

# COMPUTERLAND

magazine

Sales force  
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MARCH 1992 U.S. \$3  
VOLUME 7 NO. 3



PORTABLE COMPUTERS — REMOTE CONTROL SOFTWARE



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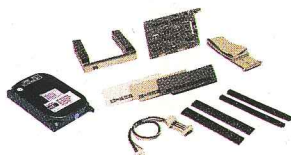
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Of the 106 printers *PC Magazine* tested,  
only one was able to produce this document.



It'll be at least twelve months before another printer can show you this kind of output.

Because only one printer—the new IBM® LaserPrinter 10—earned this year's *PC Magazine* Award for Technical Excellence. Only one printer met the demanding criteria for “advancing the industry's lot” and “redefining the state of the art” that define this prestigious award.

*PC Magazine* also singled out the fast, sharp IBM LaserPrinter 10 for an Editors' Choice award, citing “the fastest PostScript® graphics we've ever seen from a desktop laser printer,” and praising its high-resolution, optional “true 600-dpi output—no marketing double-speak or technical gimmickry.” They also described

it as “bristling with paper-handling options.”

And value? The IBM LaserPrinter 10 “equals the LaserJet III... on list price, and moves ahead on... resolution, speed, and paper handling.”

High praise indeed, especially for a new product from a company less than a year old: Lexmark International, created from a business unit of IBM to develop, manufacture and distribute IBM personal printers, typewriters, keyboards and related supplies.

For your nearest dealer, call 1 800 IBM-2468, ext. 804 (in Canada, 1 800 465-1234), and see the award-winning IBM LaserPrinter 10. One printer that's at least a year ahead of the pack.

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*Developer, manufacturer and distributor of IBM LaserPrinters.*

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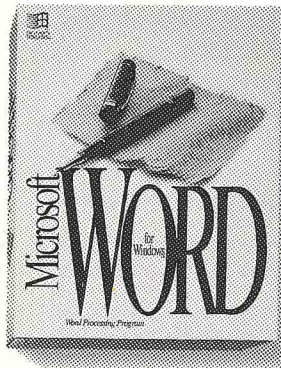
**THE NEW IBM LASERPRINTERS. PAGES AHEAD.**



# WordPerfect users prefer Microsoft Word for Windows.

## **NSTL TEST RESULTS, DECEMBER 1991**

	Word for Windows	WordPerfect for Windows
Preferred to use	79%	21%
Easier to learn	71%	21%
Easier to use	83%	13%
Would purchase	79%	21%



In a recent test conducted by the National Software Testing Labs, nearly 8 out of 10 users of WordPerfect for DOS preferred Microsoft Word for Windows<sup>®</sup> 2.0. Which didn't surprise us. Especially when they discovered how fast Word let them accomplish

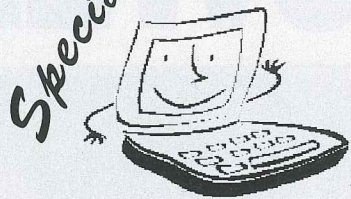
everyday tasks. And how easy an upgrade to learn and use Word was than even WordPerfect for Windows. To take advantage of our \$129 upgrade offer,\* simply call (800) 323-3577, DPT. V22. We'll also send you the files you need to test Word yourself. If you're not satisfied, we'll refund your purchase in full.\*\*

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\*Offer good for current licensees of WordPerfect, MultiMate, WordStar, MS Word for MS-DOS, and DisplayWrite. Please allow 2-4 weeks for delivery upon receipt of order by Microsoft. Offer expires 6/30/92. Limit one per customer. Reseller prices may vary. Call for system requirements. \*\*If you're not satisfied with Word for any reason, return the product to Microsoft within 90 days with proof of purchase for a full refund. Offer good only in the 50 United States. To receive only the NSTL test results: In the United States, call (800) 832-8043, ext. 24. For information only: In Canada, call (800) 563-9048; outside the U.S. and Canada, call (206) 936-8661. © 1992 Microsoft Corporation. All rights reserved. Printed in the USA. Microsoft, MS, and MS-DOS are registered trademarks and Windows is a trademark of Microsoft Corporation. WordPerfect is a registered trademark of WordPerfect Corp.



# Special Sales Force Automation Issue



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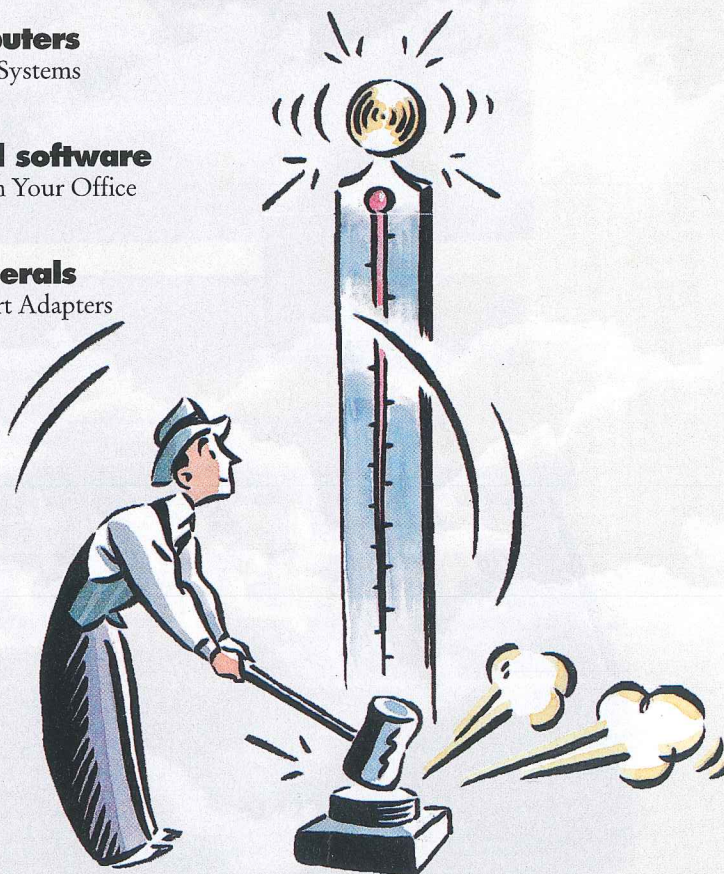
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**14**  
Implementing  
SFA





# THE MOST POWER





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Behold the new Toshiba T4400SX notebook—the first 486SX computer to offer all the power and performance of a desktop computer while freeing you from the tyranny of the nearest electrical outlet.

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You can use our credit card-sized memory modules to expand standard 2MB RAM to 10MB for added speed and multi-tasking capabilities.

The T4400SX is the only notebook computer that offers a high-speed Gas Plasma screen, which means no mouse blur. And its 100:1 contrast ratio delivers seven times the contrast of a typical LCD display.

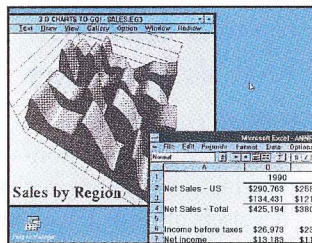
Or if you prefer, you can choose our 9.5" diagonal LCD display, the most state-of-the-art LCD available, with uncompromising clarity from the black and white ultra thin screen.

Both offer a 640 x 480 VGA high-resolution display as well as the graphic versatility of 16 gray scales for the gas plasma screen and 64 gray scales for the LCD screen.

For familiarity and ease of use, the T4400SX has a full-function keyboard with standard size keys and key spacing.

The Nickel Cadmium battery provides more than three hours of computing power. Our AutoResume feature allows you to shut down and start up precisely where you left off.

And for added expandability and connectivity, there are built-in parallel, serial, video, keypad/board, mouse and bus expansion ports. There's even



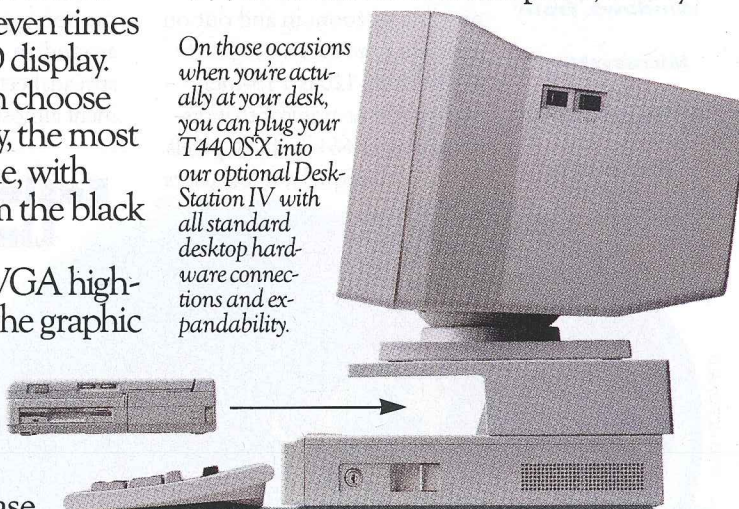
If you choose the 9.5" diagonal LCD display, you get the versatility of 64 gray scales as well as high-resolution 640 x 480 VGA on the black and white ultra thin screen.

a dedicated modem slot for an optional internal cellular-ready, 9600 bps fax or standard modem.

All that in an ultra-strong 11.7" W x 8.3" D x 2.2" H carbon fiber-reinforced case weighing only 7.25 lbs that fits into half a briefcase.

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On those occasions when you're actually at your desk, you can plug your T4400SX into our optional Desk-Station IV with all standard desktop hardware connections and expandability.



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# NEW PRODUCTS

## Zoom Lenses For Windows

**MAGic is a \$79 program that can double the size of any VGA image. It works with both DOS and Windows. From Microsystems Software, (508) 626-8511.**

**W**indows is a great working environment, but it has sent more than a few users off in search of new glasses. With a standard VGA display, it delivers legible text, but not the work area you need to run multiple applications. A higher-resolution monitor, on the other hand, gives you more Windows elbow room, but makes text and icons appear much smaller.

Don't call your optometrist yet—for the first time, it's now possible to zoom in and out on any Windows screen. Sigma's MultiMode 120 is a 19-inch monochrome monitor that displays up to 1,664 by 1,200 pixels.

Uniquely, it lets users

switch between several different resolutions while running Windows. Thus, if and when your eyes tire, you can magnify your work area at the touch of a button. Price, including the required ISA controller card, is \$2,490.

If you already have a machine with a standard VGA adapter, you can try Aristosoft's \$99 *MoreWindows*. Without reducing the size of Windows icons or text, this software driver makes your monitor act as a window on a much larger virtual screen—total work area can be up to 1,024 by 1,024 pixels. Since the entire area is cached in video memory, you can zoom or pan around an enormous Excel spreadsheet or full-page document almost instantaneously.

## Easier LAN Links

**N**etwork administrators have learned to dread it: installing LAN interface cards in PCs already stuffed with other boards.

This task usually means a lengthy trial-and-error search for interrupt settings and I/O addresses that will work.

Saving old documentation helps; so do a power-operated screwdriver and a good

sense of humor. However, Intel recently came up with an even better solution—its **EtherExpress LAN adapters**. Starting at just \$199, these switchless 16- and 32-bit cards come with software that queries the host machine, runs diagnostics and automatically determines compatible settings.

What could be easier? Well, by using a parallel port LAN adapter, you could duck out of opening that PC entirely. While external adapters used to be slow, they can now transfer up to 2MB/sec, thanks to Enhanced Parallel Port (EPP) technology introduced jointly by Intel, Zenith and Xircom. Xircom's \$595 **External Ethernet Adapter** works with thin coax, 10BASE-T or an external transceiver; it even comes with preconfigured drivers for NetWare, VINES and other LAN operating systems. With an EPP-capable machine such as Zenith's **MastersPort 386SLe**, this hassle-free external adapter works about as fast as an internal 8-bit board would.

## Multimedia Documentation

**M**any people think of multimedia as an esoteric technology that is still in the theoretical stages, and which will have little relevance to ordinary business applications. *Au contraire*—multimedia is here today, and it's set to





# Fiction

## SPACE ALIENS MARRY IN LAS VEGAS



LAS VEGAS, NEV. — Recently discovered aliens from planet X were married Jan. 7, 1992. The bride and groom both wore green. The aliens drew

a large crowd of well wishers for the festive occasion. The newlyweds

# Fact

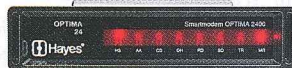
## HAYES OPTIMA PANICS COMPETITION

by Gary Lancaster

The incredible quality and low cost of the OPTIMA line of modems deserves a five-star rating. With superior design and loaded with features, the OPTIMA series has the competition run-

Superior Design and Materials. Hayes Legendary Quality and Reliability. Including Hayes Improved Escape Sequence with Guard Time and the Hayes Standard AT Command Set so there is no question about compatibility. Have it all with OPTIMA™ modems from Hayes at highly competitive prices.

Loaded with Error Control and Data Compression from V.42bis down to MNP5. With Automatic Speed and Feature Negotiation so you never have to worry about changing settings. Plus Digital Signal Processing to get the most out of our telephone line. Includes free Smartcom EZ® software that helps you get communicating right out of the box. Separate fact from fiction and you'll find Hayes OPTIMA to be more modem for your money.

