (Minneapolis, MN) - the Viking 1 Hi-Res display system offers a resolution of 1280 by 960 on a 19-inch monochrome monitor and provides an accelerated, hardware assisted interface to MS Windows

Orchid Technology (Fremont, CA) - selling the Turbo EGA Card, which combines a 80286 accelerator card and EGA graphics board on one card

Quadram Corporation (Atlanta, GA) - marketing the QUAD EGA + and the QUAD EGA ProSync graphics display boards. Each board includes a coupon for a copy of MS Windows for \$30.

Sigma Designs (Fremont, CA) - is producing the Color 400 graphics board which displays 16 colors with a resolution of 640 by 400

STB Systems (Richardson, TX) - producing the Chaufer HT and EGA Multi-Res graphics display boards, with the latter board supporting resolutions up to 832 by 350 under MS Windows

Verticom (San Jose, CA) - developed a MS Windows driver for their Desktop 480 desktop publishing graphics board

Video-7 (Milpitas, CA) - shipping a set of special drivers that support MGA, CGA, HGC and EGA plus resolutions of 6430 by 480 and 752 by 410 with a NEC MultiSync or compatible monitor

Wyse Technologies (San Jose, CA) - created a MS Windows driver for their graphics subsystem, the WY-700, which supports several resolutions up to 1280 by 800 pixels

OUTPUT DEVICES

Advanced Matrix Technologies, Inc. (Newbury Park, CA) - developed a MS Windows driver to support their AMT Office Printer, which supports complete multi-color printing, prints speeds of 45/100/250 cps, and graphics printing of up to 240 by 480

AST Research, Inc. (Irvine, CA) - created the AST TurboLaser printer and a MS Windows driver to support the printer

Linotype Company (Hauppauge, NY) - produces the Linotronic 100 and Linotronic 300 typesetters utilizing the PostScript page description language

Xerox (Lewisville, TX) - produced a driver for the 4020 color ink jet printer which is included in the MS Windows driver library. §



HEADLINE FONT

Broadway (Bitstream)

SUBHEAD FONT

BDW (VS Software)

BODY TEXT FONT

Tms Rmn (Hewlett Packard)

WORD PROCESSOR

MS-Word (Microsoft)

IMAGES

PC Scan Plus (Dest)

UTILITIES

PC Paintbrush Plus (ZSoft)

Want more detail?

Turn to page 24.

Product PERSPECTIVES

By Hartley and Patricia Lesser

The growth of the D-3 habitat continues to accelerate. As the industry experiences an ever increasing number of product debuts and announcements, so does the size of PC Publishing magazine. In fact, we've had little choice but to take this magazine to a monthly publishing schedule. We hope this increase in our printing schedule continues to afford you the most complete, most up-to-date information regarding your D-3 work with IBM micros and their compatibles. Please don't hesitate to contact us with any requests for product follow-up, product news, or new products that you may have heard about. We definitely need your input to mold PC Publishing into the format that serves your needs best.

NEWS

In this month's D-3 news coverage, we have learned of a new Aldus Corporation agreement with the venerable Wang Laboratories. Wang will be able to release their own version of Aldus' PageMaker desktop publishing program, with marketing rights for this program in both the United States and Canada. Additionally, Wang signed with Textet Corporation for their Live Image Publishing System, giving Wang a fairly complete answer to the needs of corporate electronic publishing within the Wang office environment. The Wang VS minicomputer will serve as the

communications hub, which will host specialized "job control" software that is designed to assist the user with document tracking and assembly. The aim of these agreements, according to Sharon Matthews, Wang's director of Office Applications, is to "integrate the electronic publishing dimension into a corporate network of distributed systems so that text, graphic, and image information can be generated, composed, shared and delivered efficiently."

As an aside — both Atari and Commodore firms have released PC-clone machines. The viability of MS/PCDOS as an operating environment is thereby strengthened, and will now, even more, be moving into the home environment as well as its already massive strides in the corporate world. The Atari PC packs 512 K of RAM and is priced around \$700. Commodore released two machines, the PC10-1 and the PC10-2, both with 640 K of RAM, selling from \$1,000 to \$1,200.

And how is PageMaker for the PC faring? The latest news, directly from Paul Brainard, is that their desktop publishing product for the IBM environs will ship on January 30, 1987. According to Paul, the product is 100 percent feature complete. The program now has a number of new features, including seven, separate word processing import filters to accommodate 11 of the most popular PC word processing programs. There are also eight graphics import filters and support for a large number of scanners. Also, as the source code

has been completely rewritten, the PC version and the Macintosh version of PageMaker will be able to share about 80 percent of their code. Finally, TalkWare is becoming RealWare!

Adobe Systems continues to garner support for its page description language, PostScript. The latest to join the flock is **Lexisoft, Inc.** (Davis, CA * 916/758-3630). The company has announced that Spellbinder Desktop Publisher has a new version that has the ability to write PostScript code through "inline" commands, and send those instructions to the printer. This will allow a knowledgeable user of this product to expand, condense, rotate or tilt text and graphics to a precise degree. Additionally, PostScript allows for shadow letters, the ability to print text around corners, or to place patterns within text characters themselves. Best of all, files created with earlier versions of Spellbinder Desktop Publisher will remain compatible with the PostScript version. Pricing will remain at \$695. The program requires 256 K of RAM and a graphics board. **Circle #240 on reader service card for more information.**

An action that has been undertaken that was long overdue is the removal of the protection device from AutoCAD by **Autodesk, Inc.** (Sausalito, CA). One reason for removal of the hardware anti-theft device, according to John Walker, chairman of the company, was due to adverse comments in the press and user complaints. According to Alvar Green, president of Autodesk,

"We never anticipated that some users would view what we intended only as a nonintrusive means to enforce our user license agreement as an assault on their moral integrity." Of good news to those U.S. and Canadian registered owners of the protected version of AutoCAD, Autodesk will be shipping to them, at no charge, the unprotected version. PC Publishing heartily endorses this Autodesk move. Autodesk will also be shipping version 2.5K of their AutoCAD AEC Architectural free-of-charge to all registered owners of the program. All of the known errors with the program have been fixed and now, door and window insertions are possible in walls with a thickness greater than 12 inches. There is also an enhanced version of the company's drawing program, AutoSketch, that is fully compatible with the 8087 or 80287 math coprocessor. This enables the program to run as much as three times faster and, as this version is a smaller program, there is more available memory, allowing for more complex or larger drawings. (\$99.95) **Circle #241 on reader service card for more information.**

You can now also find DEST's personal computer scanner products in Entre Computer Centers. An agreement has been signed by both companies allowing Entre to carry PC Scan, PC Scan Plus, Text Pac and Publish Pac products. Entre has 200 franchises, including 10 company-owned Entre stores in the U.S. and Canada.

If you've been waiting to purchase an IBM XT for better pricing, such may now be your moment! IBM has reduced the prices on two XT models and an AT model. The XT Model 286, which features 640 K, a 1.2 MB 5-1/4" disk drive, a serial/parallel adapter and an IBM PC keyboard, is now priced at \$3,395, down from \$3,995. The XT Model 089 with 640 K of RAM, a 360 K floppy drive and a 20 MB hard disk drive is now \$2,600, as compared to \$2,895 previously. The AT model is the 068 with 256 K of RAM, a 1.2 MB disk drive and the AT keyboard, priced now at \$3,395,

down from \$3,995. Sort of reminds one of a clearance sale?

Cordata (Thousand Oaks, CA) has signed an agreement with **Lexisoft, Inc.** (Davis, CA) that should be of great interest to resellers of Cordata equipment. The agreement allows resellers to order Lexisoft's Spellbinder desktop publishing program for \$150 -- that's a whopping discount from the normal retail list of \$695 -- on a one to one basis. This means that should the reseller purchase three laser printers and one memory upgrade card, he or she can photocopy the invoice from Cordata, mail the invoice in to Lexisoft and order four Spellbinders at \$150. For an additional \$20, a special dealer sales kit can also be ordered which includes demo files, ad slicks and the like. Regarding the shipping of Cordata's turnkey desktop publishing system, Intellipress, the company still plans on initiating their first shipments of the product line at the end of January, but only with the Ventura Publisher option, as PageMaker for the PC is not ready for shipment yet.