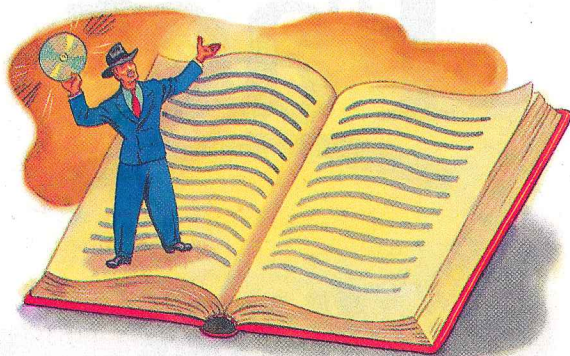


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**Multimedia documentation is designed to get read—and it doesn't require programs to come on 22 floppy disks.**

become the dominant means of distributing and documenting programs you use every day.

Take Microsoft's *Works for Windows Multimedia Edition*. While it offers the same functionality as the existing *Works for Windows*, it comes with dramatically enhanced online tutorial and reference sections. Its 42 tutorial lessons employ multimedia movies, featuring both sound and animation. And the online reference has a more extensive index, plus step-by-step procedural instructions. The result is that users can boot up the program and teach themselves how to use it in less time than it would take to learn from a human instructor.

Delivered on a single CD, *Works for Windows Multimedia Edition* costs the same—\$199—as its predecessor. To run the program, you'll need a computer with an MPC-compatible CD-ROM drive and sound board.

If you like the idea of doing without old-fashioned, book-based documentation, but you're not quite ready to upgrade your computer, you'll be interested in an agreement signed by Larson-Davis Information Systems. The company plans to publish 24 popular Osborne/McGraw-Hill computer books in an electronic format any DOS PC can use.

Called *Books On-Line*, the series will offer the full text of the original books compressed onto ordinary floppy disks. You can copy the text onto your hard disk, then, read it on screen in its entirety, or search for information using the supplied *Static InfoQue* text retrieval program. First to be issued: Tom Sheldon's *Novell NetWare 386*, priced at \$49.95. Larson-Davis is at (801) 375-8855.

## PostScript Speed

Desktop publishers swear by *PostScript* for its flexibility, but swear at it for its sloth. Now, Adobe Systems has announced three new products that promise to give *PostScript* a real kick in the pants.

The first is *Adobe Type Manager for Windows (ATM)*, now available in version 2.0. On a 386 or 486 computer, *ATM* now uses 32-bit processor instructions, making *PostScript* typefaces appear on screen up to twice as fast. The price is \$99, or \$20 as an upgrade for existing users.

The second, available first for Mac users, is Adobe's new *Multiple Master* typefaces. These are *PostScript* typefaces whose size, width, weight and style can be varied from within your software applications. Thus, they can replace a whole family of faces you'd otherwise have to install and download. The first *Multiple Master* offerings are *Minion* (\$470) and *Myriad* (\$370).

Finally, Adobe has also announced the *Type 1 coprocessor*,

a chip it has been selling to laser printer manufacturers. When they come on the market in a few months, printers using this chip should be able to run at close to their full rated engine speed even while processing complex *PostScript* pages.

## Low Cost True Color

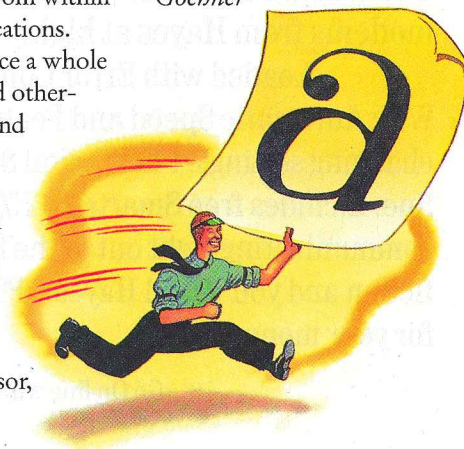
With the advent of low-cost color inkjet printers from Hewlett-Packard and Kodak Diconix, printing true-color images is now within the reach of every budget. However, viewing those same images on a computer screen in the first place is not so affordable.

Media Cybernetics thinks it has the answer. The company's new *HALO Desktop Imager* is a \$139 *Windows* program that edits and prints 24-bit graphics. What's special about it is a proprietary color rendering technique called *M-Color*.

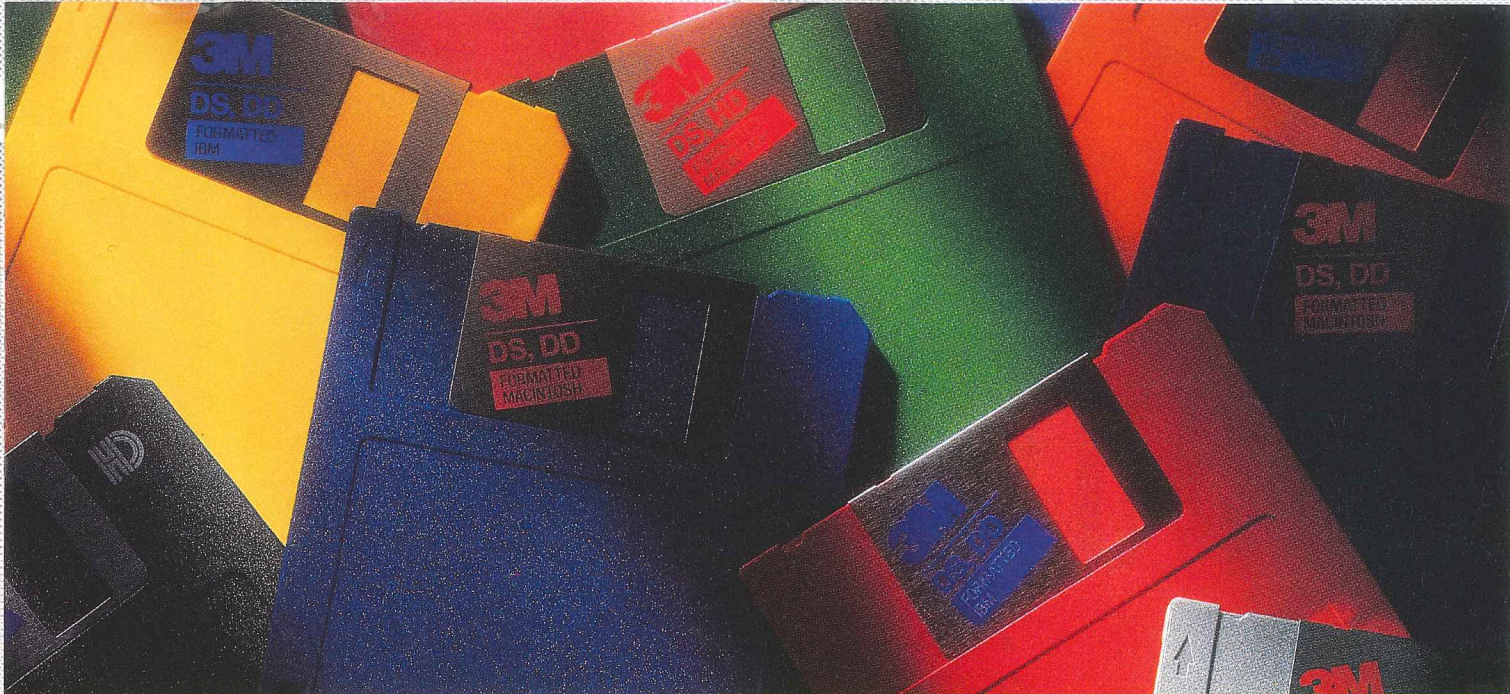
Unlike the "dithering" used in other programs, *M-Color* is claimed to preserve most of an image's color integrity, even when displayed using a VGA monitor.

Call Media Cybernetics at (301) 495-3305.

Contributors: Jon Angel, Ken Goehner







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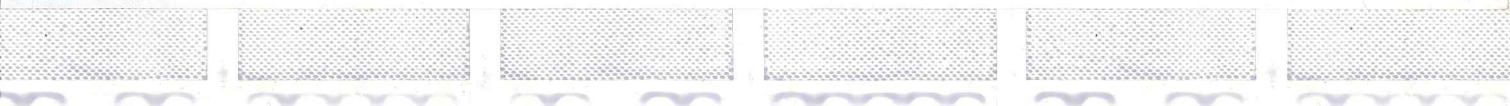
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# SALES FORCE AUTOMATION

## *The Sales Rep's Competitive Edge*



he image of the sales rep on the road—rushing from customer to customer and then back to the office, spending hours in the car and at pay phones, always relaying information from one place to the other—is fast receding into memory. Replacing it is a picture of the sales person of today who, equipped with a notebook computer and special software, has immediate access to the latest company information. Whether it's sales history, product or pricing updates, inventory or order information, the result is that the salesperson can be more responsive to the customer's questions and needs. Furthermore, orders can be entered on the spot, and sales closed in far less time and with much greater ease than previously. The overall result, according to a recent survey reported by the *Harvard Business Review*, is a sales staff that is 10 to 30 percent more productive.

The technology that turns a notebook computer into a potent sales tool is called Sales Force Automation, or SFA. While many different software packages are available, three main components are generally included in an SFA package:

**Connectivity tools** give sales representatives online access to corporate computer

resources (databases, networks) via ordinary telephone lines. They speed the log-in procedure and include flexible query and report generation utilities. With these, the sales rep rarely has to tell a client, "I'll have to get back to you with an answer to that."

**Communications tools**, particularly corporate E-mail, keep the travelling sales rep up-to-date on new product specs, pricing changes, corporate policies, colleagues' schedules and directives from management. E-mail also allows sales managers to keep in close touch with widely-scattered teams.

**Productivity tools**, including software for scheduling, contact management, forecasting and expense reporting, as well as such office standards as spreadsheets, word processing and personal databases, keep paperwork to a minimum and maximize the rep's time with customers.

Although the communications and productivity components of SFA have been used by sales organizations for some years now, it is the addition of connectivity tools that has enhanced customer responsiveness so significantly. They allow sales reps to customize products and services on the spot, they provide up-to-date inventory information and pricing formulas, and many packages

*By Harry Dent/Illustrations by Dennis Irwin*





allow reps to communicate orders directly to a production or distribution facility, thereby speeding delivery and reducing the likelihood of error.

What has made SFA so successful and popular today are advances in several key technologies. The availability of powerful, lightweight notebook computers at reasonable prices has been a major factor. Another is the increasing ease of connectivity with corporate databases and networks, facilitated by new technologies such as client/server networks. The third is the development of a variety of flexible, customizable software solutions from many different vendors.

The real impetus behind SFA has been a tough business climate that increasingly stresses customer service and customization as a way to gain the competitive edge. The key to providing effective customer service is building close, focused relationships between customers and the front-line sales and service employees who deal with them directly. To achieve this goal, employees

need to be freed from routine tasks to concentrate on understanding their customers' needs—and meeting them.

Unlike many of today's computer applications, Sales Force Automation is a transformative technology. Its goal, like that of the personal computer revolution itself, is to empower individuals and reduce bureaucratic obstacles within an organization. In the case of SFA, that means putting information at the fingertips of salespeople so they can solve customer problems instantly and flexibly, without home-office bureaucratic delays. Furthermore, when the sales force has software tools that reduce paperwork and bureaucracy, staff and administrative resources can be allocated to other areas.

The wide range of software now available means that virtually any company, regardless of size or industry, can consider SFA. Off-the-shelf





## BENEFITS OF SALES FORCE AUTOMATION

- 1) Provides greater knowledge of customers and their needs. SFA enables reps to use corporate databases to get to know their customers better. The ability to access and analyze information on past purchasing patterns for specific customers and for particular products allows better targeting and servicing of the customer.
- 2) Allows immediate response to customer inquiries. On-the-spot access to information on inventory, production scheduling, product changes and pricing formulas makes sales contacts more productive. The customer gets better service, while sales reps can close sales faster and complete more orders.
- 3) Reduces cost through eliminating staff and paperwork functions. SFA can lower certain operational expenses by building some order processing and clerical functions directly into the software. Examples include automatic credit limit checks, credit approval, inventory, pricing and discounting.
- 4) Reduces delivery lead times. Because a salesperson can transmit approved orders directly to a production or distribution facility, the sales cycle is shortened, and paperwork, mail costs, delays and order input are greatly reduced.
- 5) Increases the percentage of time salespeople spend selling. By eliminating unnecessary trips back to the office for information, sales staff can better schedule their time and efforts, thereby allowing them more time for direct customer contact. Equally important are lower turnover and higher job satisfaction, which result from higher earnings and more rewarding customer interaction.
- 6) Cuts training time. User-friendly access to company and customer data allows new sales personnel to learn about the company and the customers more rapidly.
- 7) Reduces the impact of staff turnover. Continuity of service increases customer loyalty. Because customer records and history generated by SFA software are retained on electronic databases rather than paper files, they are more easily passed on to the next salesperson.
- 8) Allows better and more timely reports to management at all levels. Realtime data gathered through various tasks the staff perform make it simpler to track performance, gauge customer satisfaction and spot new trends.
- 9) Offers better integration of customer, marketing and management information systems. SFA permits a company to leverage investments it has already made in centralized computing equipment, databases and relevant software.

programs that are easy to learn and use, partially customizable by the end user, and relatively low-priced, are available for small companies. This type of software emphasizes the personal productivity and contact management aspects of SFA, and usually omits the connectivity component, which requires considerable customization. *ACT!*, from Contact Software International, in Carrollton, Texas, is one of the more popular general-purpose packages in this category. Scherrer Resources Inc., in Philadelphia, offers industry-specific programs for such fields as general sales, retail security, brokerage, real estate and insurance.

Midsized companies with sales forces of 20 to 150 reps and a need for online data access typically adopt standard packages that are customized for them by the vendor, who also offers assistance in

implementation and training. This approach is more costly than acquiring off-the-shelf software, but often is the best way to give mobile sales reps access to the corporate data they need.

SNAP Software in Manchester, New Hampshire, is one of many vendors offering customizable packages. It targets financial services, insurance and hi-tech companies, as well as other companies with long, complex sales cycles. Other companies with similar programs include Field Integration Technologies in San Jose, California, Sales and Marketing Systems in Vienna, Virginia, and Eighty/20 Software in Roseville, Minnesota.

Large companies with 100 to 1,500 salespeople sometimes use customizable systems—but often have such complex, specialized needs that only custom-written systems will work. Build-





ing an SFA system from the ground up ensures that the particular needs of the sales force will be met, and that the package will be compatible with the company's networks and mainframe databases. The development process can be costly and lengthy; it usually involves a thorough analysis of the company's sales practices, information systems and management style.

A number of software firms specialize in providing large sales forces with custom software design, implementation consulting, training and database management services. Sales Technologies, of Atlanta, for example, manages database and communications functions for clients through a centralized service bureau. Envoy Systems, of Waltham, Massachusetts, focuses on vertical applications in the petrochemical, consumer and apparel industries, while Modatech, in Vancouver, British Columbia, focuses on consumer and retail industries (apparel, publishing, consumer packaged goods). General Electric Information

Services in Rockville, Maryland, and Andersen Consulting in Chicago are two other companies providing high-end proprietary systems to large corporate customers.

In some industries, SFA is already a proven tool. Companies with complex or customized products and long selling cycles have been among the first to adopt it, with penetration heaviest in such industries as chemicals, petroleum products, pharmaceuticals, consumer packaged goods, apparel, publishing, real estate, insurance and financial services. The diversity of software now available for an even wider range of industries is a sign that Sales Force Automation is a technology whose time has come. □

*Harry Dent is a business writer and management consultant living in Moss Beach, California, whose new book The Greatest Boom in History, will be published this fall by Hyperion.*





by David Freedman

# IMPLEMENTING SFA

**t**his year, businesses around the world are expected to spend \$1 billion on software to automate sales and marketing operations, a 33 percent rise over last year's investment. Sales Force Automation (SFA) is already a line item on the 1992 budgets of nearly half of all large companies, according to CSC Index in Cambridge, Massachusetts, and it promises to be one of the hot information technology fields of the coming decade.

The SFA trend is driven by the expectation of a 10 to 30 percent increase in the productivity of the sales organization. Experience has shown, however, that achieving the full benefit of SFA depends on careful, step-by-step implementation.

The main challenge to successful implementation is that SFA targets customer relationships, an area where old habits are hard to change. Executives understand that any tweaking of sales operations has an immediate impact on the corporate bottom line, which makes them reluctant to fix anything that isn't broken. Sales reps are concerned that the new system may interfere with their relationships with customers. Moreover, they tend to be very independent, and have spent years developing their own selling style.

At the same time, many companies strive to become more competitive by increasing the sales reps' efficiency and encouraging greater responsive-

## What works (and what doesn't)

ness to customers' needs. Sales managers, MIS directors and company executives therefore need to take both the caution and enthusiasm into account when considering adopting Sales Force Automation.

We recently talked with a number of companies about their experiences automating their sales organizations, and we spoke with other experts in the field. What emerged from their responses was not a single, rigid formula for implementing SFA, but guidelines to help companies maximize the rewards of this promising technology while minimizing the risks. The following list is a synthesis of recommendations that they made.

### 1. Automate Selectively

Perhaps the most important piece of advice about SFA is to begin by thoroughly analyzing how your company actually operates, paying particular attention to the sales cycle, and then automating only those functions that will clearly and immediately benefit. Even if a competitor has successfully automated a specific function, that doesn't necessarily mean it's right for you.

"Most companies tend to overautomate," says Barton Goldenberg, President of Information Systems Marketing, a Washington, D.C., consulting firm specializing in sales and marketing automation. Goldenberg strongly recommends that managers get out into the field and spend time with the sales

illustrations by rollin mcgrail



force, seeing how they actually operate. Then decide which functions to automate.

That is what Allan Jackson, Computer Applications Supervisor at Ultraseal International Inc., did. The company, a Los Angeles-based automotive accessory manufacturer, decided it would be most beneficial to automate the telemarketing and sales management functions, while leaving the field sales force alone for the present time. "The automation capabilities we looked at weren't that compatible with the type of selling our field people currently do, which is mostly to large government accounts," explains Jackson. He notes, though, that the company's sales managers now travel with laptops, which gives them a foot in the door toward future field sales force automation.

Studying your company's business processes may possibly uncover problems or inefficiencies that automation is more likely to exacerbate than improve. "Sales automation isn't a substitute for effective processes, good management direction, a skilled sales force or a sound business strategy," says Goldenberg. "If you have the wrong people selling to the wrong customers, automation will make your problems worse because it will ingrain them."

Even if an existing manual process is working properly, it may be worthwhile to rethink it because automation can provide opportunities for new functions, notes Thomas Sample, Senior Vice President of MIS at Dallas-based Hagggar Apparel Co. When Hagggar automated its sales operations, with the help of GE Information Services, the company decided to change the way its salespeople analyzed their monthly sales. "Some of their routines were structured a particular way because the reps didn't have access to certain types of information," says Sample. "The new system didn't have those limitations." The ability to pull in data from the company's inventory system, for example, meant that orders could be analyzed in terms of product availability, thereby providing an important new insight.

## 2. Get the Sales Force to Buy in Early

"The problems companies encounter with sales force automation aren't technology problems, they're people problems," maintains John Mulholland, a Sales Force Automation expert at consulting firm Arthur D. Little Inc., in Cambridge, Massachusetts. If the sales force doesn't buy in and utilize the technology, the effort will fail.

Persuading the sales force to cooperate is a top priority for Joan Bircher, Manager of Sales Support Systems for 3M in St. Paul, Minnesota. "It's critical to have the sales rep involved up front in the project. The system has to be his, not mine, and not the information systems department's," she says. "We insist on working directly with the national sales manager, and he selects a group of reps to work with us designing the system. They tell us what should be in the system; that way they feel they have ownership of a system that fits their needs."

Even relatively little computer experience among the outbound sales staff needn't deter adoption of SFA. When Shell Oil Co.'s lubricant department embarked on a sales automation project, Staff Representative Jim Grose went out of his way to enlist the help of sales reps with no computer experience whatsoever. "If a system like this is going to be successful, every single salesperson has to use it on a regular basis," he explains. "We figured if we could get a system that they could live with, then we'd have a system that everyone could live with."

Because the sales field attracts independent personalities, Golden-



*Choose carefully which functions to automate*

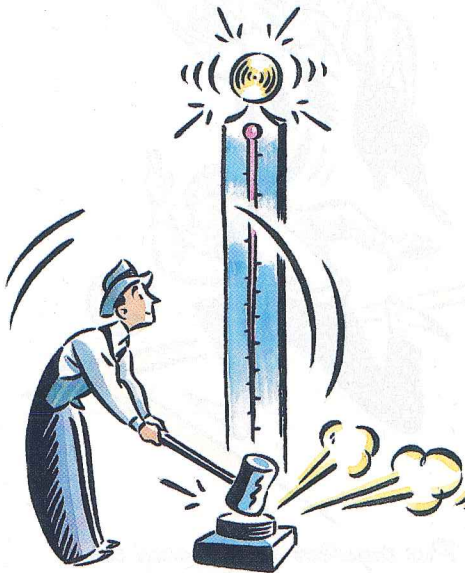


*Put together a planning team of diverse players*





*Select software that suits the needs of the sales force*



*Determine your own measure of success*

berg warns that there is the risk of alienating sales reps if they get the impression that the point of the system is to track their every move. "If you ask reps to send back too much information, they'll feel like you're spying on them," he says. "If that happens, they'll start plugging in wrong information, or even refuse to use the system."

### 3. SFA is a Team Effort

Sales reps aren't the only ones who need to be brought into the project. "Every group affected by the new system should be represented on the team that's going to scope out and design it," insists Shell's Grose. "You need their expertise, and by recognizing their expertise, you win their buy-in, which will keep them from throwing up barriers later on."

Grose brought together a wide range of people during the planning stages for his company's project:

- district sales managers ("If the manager doesn't insist that reps use the system, it won't be used");
- district analysts (they use the collected sales data);
- managers from the head sales office (to ensure that the system supports the company's strategic sales goals);
- MIS programmers, to provide time and cost estimates for the functions that others were requesting ("There were some things we would have dearly loved to include, but couldn't, because we saw early on that they were simply too costly");
- people familiar with the information systems (inventory tracking, order placement, credit approval) into which the sales automation system would tie;
- a representative from the company that was providing the sales automation software, (in this case, Envoy Systems Corp. of Waltham, Massachusetts).

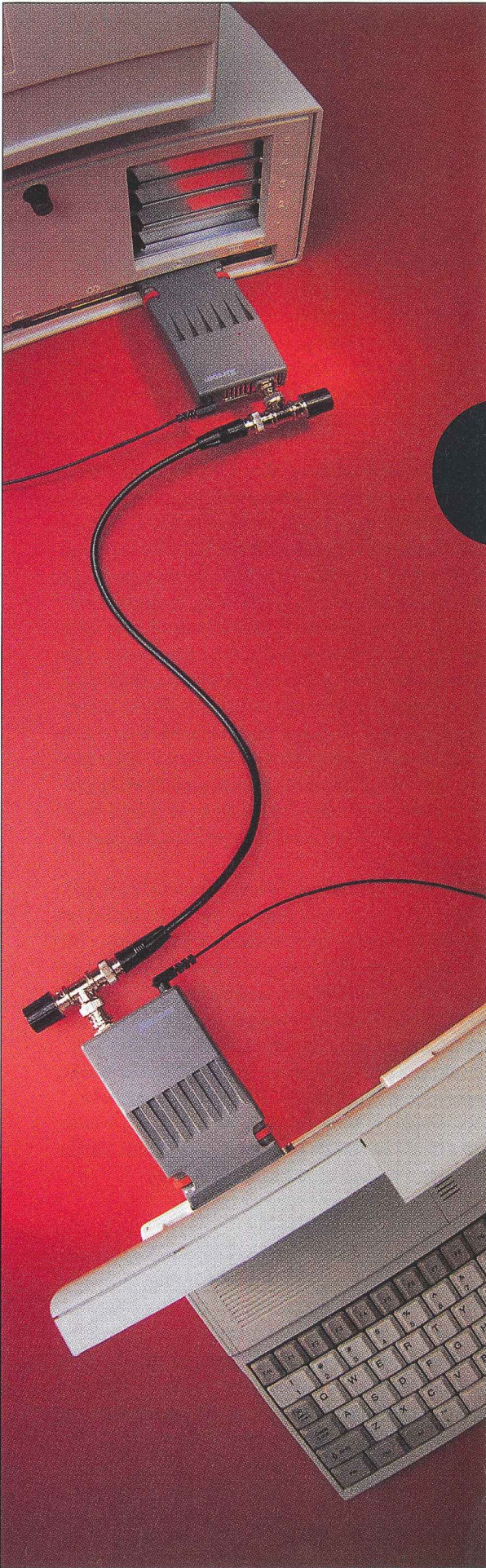
The only problem with such a large group, Grose found, was that he had far too many people to be able to conduct useful meetings. "Ten people is a team," he says. "More than ten is a mob." In addition, Grose found that salespeople and some managers simply didn't have the time to attend numerous meetings and review hundreds of pages of specifications.

His solution was to assemble a core team of only ten people to hammer out the details of the project. Key points of the technical specs were given to reps in summary form, so they could review them quickly. By occasionally holding meetings at various district offices, local reps and managers could be kept up to date. Everyone felt involved, yet it didn't take too much of their time.

Bircher of 3M points out that it's also crucial to obtain the sponsorship of a high-level manager, and to keep that manager actively interested in the project. "These systems are not inexpensive to implement," she says. "If you don't have a sponsor, the project's funding could be cut when times aren't good."

Because continuity of effort is essential to successful implementation, Arthur D. Little's Mulholland adds that the project team should not be disbanded as soon as the system is up and running. Rather, the team should continue to monitor the project's progress and make necessary modifications. "Sales Force Automation is a process, not a software program," he says. "This is something that changes the way you





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## What works (and what doesn't)

do business, that you live with."

Goldenberg believes that a team approach to implementing a sales automation system can have a positive effect on the company's overall organizational health. Working jointly toward a common goal provides an opportunity to improve communications among different corporate departments, such as marketing, order processing, shipping and manufacturing. "But you've got to make sure the system allows that sort of integration," he warns. "If it doesn't, the system will simply end up making the walls higher."