Watch for a real push by Mitsubishi to increase name recognition of that company's line of high resolution color monitors. The company is quick to state that they aren't de-emphasizing their OEM strengths, but are trying to focus on additional market segments and areas of rapid growth. The company plans to sign 30 major distributors by the end of 1986, and is predicting an increase of 200 percent in combined sales for 1987. To further this end, the company will offer end-user product warranty service programs, national and co-op advertising programs, a toll-free referral line, and in-store, point-of-purchase materials. Recently, the company added their Intelligent Graphics Monitor (IGM-3000) Series and Diamond Scan multi-application monitor to their brand name products line.

PC Quick-Art (Athens, GA) has signed a distribution agreement with **Z*Soft Corporation** (Marietta, GA), the developers of PC

Paintbrush. PC Quick-Art will now be offered in addition to that company's line of graphics software. The Z*Soft clip art volumes are unique to the Z*Soft Corp. and can only be purchased from Z*Soft. And there's some additional exciting news from PC Quick-Art -- please read the [graphics software](#) section to learn how you can negate all of the graphic file worries inherent with file transfer from one graphics program to another!

Now there's a 30-day, money-back guarantee on **Personal Choice Software's** Writer's Choice and The Personal Choice Collection. This company, a subsidiary of **Activision, Inc.** (Mountain View, CA) is basically targeting their writing products for the small business and home. Writer's Choice is a word processing program that facilitates any kind of writing need, while The Personal Choice Collection is an assemblage of productivity programs that includes Writer's Choice, Planner's Choice (spreadsheet), and Filer's Choice (database). All products work with IBM micros and their compatibles.

Coming soon is a new version of ScenicWriter from **ScenicSoft, Inc.** (Edmonds, WA), one with full support for the Ricoh LP4080 and Xerox 4045 printers! One of the ScenicWriter benefits is the fact that the program features a 60-day, money-back guarantee which entitles the purchaser to a full refund if the program doesn't fully meet their expectations.

We have received information as to the formation of the seventh annual **Seybold Seminars**. This one week group of seminars will take place at the Beverly Hilton Hotel in Beverly Hills, CA, commencing on Monday, March 9th, through Friday, March 13th. There will be three back-to-back seminars: the first is a two day clinic that will deal with new publishing technologies, the second seminar will cover pagination and systems integration, and the third seminar will be a two-day symposium on the structure and future of the electronic publishing industry. In the New Technologies

seminar, for example, new developments in everything from desktop computer systems to output printers and imagesetters and CD-ROMS will be covered. Further information may be obtained by calling (213) 457-5850.

Corporate Electronic Publishing Systems are known as CEPS, and are specifically targeted at the newspaper industry, news wire services and catalog publishers. One of the leaders in this environment has been **CADDEX Corporation** (Woodinville, WA) They have now been acquired by **SII - System Integrators, Inc.** (Sacramento, CA), and CADDEX will operate as a wholly-owned subsidiary of that company. SII has been a pioneer in the development of Computer Aided Publishing (CAP) systems for the newspaper industry ever since 1973. The company hopes this acquisition will aid them in their penetration into the ever-expanding corporate publishing market, estimated by some analysts to encompass over \$5 billion in sales between now and the close of 1990.

For **T&W Systems** aficionados, there's been a company name change to better reflect the success of their VersaCAD product line. The new company name is **Versacad Corporation**, and they are still located at 7372 Prince Drive, Huntington Beach, CA - 92647.

Finally, **IBM** has decided to do something of note in regards to desktop publishing programs. Talk is that Big Blue will unveil six new products in January of '87. As is their wont, IBM rarely, if ever, pre-announces any of their product line, and the fact that an official IBM spokesperson clued the press in to these product announcements is a first in, and of, itself. So, what sort of products may consumers expect? Not all will be from IBM itself ... perhaps we could see some form of collusion with the likes of Aldus, Studio Software or Ventura - but IBM does plan to address the needs of not only the PC user, but the higher end 3638 and 370

architectures as well. As far as an initial product, experts indicate that an IBM laser printer is well within the realm of possibility, one that could address resolutions of 400 dpi or more. We'll just have to wait and see, but the time has come for Big Blue commit more than mere words to the desktop publishing environment.

DESKTOP PUBLISHING PROGRAMS

Upgrades to **Data Transforms** (616 Washington Street, Denver, CO - 80203 * 303/832-1501) Printrix and Fontrix programs have been completed. Fontrix now requires 512 K of RAM in computer in order for the larger program to operate, but a great number of features have been added. In the Fontrix Graphic Writer, you can now specify one-, two- or three-column format. Textfile input can be justified to left, right, center or fill. The Font Librarian will now accept the new 96 by 96 pixel fonts, and you can now have up to 360 K of fonts resident in memory. All of the fonts from a specified subdirectory can now be reloaded with the press of a single key, and the spacing, italics, boldface and other font parameters from the font library menu can be controlled from both the Graphic Writer as well as the graphic screen. With the program's new format for font storage, the company's larger fonts fit in approximately the same space as the smaller fonts did, and you can create and edit font characters in seconds without having to fill in every pixel by hand. A magnification routine allows you to enlarge old characters inside a larger character cell. Several new printers are also supported with Fontrix v2.8: Canon BJ-80 Inkjet, DataSouth 220, IBM Color Inkjet, Kyocera F1010 Laser, Quadram Quadlaser, Tektronix 4696 Color Inkjet, and the Toshiba P351C Color Impact printer. As far as Printrix v2.4, the Font Library Format now accepts the new 96 by 96 pixel fonts

ERRATUM

In our December issue, we reviewed a tremendous product that is perfect for those operating several computers with a single laser (or other) printer. The product was the DataManager Plus 256, which enables as many as five computers to access a variety of printers without incurring the expense of a local area network to facilitate such an operation. We indicated in the review that the dip switch settings that control the output to specified printers could only be changed by removing the unit's cover. That is not the case, and we stand corrected. Soft switches can also modify the printer port selection. For example, the following BASIC program could be run whenever you needed to change the dip switches, or they could be installed as part of an AUTOEXEC.BAT file, thereby eliminating the need to remove the unit's cover.

GW BASIC, v2.0 Sample two printer setup

```
10 INPUT "PRINTER 1 OR 2";A
15 IF A=1 THEN 20 ELSE 25
20 LPRINT CHR$(27);CHR$(27);"_1";
21 GOTO 30
25 LPRINT CHR$(27);CHR$(27);"_2";
30 SYSTEM
SAVE "DM42.BASIC"
```

There you have it! Soft switch selectable printer selection is yet another feature of the Data Manager Plus 256. For additional configurations, contact Integrated Marketing Corporation, 1031 East Duane, Suite H, Sunnyvale, CA 94086, (408) 730-1112.

OOPS!