### 4. Choose Software to Suit Users, Not Organizations

Whether relying on an off-the-shelf software package, a customized third-party offering or an in-house design, companies need to make sure the software provides the sales force with the functionality and flexibility it needs. Most experts say that regardless of management's bottom-line goals, the user interface is the single most important element in an SFA project. Because salespeople spend most of their time on the road with customers rather than at desks, their experience with complex computer systems tends to be limited. Moreover, since they live on their commissions, salespeople would rather spend time selling than acquiring software expertise. "The reps' comfort with the system was key," says Haggar's Sample. To provide that comfort, Haggar had its reps experiment with early versions of the system and offer suggestions. The company got plenty. It found, for example, that reps were far more likely to use the system when screens resembled the manual forms they were used to filling out.

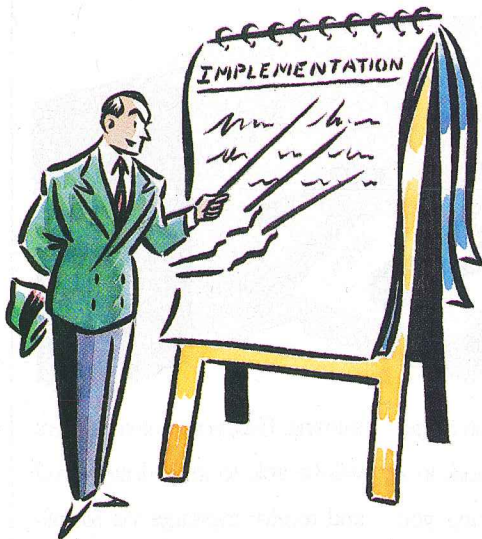
Flexibility is as important as ease of use. When Ultraseal was looking around for a package, it tried out demo versions from a number of vendors and discovered that most of them sorted contacts either by the contact's name or company. But Jackson wanted to sort and retrieve contacts according to type of facility and location. "The people at a military base or country garage change frequently, but the location of the base or garage doesn't," he explains. In addition, Jackson says that many packages provided space only for five or fewer key contacts per customer, but Ultraseal's large accounts often involved as many as ten contacts. After an exhaustive search, Jackson found that the package offered by San Francisco-based System Vision was flexible enough to meet Ultraseal's unique requirements.

### 5. Define Success Before Beginning

The only way to know how well SFA is working for your company is to define the terms for measuring the benefits before implementation even begins. Goldenberg notes that although many companies rely on sales revenues per rep as the ultimate indicator, there are many alternative measures. For example, a company might want to place a high value on the number of new accounts brought in. Sales rep responsiveness might be another key measure, possibly determined by the average time it takes to get sales literature and price quotes to a potential customer after initial contact has been made.

3M's Bircher notes, however, that hard dollar figures on a system's

*continued on page 43*



*Devote adequate resources to  
training and support*



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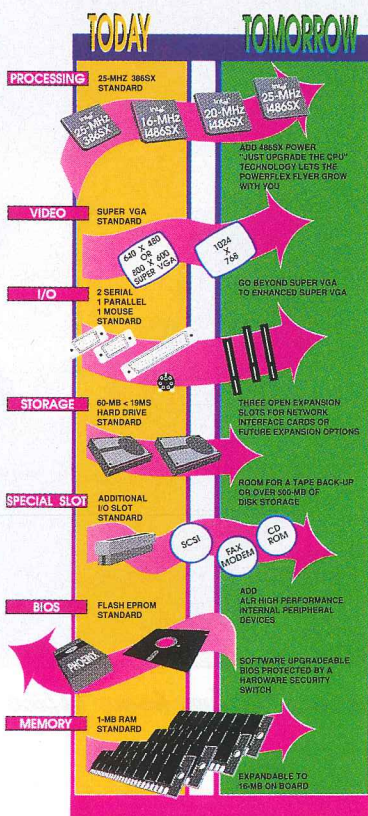
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For More Information Circle 551



*A Day in the Life...*

# SALES LOG

*With a Notebook Computer*

BY CONNIE PARRISH, PHOTOGRAPHY BY PEGGY PARKS

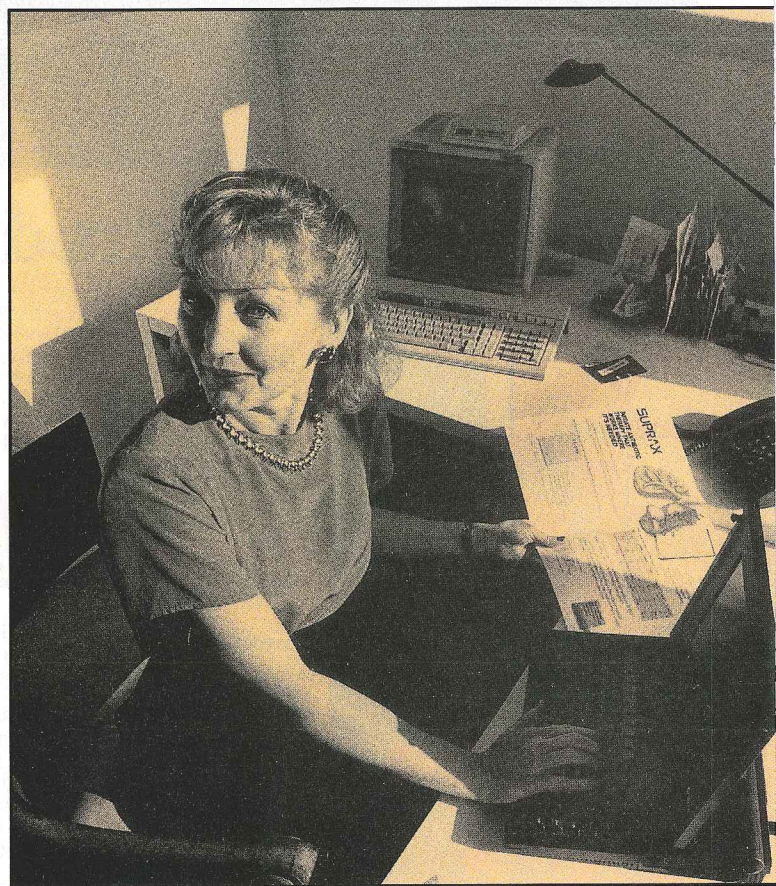
**S**ales Force Automation has had a particularly dramatic impact in the pharmaceuticals industry. To find out just how indispensable this new technology has become, we spent a day with sales rep Joanne Smith of Lederle Laboratories, who relies upon it from the moment she begins work until she logs off her computer in the evening. Her tools are a 386SX laptop computer, portable printer and customized software with mainframe access, E-mail, budgeting and notetaking functions.

*January 9, 1992, 7:30 a.m.*

Joanne Smith enters the office in her home in Santa Rosa, California, and turns on her laptop computer for the first—but certainly not the last—time that day.

The first task is to read the mail, which, in this case, is electronic mail she receives each business day from Lederle corporate headquarters in Wayne, New Jersey. It could be from another Lederle rep or a company message about a new product, a new sales program or a price change. Today, it's news that the Federal Drug Administration (FDA) has just approved the use of a Lederle product, HibTITER, a meningitis vaccine available for the first time for children as young as two months. Eventually this information will be included in the package insert, but for now, Smith prints out the update so she can get this information into the hands of pediatricians she will call upon during the course of the day.

Next, she checks her on-disk "Daily Planner" to see



*7:30 a.m.: In her home office*



what her appointments for the day are. Then she consults her database to find key doctors located in the territory she'll be covering, so she can also schedule sales calls with them, thereby making the most efficient use of her day.

**8:30 a.m.** Armed with her laptop, Smith takes the drug samples she'll need out of storage, then heads south for Long's drugstore in the Northgate Plaza in Terra Linda.

In the parking lot she plugs her laptop into the car's cigarette lighter and looks up the drugstore in her list of retail accounts for information she had logged in after her last visit. She finds that the pharmacy will have just completed inventory, and will therefore probably place a sizable order. Under "Notes," she sees that one of the pharmacists had said they would be needing additional quantities of acetaminophen with codeine, especially if they could get it at a good price.

**10:15 a.m.** Having finished taking the order at Long's, Smith heads for the nearest

phone booth. There, using a touch-tone phone, she places the order with Lederle's distribution center in Los Angeles by tapping in the relevant numbers. Because Lederle's SFA program has not yet been fully implemented, not all operations are automated. When they are, Smith will be able to place her orders directly through the laptop.

As it is well before 11 a.m., the first order will be sent out that day. For subsequent orders, however, she'll place them when she's back home, as those will be sent the following day.

**10:30 a.m.** Next stop is a nearby building where two pediatricians on the list have offices. From her "Notes," Smith learns that Dr. Liebman regularly prescribes an antibiotic called Suprax to treat ear infections. So she gives him a copy of a new clinical study on the drug and asks him if he needs more samples. Because he does, Smith has him sign a card for the FDA, indicating that he requested the specified samples and the quantities that were left. Whenever sales reps



*9:00 a.m.: At a pharmacy*



*12:00 p.m.: In between sales calls*









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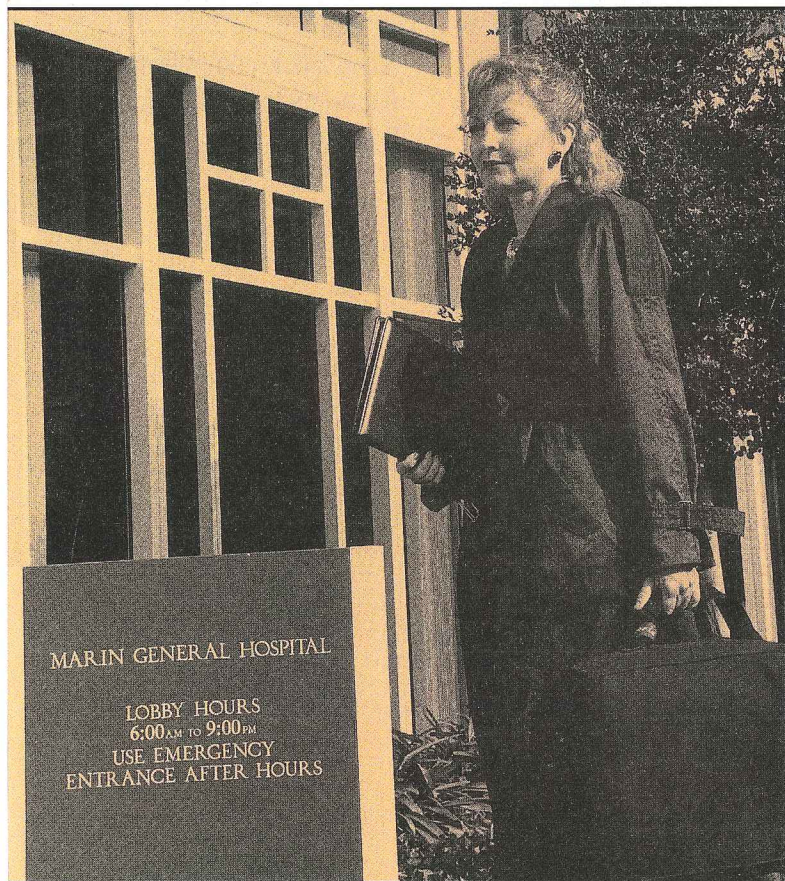
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leave samples of a prescription drug, they must get the doctor to sign this form. The need for these forms was in fact the impetus for many pharmaceutical companies to employ SFA technology, as it greatly simplifies and expedites the process. In pre-laptop days, Smith used a computer punch card whether or not she left any samples. As there was no place for notes, she put information in several notebooks. Smith finds it more reliable to store the FDA reporting information in her computer. She mails these cards out weekly, but stores all the information contained on them as part of her daily report.

**A**

t Dr. Goldberg's office, she leaves a copy of the updated information about HibTITER that she had printed out earlier. Since she knew from her "Notes" that Dr. Goldberg had previously asked if Suprax was effective against a certain kind of bacteria, she gives him a copy of a clinical study on that topic.



*4:00 p.m.: On to the next destination*

See page 45 for  
special videotape offer

*12 p.m.*

Back in her car, Smith opens her laptop and makes notes about the two calls she has just completed. Under Dr. Liebman, she types in the number of samples of Suprax she left and the number of the FDA call card. Under "Notes," she records that he liked the fact that children only need to take the antibiotic once a day.

Next, Smith heads for a dermatologist's office in the same building. She first checks the sample shelf and notices that the doctor is low on Minocin, an acne product. She finds out how much he needs, gets him to fill out the FDA call card, and delivers the samples. Again, she enters all relevant information into her laptop.

*2 p.m.*

After lunch she calls on an internist whose office is near Marin General Hospital. Having been reminded by her "Notes" that he uses a competitor's antibiotic for treating bronchitis, she gives him a copy of a clinical study on a Lederle product that proves effective in treating the illness. Because she's well prepared, she can make the best pitch in the few minutes she will have with this busy doctor.