In our last issue (#5), we forgot to credit **Katy Chandler** for creating the **D-3 (document, design & delivery) logo on page 6**. Our sincerest apologies, **Katy!**

that are created with Fontrix, and the program continues to operate on machines with as little as 256 K of memory. For form conscious individuals, there's the new Visual Forms program from DeereSoft, Inc. (PO Box 1360, Melbourne, FL - 32902 * 305/768-2477), which allows you to create customized forms for output to any number of supported dot matrix, letter quality and laser printers. The program provides: standard, legal or custom form sizes; automatic line and box drawing; copy justification; automatic underling of text or spaces; cut and paste with trial positioning; shading, patterning; and automatic checkoff box. The program also provides for variable font sizes and also has a library of disks with prepared forms in several commonly used areas. The suggested list price is \$89.95 **Circle #242 on reader service card for more information.**

Another player in the forms department is **Electronic Form Systems** (2395 Midway Road, Carrollton, TX - 75006-25004 * 214/250-7000) who has introduced their Formwriter 2X, a PC-based laser printing system with extended paper handling capabilities. The offering can merge variable data generated from popular software packages with electronically-stored forms to produce up to eight completed forms per minute. As many as 5,000 individual electronic forms, plus up to 150 fonts, signatures, and logos are stored on hard disk and are accessed by Formdriver Software. The system prints multiple, collated copies of both letter and legal size documents and provides manual adjustment for forward or reverse collation. In face down output mode, paper stock can be offset stacked. Formwriter 2X includes a laser print engine from Canon that produces up to eight pages per minute (ppm). The Formwriter 2X Laser Printing System includes eight hardware and software subsystems. (\$5,995). There are five other Formwriter Laser Printing Systems that range in speed and price from eight ppm and \$4,995 up to 20 ppm with duplex printing for

\$24,995. The company has also announced a printer interface that supports the Xerox 4045 Laser Copier/Printer. **Circle #243 on reader service card for more information.**

A move by **Orbit Enterprises, Inc.** (PO Box 2875-CX, Glen Ellyn, IL - 60138 * 312/469-3405) has turned their CanSet program into a ShareWare product. CanSet is a setup utility that allows you to select fonts, change margins and line spacing, set the number of copies and generally access most features of the Canon LBP-A1/A2 printers. Program features include: no escape sequences to learn; a choice of menu-driven or command line modes; controls for margin settings, lines per page, lines per inch and the number of copies; and support for font cartridges, type sizes and pitches. The ShareWare concept is one of "try before you buy", and the user may copy and distribute the program in its entirety without any restrictions. If the user finds the software to be of use, the company requests a registration fee, which in the case of CanSet is a most reasonable \$25. **Circle #244 on reader service card for more information.**

Designed for the Hewlett Packard LaserJet and LaserJet PLUS printers, **QCAD Systems, Inc.** (3333A Octavius Drive, Santa Clara, CA - 95054 * 408/727-6671) has released a new version of their program QROFF. QROFF, version 3.00, is a package that provides the user with the capability to mix different fonts, align margins, center, underline, use subscript, and to generate an index. Users can now format a document while filtering out the actual LaserJet command codes, which provides a close approximation of the true result, which can be viewed on the screen, or printed on any printer, since the output is pure text. You can also mix fonts, set page specifications, and control spacing in units ranging from inches down to decipoints (1/720th of an inch). QROFF can also be used with most popular word processors, as it is strictly a text formatter, not an

editor. Of interest to VAX users is the fact that QROFF will also run on those systems as well. The PC version sells for \$79.95, the VAX version for \$295. **Circle #245 on reader service card for more information.**

A great deal of work is currently underway by **The 'Puter Group** (1717 West Beltline Hwy., Madison, WI - 53713 * 608/273-1803) on their PageWriter publishing program. This is a self-contained program that offers word processing with hyphenation and justification, internal graphics (such as rules, blackouts and screens), pasteup and telecommunications all in one offering. The program uses function key and cursor control, along with screen menus that ask for letter or number responses. Also, the program shows type in actual size and placement on the pasteup screen. PageWriter came from the professional typesetting environment, specifically supporting Compugraphic MCS typesetting system, and retains this heritage with a wide range of typographical refinements. The program runs on IBM micros and compatibles and does not require a graphics card or high resolution monitor. Any PostScript font, in increments from one point to 9999 points, is supported. So what on earth is the company working on? They hope to have full graphics importation capability via the likes of PC PAINT and PC PAINTBRUSH by January of '87, as well as full support for the Hewlett Packard LaserJet and its compatible units and the DDL document description language. Automatic copy flowing is also expected within this same time frame, as our style sheets. Priced at \$295, the program also comes with a 90-minute VHS or Beta training tape. The company has JUST announced version 2.1b of PageWriter, which now includes user definable keys and a "counting" text editor with automatic justification and hyphenation, including an expandable word exception dictionary. Other features include typesetting commands for advance/reverse leading or forward/back point. The pricing

remains at \$295! **Circle #246 on reader service card for more information.**

White Sciences, Inc. (PO Box 24756, Tempe, AZ - 85282 * 602/967-8257) is currently developing several enhancements to their Pagebuilder desktop publishing package. These features include: Hercules graphic card and Genius monitor implementation, AutoCAD interface to import DXF (Data Exchange Format) files into your Pagebuilder document, plus additional font packages. The program update disks, when ready, will be available only to those users who have completed and returned the Pagebuilder warranty cards to the company. These disks will include a special bonus, consisting of two additional fonts: Roman Fixed Width 12 point and Roman Fixed Width 14 point, both the screen and the printer fonts. Fixed width fonts are particularly useful for tabular material where proportional fonts are not suitable. Also coming is a new Appendix C for the documentation. This appendix will contain instructions that will enable you to configure Pagebuilder for your word processing environment. **Circle #247 on reader service card for more information.**

GRAPHICS BOARDS

EGA support for the Compaq PC Portable is now offered by **ATI Technologies, Inc.** (450 Esna Park Drive, Markham, Ontario, CANADA - L3R 1H5 * 416/477-8804) via an expansion module for their EGA WONDER board. This offering allows the Compaq Portable to display EGA, CGA, and Hercules graphics on the internal monitor of the computer. Colors are converted into shades, graphics are full-screen, and no pre-boot drivers are required. The COMPAQ EXPANSION MODULE piggybacks to the EGA WONDER board's feature connector, eliminating the

need for an extra slot, and retails for \$99. The ATI EGA WONDER has built-in SoftSense Automatic Mode Switching and is able to sense and automatically switch between EGA and CGA color modes or between EGA, MDA and Hercules monochrome modes. **Circle #248 on reader service card for more information.**

Another new board which we feel has the capability of playing a major role in desktop publishing is the Professional Image Board from **ATronics International Inc.** (1830 McCandless Dr., Milpitas, CA - 95035 * 408/942-3344). The board enables a video camera, either color or black and white, to be interfaced with your PC and the live scenes instantly captured and frozen. The frozen image can then be enhanced by the computer and stored on disk for use in your documents. The image captured by the Professional Image Board can be displayed on any EGA monitor, and you can add text to the

captured picture. A real plus is the ability to telecommunicate any PIB captured image to another computer anywhere in the world via modem. The pricing is a very reasonable \$595 and production versions will be shipping by mid-February. **Circle #249 on reader service card for more information.**

QDP Computer Systems

(23632 Mercantile Road, Beachwood, OH - 44122 * 216/464-6600) has informed us of a new AutoCAD driver (version 2.0) for the company's family of VIVA graphics boards. This new driver increases the redrawing and regeneration speed of AutoCAD drawings by a factor of four. The driver, written entirely in Assembly Language, only uses 8 K of memory. **Circle #250 on reader service card for more information.**

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powerful versions of earlier models. The boards are TurboCache EGA!, TurboCache C400 and TurboCache 286, from **Sigma Designs, Inc.** (46501 Landing Parkway, Fremont, CA - 94538 * 415/770-0100). The first board offers both the increased speed and memory of the TurboCache 286 and a piggy-back EGA Stack board. This board provides several video display capabilities (EGA, CGA, MDA and Hercules) as well as 16-bit wide video BIOS, which allows for faster screen displays and updates. The price is \$899. The second offering from Sigma is the TurboCache C400, a combination of the TurboCache 286 with a Color 400 Stack board. The TurboCache C400 provides a non-interlaced display resolution of 640 dots by 400 lines, 16 colors, sharp text modes, and automatic doubling of 200-line, CGA based software. It, too, features 16-bit wide video BIOS. The TurboCache C400 is priced at \$949. The reason for inclusion of the TurboCache 286 in a magazine that deals with desktop publishing is that many of us possess an XT and are finding speed to be somewhat of a problem with some of the sophisticated D-3 programs available today. The TurboCache 286 is an accelerator card for the PC and XT and is based on the Intel 80286 processor. Running at 10 MHz, the board includes 16 K of proprietary, zero-wait-state cache memory and an optional 80287 numeric coprocessor. You can even upgrade the cache memory to 64 K for even higher processing speeds. Thanks to utility software, you can boot the system under the 80286 mode or the native 8088 mode. You also have available dynamic switching capability between the two modes. Other features include compatibility with the LIM EMS, and a hardware reset switch. The board retails for \$649. **Circle #251 on reader service card for more information.**

If you're into Hercules compatibility, then **STB Systems'** (601 North Glenville, Suite 125, Richardson, TX - 75081 * 214/234-8750) latest H Card is a

definite "look-at". The H Card is functionally identical to the Hercules Graphics Card and provides 720 by 348 monochrome graphics. The same high quality 7 by 9 text characters are also offered. You can run the same business graphics software on the H Card as on the Hercules Graphics Card. Video attributes of highlight, blink, underline, reverse and blank are provided, as well as 80 column by 25 line text display. (\$239) **Circle #252 on reader service card for more information.**

Tatung Company of America, Inc. (2850 El Presidio Street, Long Beach, CA - 90810 * 213/637-2105) is now marketing an enhanced version of their high resolution EGA card. This new version offers a screen-saving features and the layout and basic I/O systems have been improved to ensure software compatibility. The board has been named the TEGA-22 Plus. The board also offers flicker-free performance, 256 K of display memory, and horizontal scan rates of 15.75 KHz, 18.43 KHz, or 22 KHz. Sixteen color choices are available from a palette of 64 for EGA mode. The price of the TEGA-22 Plus is \$599. **Circle #253 on reader service card for more information.**

OTHER BOARDS

If you wish to increase the operational speed of your PC, and currently don't have the financial wherewithal — or desire — to buy a new AT or compatible, then perhaps the latest offering from **Microspeed Inc.** (Fremont, CA * 415/490-1403) will be of aid. The company has introduced an enhanced version of their Fast88 accelerator which is FCC Class B certified and includes software speed switching, software device drivers and other option settings. This board offers users of IBM PCs, Xts and compatibles a performance increase of as much as 60 percent, at 100 percent software and hardware compatibility. The Fast88

can be completely installed inside a PC with no external components. The offering replaces the computers CPU with a higher-speed 8088-2 (or optional NEC V-20 cpu) and by replacing the normal 4.77 MHz system clock with a frequency clock generator with frequencies of 6.1, 6.7 and 7.4 MHz. The unit fits inside the PC chassis and is 100 percent compatible with 8087-2 numeric coprocessors. The Fast88 without an external control module is \$129 (\$149 with V-20 option) and \$149 with the external control module (\$169 for the V-20 cpu). **Circle #254 on reader service card for more information.**

MONITORS

Analog RGB monitors have become a staple in the CAD/CAE environs, and have a like appeal for desktop publishing, due to their crisp display of both graphics and text. Now, **Amdek Corporation** (2201 Lively Boulevard, Elk Grove Village, IL - 60007 * 312/364-1180) has decided to lower its price on its highest resolution analog RGB color monitor. Their Amdek Color 730 PGA-compatible Analog RGB Monitor, originally \$1,049, is now available for \$899. The unit can display 256 colors at a time, selected from a palette of 4,096 colors. The monitor has a non-glare etched glass CRT that presents up to 720 by 480 (HxV) resolution. The monitor's high 25 MHz bandwidth and 0.31 mm dot pitch provide extremely sharp, steady graphics and text (up to 25 lines by up to 80 characters per line). **Circle #255 on reader service card for more information.**

Another company has also decided to lower the cost of their monitor line. This is **Tatung Company of America, Inc.** (2850 El Presidio Street, Long Beach, CA - 90810 * 213/637-2105) who have lowered all of their prices an average of 8 percent on all of their monochrome and color monitors. The company's latest offering is the IBM-compatible CM-1365, which is now being sold at \$549, down from



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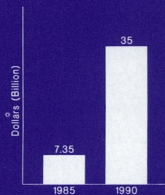
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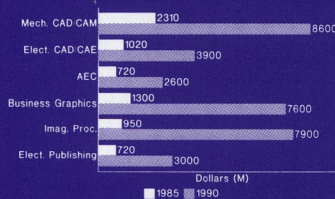
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\$595. This monitor has five position switching of screen displays: green, amber, color, paper white and reverse blue. Another pricing now in effect is for the MM-1422 (monochrome) \$249 for the amber screen, \$215 for the green screen. **Circle #256 on reader service card for more information.**

FAX OF LIFE

From **Cable & Wireless Carterfone** (1341 West Mockingbird Lane, West Tower, Dallas, TX - 75247 * 214/630-9700) comes the first in their family of PC oriented data and facsimile devices. Their new product is REACHFAX, a hardware and software combination that allows PC users to send and receive Group III facsimile from any Group III fax machine or similarly equipped PC. The software is based on the Carterfone PC Reach Communication software that allows the user to select, via menus, the type of message to be sent (data or fax) and the desired method of sending. Also provided the user with this software is an applications manager, a dialing director, error protect protocols and data modem controller from 300 to 19.2 kbps. The list price of REACHFAX is \$1,195. **Circle #257 on reader service card for more information.**

A truly portable fax machine has debuted from **Medbar Enterprises, Inc.** (71-08 51st Avenue, Woodside, NY - 11377 * 718/335-0404). Their Port-A-Fax is compatible with all Group II and Group III facsimile machines and is powered by an internal, rechargeable NiCad battery. Weighing only 7.5 pounds, the unit measures 16 by 8.5 by 4 inches and is small enough to keep in a desk drawer. For phone connection, the Medbar fax uses a high-quality acoustic coupler secured with a durable elastic strap which attaches quickly to any telephone handset, with no electrical connections required. Port-A-Fax transmits data from company letterhead,

onionskin, damaged originals, and documents of any size up to 8.5 by 11.6 inches. Sending or receiving standard-size pages takes about three minutes. Pages are received on 8.2 by 11.6 sheets of electro-sensitive paper at a resolution of 100 lines per inch. The unit comes with a battery charger, a cigarette lighter adapter and AC power supply. The unit has a suggested retail price of \$1,495. **Circle #258 on reader service card for more information.**

FONTING IT

Commercially-available soft fonts are a delight to use. But what about those occasions when you need something special, a font or symbol you've dreamed up and wish to use in your application program that can utilize soft fonts and print to your H-P Laser-Jet Plus or compatible printer? **Computer EdiType Systems** (509 Cathedral Parkway, Suite 10A, New York, NY - 10025 * 212/222-8148) has a marvelous solution for such needs. This is their new MagicFont program that gives you the chance to work out your own designs. With your own word processing program, you can create symbols on the fly by just "filling in the blanks". MagicFont converts user-created symbols into downloadable fonts and requires your word processor generate ASCII files. No graphics card or color monitor is required. (\$59). **Circle #259 on reader service card for more information.**

Microsoft Windows certainly seems to be one of the hottest operating environments for desktop publishing. But once you have Windows, how about the fonts themselves? Where are they going to come from? **Bitstream, Inc.** (215 First Street, Cambridge, MA - 02142 * 617/497-6222) has announced Fontware for Windows. To be released in the Spring of '87, each PC Fontware package will be released in 20 different typefaces. Each typeface will feature four

styles: roman, italic, bold and bold italic. Each package will contain 5-1/4 inch floppy disks that feature both the font installation program and one typeface family. Characters on your screen will match the characters to be printed on the page, which is true WYSIWYG capability. Fontware is written in "C" and provide character scaling and rotation facilities for production of a full range of typographic sizes. PC Fontware for Windows is compatible with an ever-growing list of D-3 products: Aldus PageMaker, Windows Write, Windows Paint, micrografx In*A*Vision, Hercules Graphics Card, EGA, PGA, Datamate Genius, Moniterm Viking, Wyse WY700, Hewlett Packard LaserJet Plus, Epson and the Apple LaserWriter. **Circle #260 on reader service card for more information.**

Data Transforms (616 Washington Street, Denver, CO - 80203 * 303/832-1501), the producer of Fontrix and Printrix, has a new release -- Fontpak Laser Volume 1. The Fontpak Laser series is designed to bring larger point sizes to laser printers and high resolution dot matrix printers. These fonts can also be used on any printer that is supported by Printrix and Fontrix. Volume 1 contains 30 new fonts, with five different type styles represented. Each typestyle is graduate in six sizes, ranging from 30 to 80 pixels. If your printer's resolution is lower than 300 dpi, the fonts will print proportionately larger. For example, a 24-pin Toshiba printer, with 200 dpi resolution, will print the fonts 1-1/2 times the size of a 300 dpi printing. The price is \$50. **Circle #261 on reader service card for more information.**