Smith next stops in at a pharmacy in the same building to find out if they use a lot of Lederle products to fill prescriptions from the doctor she just visited. She also helps the pharmacist prepare a return order for drugs that have gone out of date so he can get credit. She fills out the necessary form and leaves it for the pharmacist, who will send back the drugs. There's no need to record this information in her laptop because the return will show up in her sales figures a month or so down the line.

*5 p.m.*

By this time, Smith has called on two pharmacies and taken an order at one of them. She's visited eight doctors' offices, taking orders for vaccines at three and leaving samples of Lederle products at six. Since she recorded all the information about each call as she went along, the daily report is complete by the time she makes her last visit.

*6 p.m.*

Smith returns home. After placing her orders over the phone, she hooks up her laptop to the telephone, and all the information about her day's calls are transferred to the main computer at the Wayne headquarters. At the same time, she sends an E-mail message to Lederle's medical education department with a question she couldn't answer from one of the doctors she had visited. The physicians in the department will reply directly to the doctor, something Smith is forbidden by FDA regulations to do. But with her laptop she can at least see that the question gets to the right party as soon as possible.

*Connie Parrish is a freelance writer based in the San Francisco Bay Area.*



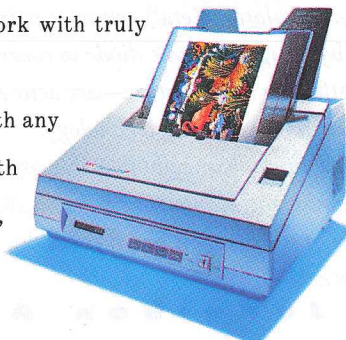


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# Into the Fast Lane

Running at 25 and 33MHz, the 1992 model portable computers combine high speed with great fuel economy.

Up to this point, portable computers have been like the Toyota Corollas of microcomputing—able to keep up with traffic and get the job done, but lacking the power and style of larger vehicles. Now, however, portables are moving into the fast lane. Like BMW 325s or Acura Vigors, they have remained compact, but now they can offer performance and luxury on a par with much larger machines.

Most important, 1992 model portables run faster. Instead of using the 16MHz processors—adequate, but hardly scintillating—commonly found in last year's notebook computers, today's machines feature 25 or 33MHz chips under the hood. They can run large software applications, crunch numbers and multitask just as well as any desktop computer. Windows, OS/2 or System 7? No problem.

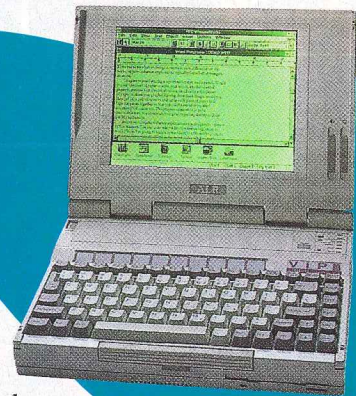
Another advantage of today's top portables is fuel economy. Because of their power-saving chip sets, and the ability to hibernate when you're not actually typing or accessing the disk drive, these machines can work longer on a single battery charge than most earlier models. With some, you'll be able to travel the corporate data highways for a whole day without having to find an AC outlet.

Finally, it used to be that you could get a portable computer's screen in any color you wanted—as long as it was black-and-white. Some new portables, however, are now available with eye-catching VGA-compatible color displays.

The most economical liquid crystal color displays use passive-matrix technology. Much like the screens on monochrome portables, these use only a single transistor to control each row or column of pixels, resulting in slight fading and blurring. Better are MIM (Metal Insulator Metal) active-matrix displays, which deliver a faster, sharper display by using a separate diode to control every single pixel. Most vibrant of all—but costliest to manufacture—are active-matrix displays based on rapid-acting TFT (Thin Film Transistor) technology.

In this Buyer's Guide, we look at eight portable computers that run at 25MHz or above. We'll also examine the Momenta: Though a 20MHz system, this machine is worthy of note as one of the first pen-based portables. Prices listed are manufacturers' suggested list prices.

by Jonathan Angel



ALR VIP M/486DX

PHOTOS BY BILL SCHWOB



# ane

## ALR

Many computer manufacturers now offer modular systems—PCs whose CPUs you can upgrade just by changing a circuit board. Unfortunately, this technology hasn't been available on portables—if you purchased a 286 or 386SX notebook last year, it's running as fast as it will ever go.

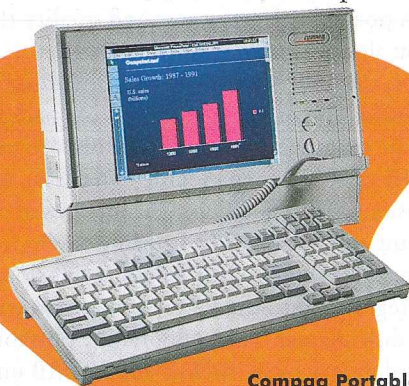
Now, ALR has done something about this situation. Its new VIP M series notebooks are the first portables with upgradeable processors: You can change a 386SX CPU to a 486SX or 486DX chip in about 30 seconds, just by opening a door above the keyboard and changing a credit-card-sized module.

All three models—386SX, 486SX and 486DX—share the same case. Carbon-fiber reinforced, it weighs just 7 pounds and measures only 11.75 by 8.5 by 2.25 inches. The VIP M's paper-white screen measures 9 inches diagonally, while its 82-key keyboard provides for comfortable typing.

Pictured is the VIP M/486DX, one of the fastest notebook computers in the world. Running at 25MHz, it uses a 486DX processor, complete with integrated math coprocessor. Standard RAM is a generous 4MB, expandable to 16MB. Despite its fast CPU, the VIP M/486DX runs for as long as three hours on a single, removable battery pack.

Like other state-of-the-art laptops, the VIP M/486DX comes with serial, parallel, mouse and VGA ports. Also included are an external keypad/keyboard port and an expansion base adapter. Unusual options include a SCSI adapter and a data compression module that can double available hard disk space. The machine even includes a QuikSnap port to which you can snap Microsoft's BallPoint Mouse (rather than having to clamp it on).

With an 80MB hard disk, its list price is \$4,795.



Compaq Portable 486c

## Apple

Apple's PowerBook 170 is the company's fastest notebook computer. A clear choice for committed Macintosh users, it's also a sensible option for those who haven't ever used a Mac before but want a graphical user interface on their notebook.

Third-party benchmarks have shown that programs such as *Excel*, *Word* and *PageMaker* perform better on a Mac than on a *Windows* machine when clock speeds are evenly matched.

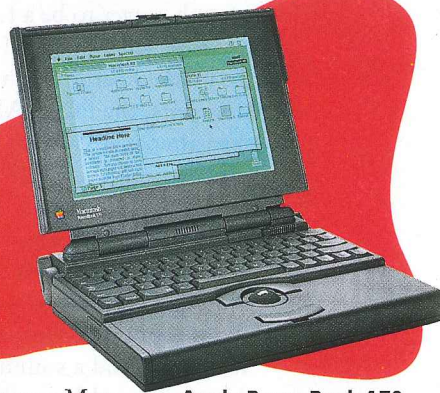
The PowerBook 170 has a 68030 processor running at 25MHz. It comes with 4MB of RAM, expandable to 8MB. Like other 32-bit Macs running under System 7, the PowerBook 170 can also use hard disk space as virtual memory.

Measuring just 9.3 by 11.3 by 2.3 inches, the PowerBook incorporates a LocalTalk printer/LAN connector, an Apple Desktop Bus port for an external keyboard and mouse, and an internal Fax/Data modem. Of course, Apple also includes a SCSI port—just the ticket for connecting external hard disks, scanners, CD-ROMs and other devices.

A light, replaceable battery provides up to three hours of continuous operation. Unlike any desktop Mac, the PowerBook 170 also has a sleep mode that lets you shut down the computer and resume work later—exactly where you left off.

The PowerBook 170 is the only monochrome notebook that includes an active-matrix display. This ensures that the cursor always remains visible. Another ergonomic innovation on this machine is the built-in palm rest, with integral trackball.

With a 40MB hard disk drive and 4MB of RAM, it costs \$4,599.



Apple PowerBook 170

## Compaq

Every day, battery-operated notebook computers are getting faster and better. However, there's no denying that, at any given point in time, the fastest-available portable computer is going to require AC power.

Ever since the days of its original sewing-machine-size portable, Compaq has stood for the state of the art in "luggables." Its new PORTABLE 486c is no exception: Featuring a 33MHz 386 pro-



cessor and a TFT active-matrix color screen, it's the tool you need if you're giving training and sales presentations or analyzing a LAN's performance.

Actually, this 16.7-pound portable would have enough power to be a LAN server if you wanted it to. With 4MB of RAM—expandable to 32MB on the motherboard—and two full-length EISA expansion slots, the PORTABLE 486c has more power than almost any desktop computer. Supplied with either a 120MB or 210MB hard drive, it's also compatible with Compaq's external storage module.

Compaq has teamed the brilliant flat-panel color display with its accelerated VGA controller, which provides 256-color support. Also included are an audio input jack and volume-controlled speaker. When you add a sound board, you'll have everything you need for multimedia presentations—the PORTABLE 486c even has a CD-ROM connector.

Unlike smaller portables, the Compaq has a full 101-key keyboard. Also provided are serial and parallel ports, plus connectors for an external keyboard, display and mouse.

A portable like this is likely to hold valuable data. Compaq has given it two different levels of password protection, plus a feature called DiskLock. DiskLock means that no one can ever read the information on your hard drive—even if they physically remove it and put it into another PORTABLE 486c. The list price is \$9,999.

**Epson** We predict that in a year or two, every notebook computer will be color—after all, monochrome VGA desktop PCs are available, but few businesses buy them any more. As of today, though, portable color is an expensive option.

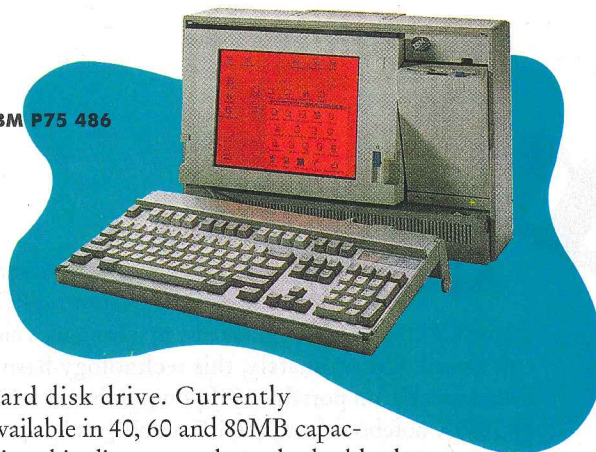
Epson's answer? A notebook you can buy with an affordable monochrome screen, then upgrade to color when it's within the reach of your budget.

The NB-SL/25's other money-saving feature is its removable



Epson NB-SL/25

IBM P75 486



hard disk drive. Currently available in 40, 60 and 80MB capacities, this slips out and can do double-duty with a desktop computer. Or, your company can buy several NB-SL/25s and share them over an entire department. Because each employee can keep his or her own hard disk, data is always secure.

Epson uses the 25MHz 386SL processor, teaming it with 64K of cache RAM. Not just a faster version of the 386SX, the 386SL uses less power and retains data even when you bring it to a standstill. Thus, the NB-SL/25 can run up to eight hours on a single battery charge. It can also go to sleep in the middle of any program—DOS, *Windows*, UNIX or OS/2—for up to a week without losing your work. Like some other notebook computers, the Epson weighs just 6.5 pounds (dimensions are 11.6 by 9.2 by 2 inches). It has a comfortable 82-key keyboard with above-average key travel.

Available soon, Epson's crisp MIM active-matrix color display will be a dealer-installable option. Though this uses more power than the standard monochrome LCD, it still permits up to three hours of operation. You'll appreciate the fact that the NB-SL/25 comes with two nickel-cadmium batteries; nickel-hydride cells are also available.

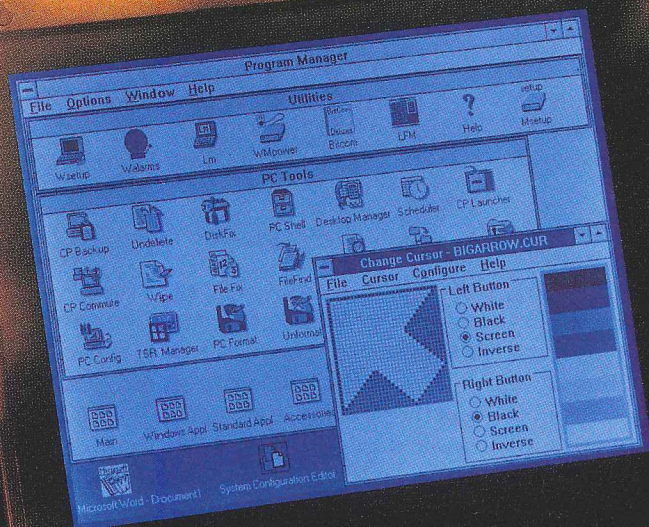
With a 40MB drive, the NB-SL/25 costs \$3,499.

**IBM** He who laughs last, laughs best. Bear that in mind as you heft IBM's 22-pound PS/2 Model P75 486. While the P75's bulk might amuse onlookers in these days of color notebooks, this portable offers power and quality that will put you ahead of your competitors.