LASER PRINTERS

An extremely fast, 15 page per minute (ppm) laser printer has been introduced by **Talaris Systems, Inc.** (5160 Carroll Canyon Road, P.O. Box 261580, San Diego, CA - 92126 * 619/587-0787). This is their Talaris 1500, a unit that features 21 standard fonts and a dual page

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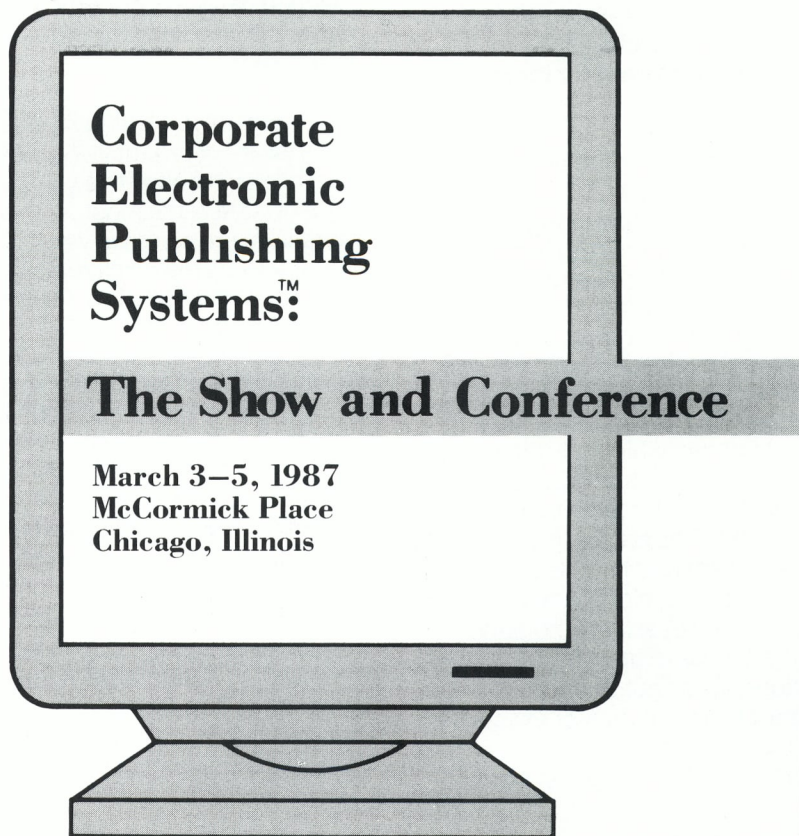
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buffer in the print controller. The printer has a resolution of 300 dpi and a full-page bit map controller for formatting complex graphics images and text at full resolution. The controller uses the QUIC programming language and is equipped with 3.5 MB of RAM and a Motorola 68000 for formatting complex pages before printing. The 1500 is based on the Ricoh LP4150 and has two 250-sheet paper trays and a 500-sheet, face-down output tray. The printer produces its first page in less than 12 seconds and prints subsequent pages every 4 seconds. The printer is available with a variety of interfaces, including RS232C, Dataproducts parallel and IBM 3274A. (\$11,990). **Circle #262 on reader service card for more information.**

Two new laser printers have debuted from **Xerox Corporation** (Rochester, NY), both additions to the 4045 Laser CP model. The first is the 4045 Model 50, which features more memory (512 K) and is specifically designed for desktop publishing and complex graphic printing jobs. The second new offering is the 4045 Model 20, designed for connection to IBM mainframes via cluster controllers. The pricing is \$6,495 and \$4,995, respectively. **Circle #263 on reader service card for more information.**

Ziyad, Inc. (100 Ford Road, Denville, NJ - 07834 * 201/627-7600) was among the first companies to launch an automatic paper and envelope feeder for laser printers. That was two years ago. Now, they've not only introduced a new, dual bin feeder, but have also lowered their pricing on other models. The PaperJet 400/DSF Sheet Feeder, which will retail for \$1,295, is an electronic paper feeder that sits directly underneath the printer. The feeder uses about the same amount of table space as the laser printer alone would require. The user has automatic online access to up to three types of stationery, can automatically feed monarch-sized paper for executive correspondence, and can intersperse different paper sizes

and types throughout a document as needed. The unit also quadruples paper capacity from 100 to 450 sheets of stationery. Retail pricing for the Ziyad PaperJet 400 for the Hewlett Packard LaserJet, Hewlett Packard LaserJet PLUS and Canon LBP-8 A-1 and A-2 laser printers has been reduced to \$1,495 from \$1,895. Quantity-one pricing for their DSF-8 feeder for the Wang LPS8 Laser Printer was reduced to \$1,695, down from \$1,895. **Circle #264 on reader service card for more information.**

OTHER PRINTERS

Many of us utilize nine-pin dot matrix printers to accomplish hardcopy creation of our documents. In this regard, **Epson America Inc.** (2780 Lomita Boulevard, Torrance, CA - 90505 * 213/539-9140) has reduced the pricing on their EX-1000 printer from \$995 to \$899. This is a wide carriage, nine-pin printer that offers a draft speed of 300 cps (at 12 cpi) and also possesses a user-installable color option as well as an eight button typestyle selection panel. **Circle #265 on reader service card for more information**

We are also continually being made aware of products that have been released earlier this year. Certainly one of the most impressive products we've investigated is the Pixelmaster printer from **Howtek, Inc.** (21 Park Avenue, Hudson, NH - 03051 * 603/882-5200) which offers high quality black text production at 30 seconds per page as well as brilliant color graphics and images at four minutes per page. This is the first ink-jet printer that produces near-offset-quality (NOQ) text in both black and color. It is a floor model unit that has a resolution of 240 by 240 dpi in full color on any standard office paper. The unit is based on the Thermo-Jet ink-jet technology, developed by and proprietary to Howtek. This process combines a new printhead

technology with specially designed ink jets and patented solid plastic inks. This means the problems associated with the water- or oil-carrier inks are eliminated, such as clogged ink jets and smudging or bleeding on the paper. No evaporation is required with this technology, as the plastic ink is melted in the Pixelmaster from a crayon-like solid rod, which allows the ink to be jetted as a liquid that solidifies instantly on contact with the paper. Images can be printed in over 250,000 shades of color! There is a selection of user-installable, plug-in Protocol Interface Cards (PICs) that allow for interfacing with most computer systems. Some of the initial PICs include CGI (VDI), being developed by Graphic Software Systems of Portland, OR; HP-PCL LaserJet emulation; and Diablo 630 and HPGL emulation. Interfaces include RS232C, Centronics parallel, Ethernet and SCSI. The suggested retail price is \$2,995. **Circle #266 on reader service card for more information.**

SCANNERS

From **Datacopy** (Mountain View, CA) comes word of price cuts for their family of scanners, as well as offerings on new software kits to enhance operation of their product line. First of all, the Datacopy Model 220 JetReader scanner is now priced at \$1,300, while their flatbed Model 730 scanner is now priced at \$1,800. The WIPS (Word Image Processing System) Kit, which includes the WIPS Editor, the interface board for the PC, cables and user manual, is \$695. The Optical Character Recognition Plus software is now \$695, and incorporates the company's OCR software product as well as the OCR Plus' typeface recognition software. The OCR Plus kit also includes the PC interface and manual. For current registered owners of the OCR software, an upgrade to OCR Plus is available for \$300. Two other new kits will also be debuting from Datacopy. The first is their Publisher's Paintbrush Kit at \$595,

which will include ZSoft's Publisher's Paintbrush program, the interface, cables and manual. The second new offering is the PC Image Kit, which includes PC Paintbrush Plus, cables and manual, for \$695. Now you can choose your own "bundle", as Datacopy has unbundled the software from the hardware, and at the same time reduced its retail pricing on their offerings. **Circle #267 on reader service card for more information.**