In effect, the P75 is a top-of-the-line desktop machine stuffed into a 12.1 by 18.3 by 6.1 package with a handle on top. It includes a 33MHz 486 processor, 8MB of RAM (expandable to 16MB), and four expansion slots. The Micro Channel bus in this machine runs at a fast 20MHz; it includes two full-length 32-bit slots and two half-length 16-bit slots.

Also integrated into the P75 is a bus-mastering SCSI hard disk adapter. This supports the portable's internal hard disk drives—160MB and 400MB units that have average access times well under 20ms—





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*For More Information Circle 560*

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and also allows connecting as many as six external SCSI devices (hard drives, CD-ROMs, scanners, etc).

The P75's rapid XGA graphics circuitry supports its plasma screen at a resolution of 640 by 480 pixels. If you connect an external monitor, XGA automatically detects the screen's capabilities and adjusts itself for resolutions as high as 1,024 by 768.

Unlike the other portables in this Buyer's Guide, the P75 has a 101-key keyboard that's basically identical to that of a desktop computer.

The P75's most unusual feature is one you can't see. A metal chassis lines the side of its case, and there's special metal plating in other places. Because of these measures, the P75 emits much less radio interference than other 486 machines. It was the first such portable to meet the strict FCC Class B standard, which legally allows it to be used even at home.

With a 160MB hard drive, the P75 lists for \$10,645.

## Momenta

Everybody talks about pen-based computing, but nobody does it. At least, that's been the case up until now. But—while some other manufacturers wait for the *Pen Windows* or *PenPoint* operating systems to be perfected—Momenta has

broken the logjam. Its unique pen-based computer runs all DOS and *Windows* software and adds the company's own alternative operating environment.

Featuring the 20MHz 386SX

processor, a 40MB hard drive, VGA-compatible display and 4MB of RAM (expandable to 8MB), the

\$4,995 Momenta may be used as if it were an ordinary laptop computer. If you install *Windows*, the machine's pen will then act as a convenient substitute for a mouse.

Innovative hardware features include an integrated send/receive fax modem, a built-in version of MS-DOS 5, a built-in microphone and speaker, plus flash ROM for storing system parameters. Momenta has also incorporated a custom memory controller that more than doubles the speed of disk accesses and parallel port transfers.

Unlike other notebook machines, the Momenta operates on standard AA batteries for about six



NEC UltraLite SL/25C

hours of intensive computing. It has a power-saving standby mode that can, with judicious use, eke days out of a set of batteries.

Detach the Momenta's stylish black keyboard, and the machine really comes into its own. At the touch of an icon, you can flip over from DOS into Momenta's exclusive pen-based environment. It includes useful word processing, spreadsheet, calendaring, note-taking and graphics modules.

Using scalable font outlines from Bitstream, Momenta offers a fully WYSIWYG environment. If you print on the screen, the computer understands your writing and will convert it to text. If you sketch a shape, it will convert it into a graphic. And you can highlight text by drawing a line through it or a circle around it.

## NEC

TFT active-matrix color displays are the best you can buy. Bright, fast-acting and colorful, they look like a standard color monitor, with the added advantage that they're flat and distortion-free.

Previously, these screens were available only on AC-operated portables. Now, however, NEC has found a way to put one on a cordless machine, the UltraLite SL/25C. This "notebook-of-the-future" runs on batteries for up to 1.5 hours of continuous operation.

The \$5,999 UltraLite SL/25C is fully VGA-compatible, offering 16 simultaneous colors at 640 by 480 pixels, or 256 colors at 320 by 200. (Our photo shows the latter.) It also supports 800 by 600 Super VGA on an external MultiSync monitor.

Just slightly thicker than NEC's monochrome UltraLites, the SL/25C measures just 2.4 by 11.5 by 9 inches. Weight is 7.5 pounds.

Not just a pretty face, the UltraLite SL/25C is a fast performer. It uses the 386SL running at 25MHz, with 64K of cache RAM and support for a 387SX math coprocessor. Like other 386SL computers, it can be put into power-saving hibernation at any time. And, with an internal floppy drive plus an 80MB hard disk, it offers as much storage as we've seen in a notebook machine.



Momenta

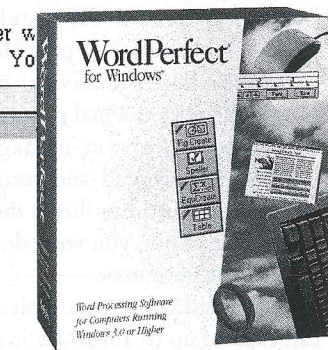


# Those of you curious about WordPerfect® for Windows can now stop using your imagination.



The screenshot shows the WordPerfect for Windows application window. The title bar reads 'WordPerfect - [c:\evans\docs\winshipe.pal - unmodified]'. The menu bar includes File, Edit, View, Layout, Tools, Font, Graphics, Macro, Window, and Help. On the left is a vertical 'Button Bar' with icons for Open, Retrieve, Save As, Close, Speller, Thesaurus, Print, Preview, Ruler, Fig Create, Table, Tbl/Dpts, Font, and Cut. The document content features the title 'WORDPERFECT FOR WINDOWS SHIPS' and a sub-header 'Shipping Around the World'. It includes an illustration of a cargo ship, a truck, and an airplane. Text blocks describe the software's distribution and features, mentioning 'EXTRA! EXTRA!', 'BUTTON BAR MANIA', and a contest where 'Nuns in New York' are the winners. A small illustration of a warehouse with a forklift is also present. The status bar at the bottom indicates 'Font: Palatino Bold 30 pt' and 'Pos 0.375\"

Now you can get all the power of WordPerfect® in a What-You-See-Is-What-You-Get environment. Plus some new WordPerfect innovations like a user-definable Button Bar™ that lets you easily access the features you use most. So, see the new WordPerfect for Windows today. Once you do, it may be hard to imagine using anything else.



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For More Information Circle 563





Toshiba 4400SX

Like other Ultra Lite computers, the SL/25C has a sleek black case with a 78-key keyboard. It has serial, parallel, Super VGA, keyboard, keypad and mouse ports. There's also an internal modem option and a docking station that provides two slots.

**Toshiba** Until very recently, there wasn't a single notebook computer that could cope with really demanding software such as CAD, engineering applications and sophisticated financial modeling. Then, Toshiba's T4400SX came along. Using the 25MHz 486SX processor, it runs at more than 11 MIPS.

Enhancing the T4400SX's performance still further is its bright gas-plasma display. With 16 gray scales, this display responds ten times faster than most LCDs, and it offers a tremendous 100:1 contrast ratio. Because they can move so fast, plasma screens are preferred by power users, especially with *Windows* and CAD software. People who want a black-and-white display, however, should know that Toshiba also offers the T4400SX with an advanced LCD that shows 64 different shades of gray.

Though it has more than three times the processing power of a 386SX notebook, the T4400SX doesn't eat batteries. It provides two to three hours of use in disk-intensive applications, and even longer life with normal programs. As usual, Toshiba's arsenal of power-management technologies includes the suspend-and-resume mode it first pioneered. You can shut down the computer any time, saving everything you were doing right down to the position of the cursor.

The T4400SX comes with 2MB of RAM, which can expand up to 10MB by inserting a card into the machine's dedicated memory slot. Other options include a 487SX math coprocessor—which upgrades the Toshiba to 486DX performance—and a modem.

Including its nickel-cadmium battery, the T4400SX weighs just 7.5 pounds, and measures 11.7 by 8.3 by 2.2 inches. It includes a mouse port, a parallel port, a serial port, a numeric keypad/101-key keyboard port and a VGA connector for an external monitor.

Toshiba's 82-key keyboard is joined by a special

clip for a Microsoft Ball Point Mouse. Thanks to this clip, you can remove the notebook's cover without removing your pointing device.

The T4400SX comes with either 60MB or 85MB drives. With an LCD screen and 60MB, it's \$5,299.

**Zenith** An early pioneer, Zenith produced one of the first DOS portables, and the first laptop with an internal hard disk and a backlit LCD screen. More recently, the company's special relationship with Intel enabled it to release the first notebook computer using the 386SL processor.

Now, Zenith is again using this chip—whose advantages include low power consumption, a sleep mode and several integrated controllers—in the powerful MastersPort 386SLe. Running at 25MHz, the MastersPort features 64K of cache RAM and 2MB of main memory (expandable to 8MB). Flash ROM provides users with the capability of upgrading the system's BIOS if necessary.

The MastersPort 386SLe's 85MB hard disk provides plenty of room for *Windows*. In fact, Zenith drives this point home by pre-installing MS-DOS 5 on the drive and bundling a copy of *Windows*.

Zenith has always produced excellent liquid crystal displays. The MastersPort's black-on-white panel uses dual-tube fluorescent backlighting and shows 32 shades of gray; its 16-bit interface makes for fast operation. The keyboard is also a strong point, with 12 physical function keys plus dedicated <HOME>, <PG UP>, <PG DN> and <END> keys. You can even swap its <CAPS LOCK> and <CTRL> keys.

Like other notebooks, the MastersPort 386SLe has a serial port, a VGA port and a slot for an internal fax/data modem that comes bundled with *FAXit for Windows*. It also has an enhanced parallel port (EPP) that can transfer data almost as fast as an internal 8-bit expansion card. The port is ideal for use with a Xircom LAN adapter and future EPP-capable products such as SCSI adapters.

The MastersPort 386SLe lists for \$3,999.



Zenith  
MastersPort 386SLe



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**EDITORS' CHOICE**

November 13, 1990  
Canon BJ-10e

## Another page in printer history.

First came the award-winning Canon BJ-10e Bubble Jet.™ Now, there's the new BJ-10ex. It prints on plain paper with the same laser-quality precision that won its predecessor the *PC Magazine* Editors' Choice Award for Excellence. Plus, it gives you greater software compatibility and more fonts.

The BJ-10ex is ideal for desktop use with its 30-sheet optional paper feeder attached. Or, use it as a single-sheet portable. With the optional rechargeable battery pack, it weighs a remarkable 4.6 lbs. And you can use a wider range of applications software with the new Epson® LQ™-510 or standard IBM® Proprinter® emulation.

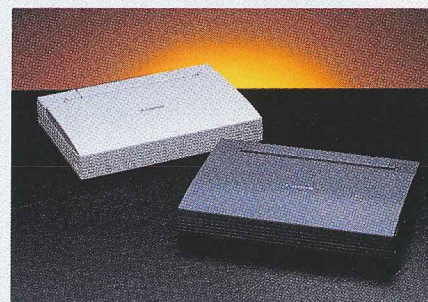
All your documents print quickly and quietly on the BJ-10ex. It even handles complicated graphics. Plus you never have to worry about maintenance because it uses an economical pop-in BJ cartridge containing both the ink and print head.

The laser-quality BJ-10ex Bubble Jet printer—what other printers only print on a desk, it prints anywhere.

The PC Magazine Editors' Choice Award and the PC Computing MVP Award were given to the BJ-10e. The BJ-10ex is an upgrade of this model.

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# REACH OUT YOUR

T

here's no feeling quite like it: realizing, just as a jet's wheels are leaving the tarmac, that you left the

spreadsheet you'd planned to spend the week working on back on your office computer. Or—while stuck in a hotel room two time zones away—hearing that a vital memo is waiting on the office LAN you won't see again for days.

With today's portable computers, traveling professionals can get all the computing power they'd enjoy back in the office. What they can't get, unfortunately, is all the information—not, that is, when the portable computer can't access the home office LAN.

Remote control software is the simple, comprehen-

sive answer to this problem. Working in the background, it sends keystrokes from your portable or home computer to the machine back at the office; it also relays screens in the opposite direction.

With the right password (these programs have security provisions that even include a call-back option), you can do everything remotely that you would be able to do on the office computer. This includes:

- sending and receiving E-mail
- consulting corporate databases
- transferring files to and from your office computer.

Remote control software installs as a memory-resident kernel on both your office computer (the "host") and your remote machine (the "guest"); once a modem connection between the two has been established, it steps into the background. In normal operation, then, the remote control programs in this Buyer's Guide are essentially invisible.

That's not to say, though, that they are all alike. Some incorporate data-compression routines efficient enough to transmit *Windows* screens, which comprise much more data than ordinary DOS screens. Some can convert between CGA, EGA and VGA graphics (necessary when guest and host computers have different graphics adapters). And some can establish a connection between two workstations on the same LAN (for collaborative projects or in-house support).

All prices listed are manufacturer's suggested list prices.

Remote control software turns an ordinary phone line into the world's longest keyboard cable.



Photography by Bill Schwob/Phone courtesy of The Good Guys



# AND TOUCH OFFICE

By Jonathan Angel

## **Carbon Copy Plus and Carbon Copy for Windows (Microcom)**

*Carbon Copy Plus*, one of the first remote control programs on the market, has evolved into a \$199 package that can handle all your communications needs with a single purchase. It lets you connect host and guest PCs via modem, makes a similar connection over a LAN, and even has an integrated terminal emulator for calling online services such as CompuServe and MCI Mail.

*Carbon Copy Plus*' simple, menu-driven user interface makes it easy to call up a host PC. You don't need to worry about whether the host has the same type of graphics adapter as the machine you're calling from; *Carbon Copy Plus* will automatically translate between CGA, EGA, VGA and Hercules graphics modes, when required. And if the host computer is a 386 system, *Carbon Copy Plus* can be loaded into high memory, saving RAM for large applications.