The lowest price scanner has debuted from **Epson America, Inc.** (2780 Lomita Boulevard, Torrance, CA - 90505 * 213/539-9140) for use with PCs and three Epson printers. Called the Epson Image Scanner Option Kit, the list price is \$300, and is an optional accessory for the Epson EX-800, EX-1000 and LQ-2500 dot matrix printers. The scanner reads and converts hard copy images such as photographs, logos, maps, clip art and other text or graphic documents into bit image data. The images are then transmitted through a serial interface to a host computer for storage. You can then manipulate the images and integrate them into your documents using the bundled INSET from American Programmer's Guild. The kit includes the scanner mechanism, an identity cartridge, a disk containing Epson's scanner utility and INSET software and a user's manual. Installation is accomplished by simply removing the ribbon cartridge from the printer and inserting the scanner into the printhead carriage. Resolutions of 180 by 180 dpi on the LQ-2500 and 144 by 144 dpi on the EX-series printers are supported. A page of graphics can be scanned or digitized at 27 inches per second on the LQ-2500 and 25 inches per second on the EX-series. **Circle #268 on reader service card for more information.**

A scanner from **Howtek Inc.** (21 Park Avenue, Hudson, NH - 03051 * 603/882-5200) supports both full color and black and white image scanning. Their flatbed Scanmaster uses multiple cpu's to

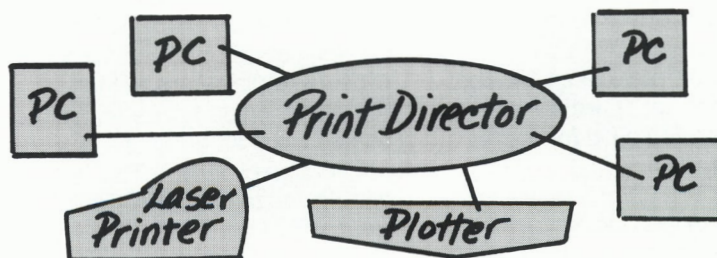
perform image and color enhancement, windowing and zoom functions without disrupting the host system's speed. The Scanmaster can add or subtract primary colors, or emphasize light or dark areas, under command from the host computer. This permits for color balance correction and enhancements. Correction tables are calculated via a program based in the host computer, which in turn generates custom look-up tables, which can be downloaded directly into the Scanmaster. Areas from 1/25th of an inch to full 11-inch by 17-inch documents can be scanned, thanks to the unit's windowing function. Aspect ratios of the area being scanned can be specified by the user through the unit's zoom function. Employing a single CCD sensor and a unique single pass RGB color separation method, the Scanmaster scans full color and black and white images or color transparencies at 75, 100, 150 or 300 dpi. Three filtered fluorescent red, green and blue

lamps sequentially pulse on and off to provide stable color scanning. Analog to digital conversion is done in terms of 8-bit data and assures 6-bit accuracy. Hardware configurations supported include IBM PC Bus, VMEbus, Multibus and DEC Q-Bus and Unibus. The end user price is \$5,995. **Circle #269 on reader service card for more information.**

GRAPHICS SOFTWARE

Now from **Broderbund Software Inc.** (17 Paul Drive, San Rafael, CA - 94903-2101 * 415/479-1170) is their all-seasons Graphics Library: Holiday Edition for IBM micros and compatibles. This is a collection of new graphics, fonts and borders to be used with Broderbund's The Print Shop to create a variety of documents. The Holiday Edition includes over 100

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Brand new from **Lifetree Software Inc.** (411 Pacific Street, Monterey, CA - 93940 * 408/373-4718 is their Color Magic package. Color influences your screen display readability, and this program allows you to substitute your screen display colors. You can use the included palettes as they are, or you may create as many as 48 color combinations of your own. Not only can you choose your own color scheme, but you can change them quickly and easily to respond to differing lighting conditions or even your mood. (\$39.95) **Circle #271 on reader service card for more information.**

Shipping now are Lotus Freelance Maps from **Lotus Development Corporation** (55 Cambridge Parkway, Cambridge, MA - 02142 * 617/577-8500). This collection of maps are for use with the company's Freelance Plus package. There are five individual sets: Continents and Countries; U.S. Counties; U.S. 3-Digit Zip Codes; U.S. Major Cities and MSAs (Metropolitan Statistical Area); and the U.S. Complete Set which includes all of the mentioned sets plus Congressional Districts. (\$395 for the U.S. Complete Set, \$145 for each individual set.) **Circle #272 on reader service card for more information.**

The Windows Clip Art Collection has been enhanced by **Micrografx** (1820 North Greenville Ave., Richardson, TX - 75081 * 214/234-1769). The new release, Windows Clip Art Collection Version 1.1, improves the quality and quantity of the symbols available to users. There are now over 500 art-quality images from which a user can select and, effective January 1, 1987, the collection will be packaged with the company's Windows Draw. Each image was hand-crafted by professional artists and the collection consists of five diskettes of symbol libraries and artistic images. The images are

compatible with Aldus' PC Pagemaker, Micrografx's Windows Draw and In*A*Vision, Microsoft's Windows Write and Notepad and Palantir's Filer database program. Through Windows Draw, they are also compatible with any Windows application that supports the metafile format. The Clip Art images are object-based rather than pixel-based, and thus are device independent. These images can be output at the maximum resolution of a device, such as 300 dpi on the HP LaserJet Plus and the Apple LaserWriter, or up to 2540 dpi on an Allied Linotype laser typesetter. As an added bonus, a "How To" guide for using the clip art with Windows applications is included. The collection is priced at \$99.95 separately from Windows Draw. Additional libraries will be released periodically by the company. **Circle #273 on reader service card for more information.**

Exciting news from **PC Quick-Art, Inc.** (394 South Milledge Ave., Suite 200, Athens, GA - 30606 * 1/800-523-1796). They have developed conversion routines for graphics files that encompass ALL major graphics products in the MS/PCDOS environment. All of those headaches concerning the importation of PC Paintbrush files into Dr. Halo DPE format can now be eliminated, once and for all. First of all, PC Quick-Art is going to bundle, absolutely free, with all of their PC Clip Art albums a one way conversion program. This will enable you to export PC Paintbrush files to: PC Paint Plus, GEM Paint, Microsoft Windows Paint, EGA Paint, Dr. Halo, and BLOAD format (the basic file structure that can be read by the likes of Printrix and Fontrix and IBM Storyboard). Now for the REAL tantalizing news -- for less than \$50, the company will be releasing this month a bi-directional file conversion program. That's right, you can take ANY image from the listed formats and convert that image to ANY of the listed formats. Plus, the bi-directional conversions will also convert IBM to Macintosh (MacPaint) and Macintosh to IBM graphics files. According to Mark Fisher, Director of Marketing, "What

looks good on the Macintosh looks unbelievable on the IBM". He is referring to the importation of 72 dpi Mac graphics imported to an IBM readable file format at 300 dpi!!! Look for an in-depth review of this highly utilitarian product in our next issue. The company has also introduced their latest clip art volume, U.S. & World Maps. The volume includes an impressive array of states that have been divided into counties. Each volume is only \$59.95. The company is also nearing release of their Volume II of U.S. & World Maps, which will contain overlays that can be used in conjunction with this current volume. Also, the company is planning to debut at COMDEX/Spring the first CDROM volume of clip art. The CDROM volume will have the capacity to hold up to 50,000 clips of 300 dpi, high quality artwork. The company currently has over 40,000 pieces of commercial quality artwork available. All artwork is stored in 300 dpi files and this clip art is shipped on 1.2 MB disks as a preference, thereby requiring an AT or compatible to read the files. The company is also providing, at no additional charge, their PC Quick-Art utility conversion program that allows the end user to convert clip files to any file format necessary to load clips into any desktop publishing or editing program on the market. **Circle #274 on reader service card for more information.**

WORD PROCESSING

Lotus Development Corp. (Cambridge, MA) has announced that they have initiated shipments of their Manuscript program. Manuscript is a word and document processor for technical professionals, with which you can create documents as large as up to 800 pages, according to the company. This word processing program can incorporate spreadsheets, graphs and databases from Lotus 1-2-3 and

Symphony, and images from Lotus' Freelance Plus graphics package. The program can also incorporate equations and mathematical symbols, as well as picture and diagrams from leading desktop scanners. Hmmm, sounds pretty versatile. Manuscript also includes advanced table handling, a built-in structured outliner, global indexing and footnoting, spelling checking, a document comparisons feature that highlights revisions, and a document preview capability. The program supports a variety of dot matrix, letter quality and laser printers. The price is \$495. **Circle #275 on reader service card for more information.**

WordStar Professional has been professionally improved! That's right, the classic word processing program from **MicroPro International** (33 San Pablo Avenue, San Rafael, CA 94903 * 415/499-1200) has debuted WordStar Professional, Release 4. Over 125 changes have been made to the program, including: support for multiple printers that come preinstalled in the program; assign two different printer ports; support for variable character width and variable line height; proportional spacing; sheet feeder support; a 220,000 word synonym thesaurus, an improved CorrectStar with 87,000 word dictionary; and an indexing program. There's a lot more to WordStar Professional 4.0, such as ShortHand, the program's macro capability, and concurrent merge-printing. This could well be the WordStar users' answer to even more functionality in the desktop publishing environment. **Circle #276 on reader service card for more information.**

If you are a dedicated user of Lotus 1-2-3, and hate leaving your program to initiate a document using a word processor, perhaps **Turner Hall Publishing** (10201 Torre Avenue, Cupertino, CA - 95014 * 408/253-9607) has a solution for you. Their 4WORD program is The Add-In Word Processor for Louts 1-2-3 and allows you to create, edit and print documents of combined text and

graphics without ever leaving 1-2-3. 4WORD features word wrap, automatic text justification, move, copy, search and replace functions, centered text, boldfacing, underlining and italic. 4WORD installs directly into 1-2-3 and becomes part of the product temporarily, or permanently, as you wish. Once installed, the program is activated with a single key from within 1-2-3. You can easily move back and forth between the spreadsheet and the word processor. There is also a "hot links" function that allows cells from the 1-2-3 spreadsheet to be copied into your document. And, because 4WORD shares resources with 1-2-3, the program requires less than 45 K of RAM. The program is priced at \$99.95 and will ship on February 20, 1987. **Circle #277 on reader service card dor more information.**

Freebies that are bundled with powerful programs entice consumers to the store shelves

searching for that productivity bargain. Such is bound to be the case, now that **MicroPro International Corporation** (33 San Pablo Avenue, San Rafael, CA - 94903 * 415/499-1200) is bundling a free copy of Word Finder from Microlytics, Inc. (East Rochester, NY) with WordStar 2000 and WordStar 2000 Plus. Word Finder normally carries a suggested retail price of \$79.95. **Circle #290 on reader service card for more information.**

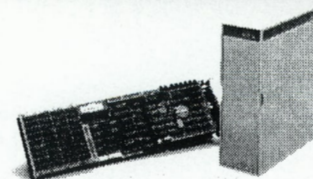
Previously not associated with the professional enviroons of MS/PCDOS is **Timeworks** (444 Lake Cook Road, Deerfield, IL - 60015 * 312/948-9200) who have officially released four new software programs for IBM micros and compatibles. Of most interest to us is their Word Writer PC, a word processing system that includes a built-in, 90,000 word spell checker as well as an integrated thesaurus with over 60,000 synonyms and alternatives. Additionally, the

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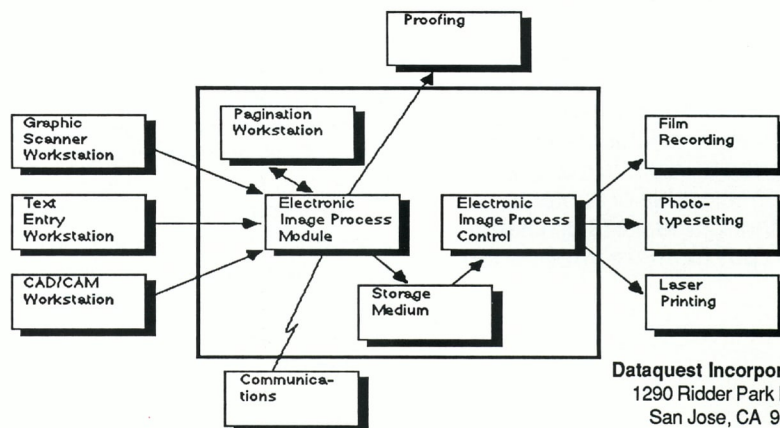
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product features an integrated outliner, a personal dictionary, onscreen highlighting, superscript and subscript as well as italics, headers and footers and a built-in calculator, all for only \$59.95. The programs carry a money-back guarantee. Another program that could be of interest to desktop publishing users is their Partner PC, a RAM resident desktop accessory program that includes ten organizational tools ranging from an appointment calendar and scheduler to a notepad and a typewriter function — also \$59.95. **Circle #278 on reader service card for more information.**

One of the most highly touted, professional word processors has always been an offering from **XyQuest, Inc.** (3 Loomis Street, Bedford, MA - 01730 * 617/275-4439). Their program has been XyWrite II. Now, the company is releasing XyWrite III, version 3.1. This program now has more organizational tools that allow hard disk user to organize their files in a central location, as well as offering tools that enable the user to maximize the use of their hard disk subsystem. There is a Long Directory command for identifying the contents of a file, and the program's indexing function has been improved. You can also specify the sorting order of your index. Multiple fonts for laser printers are supported, and you can vary the line spacing according to the capabilities of the printer you're using. There's an Extra Leading command, and these following enhancements: Append, Copy and Rename, Backwards and Forwards Referencing, Hard Date and Time, Optional Non-Blinking Cursor, and Footnotes. You can also have up to six columns per printed page, and the program now offers mail merge and automatic table of contents generation. **Circle #279 on reader service card for more information.**

ETCETERA

A self-described online network for desktop publishers has been announced by a company called **Alphabet Soup Inc.** (2822 Van Ness Avenue, San Francisco, CA - 94109 * 415/885-3156). This telecommunication service is called DesigNet allows you to send, via modem, electronic files for typesetting, laserprinting and plotting. The company also has libraries of ready-to-use graphics, type fonts, software and support services available. PostScript laser printers provide the output capabilities. Network access will be available 24 hours per day, seven days a week, with a typical job turnaround of 24 hours from the time the job file is received. Transmission speeds from 1200 to 9600 baud are supported, fully error checked. **Circle #280 on reader service card for more information.**

The ability to translate files from one word processor to another is becoming more and more important in desktop publishing work. From **Blueberry Software** (7203 Bodega Avenue, Sebastopol, CA - 95472 * 707/829-5443) comes their Series 1 and Series 2 products, multiple file translation programs that allow the conversion of native files from 15 popular word processors to ASCII, while preserving font changes and other formatting in the form of easily-replaced psuedocode. A 20 K text file takes about 15 seconds to process. The Series 2 product also includes some new modules: SWAP, DUMP, TOGGLE, and two other utilities as well as SPLITFILES, which allows you to split large files into smaller files. The pricing is \$125 and \$200, respectively. The company has also released the Magna Edition (\$250) for users of MagnaType from Magna Computer Systems. **Circle #281 on reader service card for more information.**

The all-important I/O device that use to manipulate your D-3

programs can range from the computer keyboard itself, to a mouse, trackball or a lightpen. Now, from **IMSI** (1299 Fourth Street, San Rafael, CA - 94901 * 415/454-7101) comes a new mouse named the EconoMouse. According to the company, this offering is completely compatible with software that supports the Microsoft Mouse. EconoMouse is also bundled with its own pop-up menus and plugs into your computer's RS232C serial port. The EconoMouse is manufactured by Kraft Systems and is a private label from IMSI. **Circle #282 on reader service card for more information.**

Static can zap your best files into oblivion. From **Ohm Electronics** (746 Vermont Street, Palatine, IL - 60067 * 800/323-2727) comes an answer to static suicide. This is their Scooter Model STP10 Anti-Static Touch Pad, a small (2-3/8" by 3-3/4" by 3/8") pad that mounts to any equipment or work surface with a pressure sensitive backing. The fully conductive front surface connects to 10 feet of cord that terminates with a banana plug and/or alligator clip for connection to any adjacent ground. You simply touch the black conductive pad before operating your equipment for positive grounding between yourself and your machine. (\$12.95) **Circle #283 on reader service card for more information.**

Four new products from **INMAC** (2465 Augustine Drive, Santa Clara, CA - 95054 * 408/727-1970) are of particular interest to aiding your D-3 productivity. Two new offerings are keyboards, and two new paper grades have also been introduced by this company. The first offering is The Professional Keyboard, whose keys have easy-to-read legends instead of confusing symbols. A removable template for the function keys helps you to remember important commands, with LED indicators on all of the unit's locking keys letting you know what function is currently in operation. The numeric keypad also has an enter key. The Professional Keyboard is plug-compatible with all IBM micros

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TIPS & TECHNIQUES

and the AT&T 6300 PC. Pricing is \$270 for the IBM AT and \$255 for the other mentioned computer models.