Like other remote access products, *Carbon Copy Plus* incorporates password and call-back protection, a chat facility and the ability to print files locally or remotely. You can transfer information to and from a host PC using a proprietary, error-correcting data compression protocol. (For connections with machines

that aren't running Microcom's host software, *Carbon Copy Plus* also supports XMODEM, YMODEM and Kermit.)

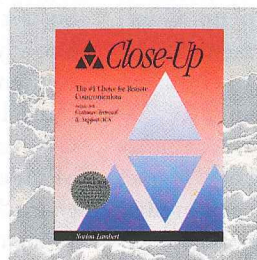
Though *Carbon Copy Plus* supports some *Windows* modes, intensive *Windows* users should try the new *Carbon Copy for Windows* instead. This \$199 program—\$79 to registered *Carbon Copy Plus* owners—lets you use all the *Windows* programs on a remote machine just as you'd use them locally. It also includes a click-and-drag file transfer utility much like *Windows*' own File Manager.

## **Close-Up (Norton-Lambert)**

Norton-Lambert's *Close-Up* is a remote control program with two significant advantages. First is the fact that the company sells its guest and host components (known as *Customer/Terminal* and *Support/ACS*, respectively) separately. This can save a company a little money if it has only a single host computer that will be shared by many different guests.

More important, *Close-Up* provides particularly fast performance—"far better than any other remote software," according to *PC Magazine*. This means that it's often usable with 2,400 bps modems in situations where other programs would require a 9,600 bps link.

*Close-Up* is a DOS character mode product. However, it supports *Windows* quite well. Once *Support/ACS* is running, a host PC can be used to



run *Windows* in either Standard or 386 Enhanced modes, with full remote control of both the keyboard and mouse. On a guest PC, the *Customer/Terminal* module can be run full-screen or in

a window, letting users switch between local and remote *Windows* sessions.

If you call a host computer, such as your office-based PC, to perform repetitive actions (logging onto E-mail or transferring the same files), you'll like *Close-Up*'s programmability. Its ACS (Automated Communications System) commands let you develop scripts that can perform actions rapidly without user intervention.

*Customer/Terminal* sells for \$195, while *Support/ACS* is \$245. The LAN version of *Close-Up*, required for workstation-to-workstation connections, costs \$395 in a two-user pack.

## **Commute (Central Point Software)**

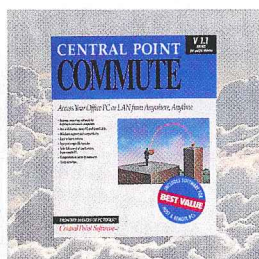
Central Point Software's *Commute* is the bargain buy among remote access programs. Available separately for \$129, it's also included when you buy *PC-Tools* for \$179.

However you acquire *Commute*, what you'll get is a single program that supports both host and guest computers. (You run it, and then simply tell the program whether your machine will be making a call or awaiting one.) *Commute* operates via modem and also, right out of the box, on any Novell network.

*Commute* comes with its own graphical user interface with pull-down menus. This makes it easy to dial a number via modem, or—if you're on a







NetWare LAN—identify servers, gateways and other active Commute users. Once a connection has been made, you may pop up Com-

mute's Session Manager menu at any time; its options include file transfer, chat mode and remote printing. Once loaded on a host, Commute supports remote execution of Windows in Standard or 386 Enhanced modes. Central Point Software provides Windows software drivers that make remote keyboard and mouse operation more reliable. Like some other programs, Commute can also translate between CGA, EGA and VGA graphics modes, if necessary.

In addition to the usual password and call-back protection, Commute can limit individual users to specific levels of data access. An activity log records all operations for later auditing, while built-in virus protection checks files being transferred for more than 600 viruses.

## NETremote+ (Brightwork Development)

Brightwork Development is a company that specializes in producing software tools for LAN administrators. Thus, while NETremote+ can be used to perform the same tasks as any of the other programs in this Buyer's Guide, it has been written with LAN support specifically in mind.

NETremote+ assumes that the host computers—those whose screens you'll want to view remotely—belong to LAN users. Accordingly, its host mod-



ule (NRlisten) has been designed to load in a DOS batch file and stay resident in memory; it has no menus or controls that could confuse novices. The LAN administrator can examine hosts with NRcall, a guest program that features many built-in diagnostic tools.

When NRcall first connects to a host, it sounds a tone that lets the user know you're there, and then displays configuration information for that machine, including its network address, its CPU and RAM capacity, and the type of video adapter it has. Via the program's NetWare-style menu, you can go on to collect more detailed configuration information or run diagnostic tests.

Designed to run over NetWare, VINES, 3Com 3+ and other networks, NETremote+ works over Wide Area Networks and across LAN-to-LAN bridges. It also has a modem communications module that lets administrators provide late-night support or start tape backups without having to return to the office. With Brightwork's companion product,

LAN Support Center (\$595), NETremote+ can automatically compile hardware inventories and log LAN support calls for billing purposes.

NETremote+ costs \$350 for a single-server system. A multiserver system that allows up to four servers costs \$695.

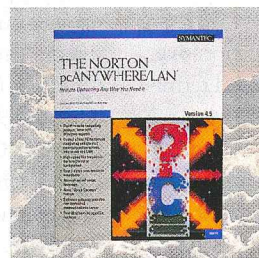
## The Norton pcANYWHERE IV and The Norton pcANYWHERE/LAN (Symantec)

pcANYWHERE IV, recently acquired by Symantec, is the latest version of one of the first remote control programs. As such, it comes with both a proven track record and a wealth of features.

Like the other programs in this Buyer's Guide, pcANYWHERE allows

guest computers to dial in to a network and run programs remotely. It features full support for all graphics modes, with automatic mode translation, when required. Also offered is a process control language for automating repetitive functions such as file transfers.

Thanks to pcANYWHERE's modular, menu-driven approach, however, there are many other possibilities. For example, the program may be used as a general communications program; it includes VT220 terminal emulation and XMODEM file transfer. Or it can be



used to move files between desktop and notebook computers using a direct serial connection at up to 115,200 bps.

The network version, pcANYWHERE/LAN, adds a modem gateway function, which is ideal if your company has limited outside telephone lines. Running in the background using just 27K, a memory-resident program makes a modem connected to any LAN workstation accessible by other network users. Since it has a minimal effect on performance, the software does not require a dedicated server.

pcANYWHERE costs \$179 in a package including both guest and host software. (You can buy host software separately for \$129, and guest software for \$99.) pcANYWHERE/LAN costs \$495 for two users, and \$25 for each additional user.

## Remote2 and R2LAN (DCA)

Most remote control programs transfer screens and keystrokes by using a host program and, for the guest, a terminal-emulation program written specially to match its characteristics. DCA's Remote2 is no exception, with a host program known as R2Host and a guest program called R2Guest. But, because there are times when an authorized caller might not have a copy of R2Guest, R2Host can optionally re-



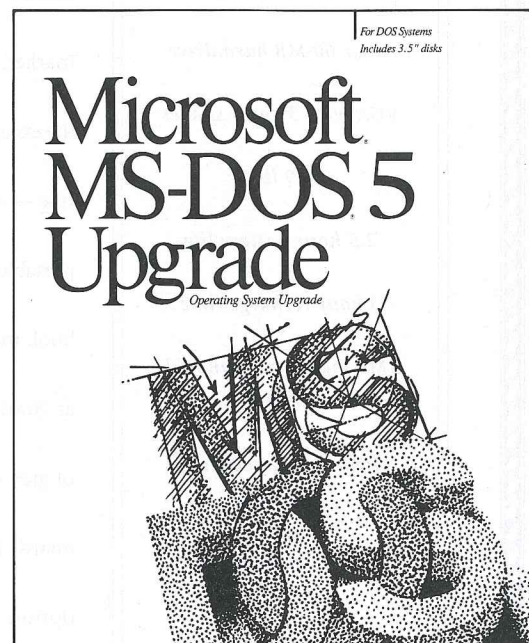


# Why no PC should be without the Microsoft MS-DOS 5 Upgrade.

The Microsoft® MS-DOS® 5 Upgrade is the safe, easy way to free at least 45K more conventional memory from virtually any model of personal computer with an 80286 or higher microprocessor. If you're using network drivers, device drivers, or TSRs on a PC with an 80386 or higher microprocessor, you can save even more memory. Here's what you get with the Microsoft MS-DOS 5 Upgrade:

- Load MS-DOS, device drivers, and other software high to save conventional memory
- Use larger DOS\* applications and data files than ever before—and in the Microsoft Windows™ graphical environment, too
- Take the mystery out of DOS
- Use a quick, simple installation program

Novice users will appreciate the redesigned graphical shell, with drop-down menus, that makes file management easy. It has extensive online Help. It can even restore accidentally deleted files. And most important, it has undergone the largest beta test in PC history—more than 7,000 independent sites—making MS-DOS 5 the safe choice for your PC. No PC should be without it.



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\*As used herein, "DOS" refers to the MS-DOS and PC-DOS operating systems.  
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386SX, 20 MHz

40 or 60 MB hard drive

VGA with 32 grey shades

6.9 lbs.

2.5 hour battery life

3 hour recharge time

2 MB memory expandable  
to 5 MB

lightweight adapter/  
recharger

fax/data modem option

12" x 10" x 1.8"

MS-DOS 5.0

As a rule, low price means low perfor-

mance in the fiercely competitive PC

market. But this is

the exception to the

rule — an incredibly

portable 386SX note-

book machine running

at 20MHz. VGA screen with 32 shades

of grey. 84-key standard-spaced key-

board. Internal fax/data modem

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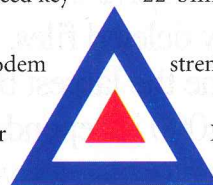
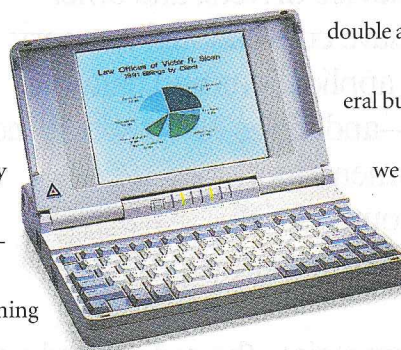
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continued from page 36

spond to any other communications program emulating one of 20 popular terminal types. This will let users connect to a LAN using any PC, Macintosh, Amiga, Atari—or even a dumb terminal.

With the usual password and call-back security options, *R2Host* also features additional access control features. You can assign privileges on a file, directory or drive level. You can also hide selected files or directories from directory lists. Thus, users remotely accessing the LAN might be locked out of certain facilities they could still access when back at the office.

With *R2Guest*, *Remote2* offers a special proprietary file transfer protocol, plus automatic translation between Hercules, CGA, EGA or VGA displays.

For calling online databases and E-mail systems, it includes a general-purpose communications program based on *CROSS-*

*TALK Mk.4* from DCA.

*Remote2* costs \$195 for both host and guest software. Guest software is available separately for \$89 per user, while additional hosts are \$129. The LAN version, known as *R2LAN*, is \$795 per server.

### **Takeover Lite (Softklone)**

If you have a modem in your portable computer, you probably use it part of the time for calling online services and part of the time for accessing your office PC remotely. Until recently, you would have had to purchase, install and learn separate communications programs for each type of connection. Softklone's *Takeover* changed all that,

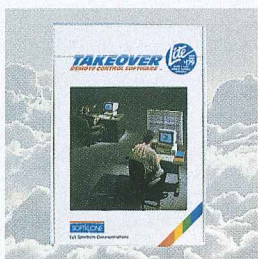
providing, for the first time, access to every type of computer from a single dialing directory.

*Takeover Lite* now costs just \$179 for both host and guest software. Its guest program, which is a customized version of Softklone's *Mirror III*, offers nine different file transfer protocols, 22 different terminal emulations, and a powerful script language for automating repetitive communications.

When calling a machine running *Takeover Lite* host software, you just use Softklone's proprietary terminal emulation—this efficiently supports transfer of CGA, EGA, VGA and Hercules screens, keystrokes and mouse movements. *Takeover Lite*'s script language lets you automate repetitive actions such as entering your password and retrieving E-mail.

Like the other programs in this Buyer's Guide, *Takeover Lite* provides remote access to a LAN, although it is not designed for screen sharing between nodes on the network itself. Small companies or branch offices that don't have a LAN—but do have a PC they want multiple remote users to share—should investigate *Takeover*. This \$295 advanced version of the program comes with more elaborate host software, including many security options.

With *Takeover*, you can define specific drive, directory and file access rights for each user. The host can also define a different batch file to run when each user logs in.



### **Timbuktu and Timbuktu/Remote (Farallon)**

Before Farallon's *Timbuktu* came on the scene, the only software you could access remotely was character-based. Graphics screens and mouse movements were just too difficult to pump over a phone line. *Timbuktu* changed all that—in an elegant way that its Windows counterparts still haven't equalled.

*Timbuktu* is a \$195 screen-sharing program that runs across any AppleTalk network. It lets you view and operate one or more Macs belonging to other users from your own workstation.

Remote Macs' screens appear in windows on your own computer's desktop. To keep this from getting confusing, *Timbuktu* puts a special border around the remote screens—you always know which machine is which. *Timbuktu* automatically translates from 24-bit color to 8-bit color or gray scales, when needed, and, if a remote computer's screen is larger than your own, it lets you move around by scrolling.

*Timbuktu/Remote*, also \$195, works via modem. Like *Timbuktu*, it lets you send files or folders in the background. You can also copy from one Mac and paste to another via the clipboard.

A boon for managing remote LAN servers, *Timbuktu* incorporates access control that includes multilevel passwords for each different user. It also has a call-back option. With Farallon's special Remote/WakeUp cable (\$49.95), your Macintosh will start up automatically when a call comes in and shut down when the caller disconnects. □





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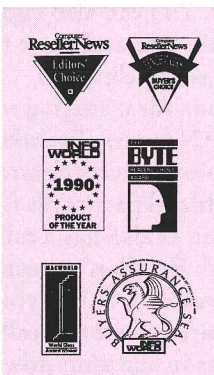
You don't get infinite storage in 90-megabyte  
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Bernoulli can be. Before the  
90s leave you behind.

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For More Information Circle 555



# PLUG-IN PERIPHERALS

Conventional wisdom maintains that the more expansion slots a computer has, the better. In recent years, manufacturers have challenged this premise, making slots superfluous by adding graphics, hard disk control and other functions to PC motherboards.

However, you still need at least one slot if you want to connect to a modem or network—or do you? Cigarette-pack-size adapters can eliminate the need for a slot by plugging into any computer's parallel or serial port. You can use one of these adapters to connect to a modem when you're in an airport or at a client's. When you're back in the office, use another to connect into your company's LAN.

These "hit-the-road jacks" compare surprisingly well with traditional cards. The modems are just as fast as those you'd install in a slot. LAN adapters, SCSI interfaces and other parallel port devices give up some speed in the translation, but make up for it by delivering exceptional versatility and ease of use. The best adapters move data about as fast as an 8-bit ISA expansion card, yet work with any PC, PS/2 or notebook computer.

In this Buyer's Guide, we sample a variety of plug-in peripherals that provide data communications, fax, SCSI, floppy disk and network access. You'll find others at your dealer, including interfaces for tape backup and more.

## Hayes Pocket Edition 2400

Internal modems add convenience to portable computers and desktops, but they can be a short-sighted investment. Hayes' Pocket Edition 2400 (\$179) saves money by traveling with you from place to place and machine to machine. It's at home on a portable, drawing power from the phone line and the PC's serial port. Back at the office, it fits in well, too. Rather than connecting to a serial port directly, it uses a flexible cable—you'll be able to use this pocket modem and still push your computer right up to the wall.

## Iomega Parallel Port Interface for Bernoulli

With 19ms access times, Bernoulli drives are a good way to add primary storage or readily accessible backups to any machine. Now, they can work with a portable computer,

thanks to Iomega's Parallel Port Interface (\$265). It's a small unit that draws power from the Bernoulli drive itself, transferring data at up to 225KB/sec.

## NEC CD-INT 339 CD-ROM Adapter

Recently enhanced for compatibility with a wider variety of machines, this \$112 pocket-size adapter will connect your portable to one of NEC's multimedia-ready CD-ROM drives. It measures just 4.25 by 2.1 by .7 inches, so it's easy to tote with a notebook and a portable CD player. Using SCSI, the CD-INT 339 will also work with some hard disk drives, though you should note that NEC has not formally tested this.

## Practical Peripherals Pocket Modem

Like many other companies, Practical Peripherals produces inexpensive Hayes-compatible modems. Only Practical's, though, are both made in the United States and guaranteed for five years. At \$159, Practical's little 2400bps Pocket Modem is a good deal. It connects to the serial port of any portable or desktop machine. You'll never be caught with a dead battery, because the

Pocket Modem draws power from the host PC and the phone line.

## Sysgen Portable Easy Floppy and Mobile Disk

Sysgen has come up with an easy way to add disk drives to any PC compatible—desktop or laptop. The Portable Easy Floppy (\$395) is a high-density floppy disk drive (available in 3.5- or 5.25-inch sizes) that attaches to a computer via its parallel port. It lets you transfer files almost as rapidly as an internal floppy. The Mobile Disk is a compact, portable hard drive, available in 40MB, 80MB or 120MB capacities (from \$550). It pumps up to 350Kb/sec through your PC's parallel port. Sysgen's products feature duplicate parallel port connections, so you can use them simultaneously with a printer.

## Ven-Tel Pocket Modem with Fax 24/96S

For just \$189, Ven-Tel's Pocket Modem with Fax 24/96S will turn a notebook PC into a complete office. Powered by a single 9-volt battery, it lets you send and receive data at up to 2400bps. Its hidden bonus is the ability to send pages at 9600bps to any fax machine; Ven-Tel includes software to make this simple.

## Xircom Token Ring Adapter II

Specializing in parallel-port-based LAN adapters, Xircom has produced more than any other company. Their line even includes Simplicity, a complete network solution built around these adapters. Its Token-Ring Adapter II (\$895) will connect you to any 4 or 16Mbps/sec network in seconds. It includes exclusive *SmartRing* driver software that maximizes performance and cuts laptop memory requirements. □

—by Jonathan Angel



# PRACTICAL 2400 BPS V.42bis POCKET MODEM WITH FAX

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# SPECIAL INTRODUCTORY VIDEOTAPE OFFER

For ComputerLand Magazine Readers



(please print)

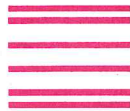
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**YES!**

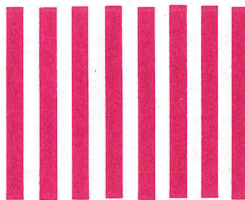
Please send me a copy of **The Benefits of Sales Force Automation** at the special introductory price of only \$19.95 plus \$3.00 for shipping, handling and local sales tax, for a total of \$22.95. Invoice me at the above address.

Find out how companies of all sizes are using notebook computers and Sales Force Automation software to boost productivity while enhancing customer satisfaction.





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payback aren't always readily available. Customer loyalty and satisfaction, in particular, are not readily quantifiable. "It's sometimes very, very difficult to measure the benefits," she says. "We finally did a market survey to see how our customers felt about us, and found by that measure that the results were exceeding our expectations."

## 6. Training for Success

Training and support are important with any information system, but with Sales Force Automation projects, they are critical. "Training is at the absolute top of my list of things to get right," says Hagggar's Sample. "We thought our documentation was extremely simple and straightforward, but our sales reps couldn't understand it. So we had to completely rewrite it from their point of view."

3M takes an unusually thorough approach to training and support. "There's no such thing as overtraining," says Bircher. After an initial two-day training class, 3M reps are sent out into the field to use the system for six weeks. Then they're brought back into the classroom to brush up on the basics and to learn some advanced techniques. In addition, every rep is assigned a "mentor" in information systems who watches out for possible problems, such as a rep's reluctance to tie into the corporate mainframe for customer data. "Training can be expensive, costing at least as much as the hardware and software," says Bircher. "But if you don't do it, the reps can get frustrated and not use the system, and this will cost you more money in the long run." □

*David Freedman is a freelance writer based in Brookline, Massachusetts.*

Sales force  
automation  
made me a  
**Winner!**



## SPECIAL VIDEOTAPE OFFER

### THE BENEFITS OF SALES FORCE AUTOMATION

This new videotape from ComputerLand Video shows how companies of all sizes are using notebook computers and SFA software to boost productivity of their sales forces while enhancing customer satisfaction.

- **Connectivity tools** give sales reps online access to corporate databases, speeding response to customer queries.
- **Communications tools** keep travelling sales reps up-to-date on current information and enable them to place orders on the spot.
- **Productivity tools** keep paperwork to a minimum and maximize the rep's time with customers.

**Includes a video catalog** showing the latest software and hardware available for implementing Sales Force Automation.

**To receive your copy of The Benefits of Sales Force Automation at the special introductory price of \$19.95, plus shipping and handling, fill out the attached order form.**

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# SPECIAL OFFERS AND EVENTS

## offers, discounts, rebates & events

- ▶ **Apple - Tune-up software for System 7**  
To receive new tune-up software, including enhancements to System 7 for smoother operation of the Macintosh, contact your local ComputerLand branch or call Apple directly at (800) 947-5176.
- ▶ **Hewlett-Packard - Test drive a LaserJet IIISi**  
Qualified customers can evaluate a brand-new LaserJet IIISi printer, HP LaserJet IIISi *PostScript* printer or HP LaserJet IIISi printer for the Macintosh for 30 days. Contact your local ComputerLand branch for details. Offer good through March 31, 1992.
- ▶ **Lotus - Substantial savings on Lotus 1-2-3 upgrades**  
For \$150, you can upgrade your existing copy of Lotus 1-2-3 to any current version, including 1-2-3 Release 2.3 or 3.1+, 1-2-3 for Windows, or 1-2-3 for OS/2. See your local ComputerLand branch for details.
- ▶ **Microsoft - Free LAN Manager upgrade**  
If you purchased *LAN Manager* V2.0 between September 30, 1991, and December 15, 1991, you are eligible for a free upgrade to V2.1 from Microsoft. Call them at (800) 227-4679 for more information.
- ▶ **Radius - Get a \$50 rebate on PowerView**  
When you purchase Radius' new PowerView display interface, you can receive a \$50 rebate. Offer good through March 31, 1992.
- ▶ **Software Publishing - Trade up to Harvard Draw for Windows**  
Through March 30, Software Publishing is offering *Harvard Draw for Windows* (a \$595 value) for \$99 when you trade in eligible competitive software. Contact your local ComputerLand branch for details.
- ▶ **Multimedia Seminar**  
On March 10, ComputerLand of Southfield, Michigan, is presenting a seminar on multimedia at Radisson's Plaza Hotel. Contact Dawn Oszust at (313) 357-8467 for more information.

To find out more about these special offers and events, call or fax your local ComputerLand branch (see back cover for telephone numbers), or phone the numbers listed above.

## coming next issue

### Information Systems in Evolving Corporations

#### Technology and Corporate Structure

This overview shows how changes in corporate information systems and in corporate organizations can have mutually reinforcing effects.

#### Corporations in Transformation

Profiles of companies that have undergone major reorganizations in their information systems and management practices.

#### Buyer's Guides

*PostScript* Laser Printers, Diskless Workstations and Uninterruptible Power Supplies

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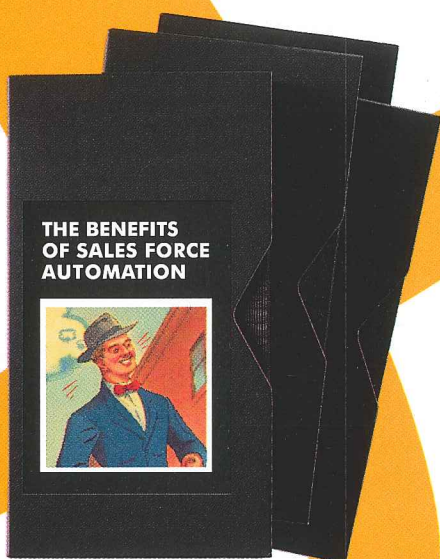
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# The Benefits of Sales Force Automation

new

*The first videotape from ComputerLand Video*



Companies of all sizes are using notebook computers and SFA software to help their sales forces. *The result?* Many companies report sales increases of 10% to 30%.

## Videotape Contents

**Meet sales managers** from a number of different companies. You'll learn why they use SFA and how they implement it:

- Greater knowledge of customers and their sales history
- Cost savings through reduced paperwork
- Shorter delivery lead times
- Better and more timely reports from field staff
- Better integration of information systems

**Meet sales reps** who use SFA everyday:

- They can offer customers immediate response to inquiries
- They have more time to spend with customers
- Reduced training time

### **Video Catalog:**

- The latest notebook computers from many manufacturers
- Various SFA software packages offering:
  - productivity tools
  - connectivity and communications tools
- Pricing and order information

*ComputerLand is offering this new videotape at the special introductory price of \$19.95, plus \$3, to cover the costs of tax, shipping and handling. To order your copy of The Benefits of Sales Force Automation, fill out the order card between pages 42 and 43.*





## IBM Unveils 3.5-Inch Rewritable Optical Disk Drive.

Computer giant IBM today announced the official introduction of its eagerly awaited 3.5-Inch Rewritable Optical Disk

All of this is particularly good news for businesses with substantial data storage needs, such as insurance companies, the

June 12, 1991

## Verbatim Unveils 3.5-Inch Rewritable Optical Disk.

Information storage leader Verbatim, Inc., today announced the introduction of its new 3.5-Inch Rewritable Optical Disks.

\*With this product introduction, Verbatim once again proves it will continue to set the pace for

cycles. Rewritable optical disks have all the advantages of floppy diskettes—removability, portability and fast access to data—yet one 3.5-inch optical disk stores 128 million bytes, or roughly the equivalent of 28 high density

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# WHAT A COINCIDENCE.

It's been said that two great minds often think alike. As you can see, in this case, two of the greatest minds in computer technology have developed a disk drive and a disk so superior, so remarkably compatible, they're destined to change



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