The second new item is Inmac's Touch Pad Keyboard. In its Function Mode, you can program up to 36 areas on the pad and 70 characters per function key. To execute a command such as "print" or "find and replace", you simply touch the pad once. Inmac includes Lotus 1-2-3, WordStar, DOS overlays and blank overlays that you can customize to fit your needs. For quick action, you use the pads Cursor Mode, and movement of your finger across the pad is converted into cursor key strokes. In Mouse Mode, your finger can speed through menu selection. Switch to Graphics Mode when using your favorite graphics programs, and use your finger or a stylus on the pad to draw on the screen. This unit is plug compatible with IBM micros (\$395).

The new paper products from Inmac include Laser Printer Paper that has a smoother surface for clearer, sharper printing. The 20# weight paper's surface is static free and is priced at \$35.95 per carton containing 5000 sheets. The second paper product is the company's 20# Satin Edge Ink-Jet Paper that is chemically treated so ink dries as soon as it touches the paper. This prevents the blurring and smudging common with other papers. Each carton, priced at \$39.95, contains 2,500 continuous, pin-fed sheets of micro-perfed paper. **Circle #284 on reader service card for more information.**

PRD+ is a keyboard/macro enhancement program that increases your typing/data entry by enabling "shorthand" forms of frequently used text. From **Productivity Software International, Inc.** (1220 Broadway, New York, NY - 10001 * 212/967-8666), this program generates up to 240 characters, or about four lines of text, everytime a "shorthand" abbreviation of eight characters or less is entered via the keyboard. The company has now reduced this program from \$195 to a price of only \$68. PRD+ is RAM resident and requires only 64 K of

memory for its own operation. The program doesn't require that you enter macros via the command/function key combo, either. Instead, the keyboard buffer is scanned everytime you depress the spacebar or a punctuation key -- if an abbreviation is recognized, the desired text is automatically inserted. **Circle #285 on reader service card for more information.**

Document conversion is also the prime product from **Systems Compatibility Corporation** (One East Wacker Drive, Chicago, IL - 60601 * 312/329-0700), who have announced their Software Bridge, version 2.0. This new version allows file conversions between nine popular word processing packages: Displaywrite 3, Microsoft Word, MultiMate, Samna, Volkswriter, Wang PC, WordMARC, WordPerfect and WordStar. Converted documents retain the function and format codes which are normally deleted by ASCII transfers. An editable, mirror-image document is produced that is fully compatible with the target package specified. The program is menu-driven and allows for the processing of as many as 99 documents automatically. (\$149). **Circle #286 on reader service card for more information.**

For users of Xerox Ventura Publisher, a users group has been formed. Named **Ventura Publisher Users Group (VPUG)**, the organization was started due to a need for an independent group to support Ventura Publisher users. VPUG is a national organization devoted to passing along information on and about Ventura Software. They publish a monthly newsletter and this packed with useful Ventura Publisher information, and a forum is planned on CompuServe as well. There is a \$24 annual membership fee. Information can be obtained by writing to: Xerox Ventura Publisher User's Group 675 Jarvis Drive Morgan Hill, CA 95037. **Circle #287 on reader service card for more information.**

Show time again -- one of the latest conference/tradeshows worthy of note is the A/E/C Systems '87. This assembly focuses on computer graphics; other computer and management systems; reprographics; and topics of interest for design and construction professionals, such as architects, engineers, contractors and facility managers/owners. Attendance is expected to be 22,000. For more information, please contact: **SYSTEMS '87** P.O. Box 11318 Newington, CT 06111 203/666-6097. **Circle #288 on reader service card for more information.**

Dataquest Incorporated (1290 Ridder Park Drive, San Jose, CA - 95131-2398) is going to hold a Display Terminal, Graphics Industry and Imaging Conference at the San Diego Hilton Resort, May 20 through May 22, 1987. This conference will feature discussions by industry experts and Dataquest analysts on targeting future markets, and on industry trends, issues, challenges and opportunities. The conference is open to decision makers in the display terminals, imaging and graphics industries, as well as to members of the financial community. For further information, call Dataquest at 408/971-9000. **Circle #289 on reader service card for more information. \$**



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Circle 222 on reader service card

Some bad news for the little Mac

Introducing Desktop Publisher for your PC and PC compatibles

For some time now a certain computer, which was named after a fruit, has been enjoying a pretty much unchallenged position when it came to page composition software.

Well, Spellbinder has some bad news for them, and some good news for PC users.

Spellbinder Desktop Publisher is the most powerful and flexible page composition software on the market today. And it runs on the IBM PCs and workalikes. Which means a lot of personal computer owners will be able to do a lot more with their computers.

We added page composition to our already superior word processing software. It's all in one program so there's no more switching disks or working with clumsy file conversions. The result is page composition like you've never seen it before!

Take a look at these features. Desktop Publisher:

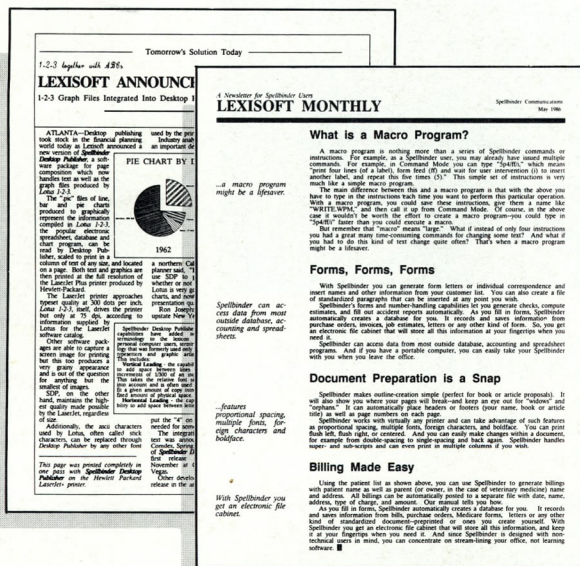
- runs on IBM PCs and PC workalikes.
- imports scanned images digitized on a Datacopy scanner and graphics from PC Paintbrush and Lotus 1-2-3, then harnesses the laser printer's 300 dpi printing resolution.
- makes page formatting quick and easy using style sheets provided in the program.
- gives a professional look to any document with true proportional spacing, hyphenation, leading, kerning and right justified margins.
- zooms in for a close up on detail or zooms out to display a full page layout on screen. What you see is literally what you get.
- features Spellbinder's powerful and easy to use word processing.

With features like these, it's no wonder people are flocking to Desktop Publisher. You get a finished copy within seconds rather than waiting days going the traditional route. There are no more unnecessary hold-ups while typesetters correct mistakes. Better yet, printing high-quality material, using Desktop Publisher will cost pennies compared to the many dollars a professional would charge.

In short, we've taken more than a bite out of the competition. We've eaten them alive.

Spellbinder Desktop Publisher
How do you like them apples, Mac?

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Spellbinder

DESKTOP PUBLISHER



Circle 226 on reader service card

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