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# INFO WORLD



June 13, 1994

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we not only have  
the courage of  
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# INFO WORLD

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ENTERPRISE COMPUTING

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## Banking on client/server finance apps

Financial applications for client/server platforms are proliferating. See page 63

## Frye network management pieces fit

Frye Utilities for Networks is the best group of products for NetWare LANs. See page 88

JUNE 13, 1994

THE VOICE OF PERSONAL COMPUTING IN THE ENTERPRISE

VOLUME 16, ISSUE 24

## Groupware features on tap for NetWare 3

Novell stresses more development

BY VANCE MCCARTHY

NetWare 3x users can look forward to enhancements that will optimize it for easy-to-implement groupware applications, officials at Novell Inc. said last week.

Within the groupware space, we want to help facilitate and stimulate collaborative application software. That work will not be exclusive to NetWare 4," said Toby Corey, senior director of marketing for Novell's NetWare Products

division. "There is continuing development work going on for NetWare 3," Corey said, stressing that no firm product plans are in place.

A key goal, Corey said, is to improve NetWare 3's capability to exploit multiuser applications written to NetWare's mail, video, telephony, and document management services APIs.

Some technologies under review at Novell arise from work initially done on

See **NETWARE**, page 110

## Pentium upgradability of older 486 systems uncertain

BY BROOKE CROTHERS

Users who bought their 486 systems in 1992 and early 1993 may be in for a rude surprise if they choose to rev up those systems with a Pentium upgrade.

due by the end of this year.

Although many PC vendors have been submitting their recent 486 systems to Intel for an "Intel Verified" stamp of approval for a Pentium upgrade,

See **PENTIUM**, page 110

## What's verified and what's not

Systems that are "Intel Verified" for Pentium upgrades

IBM	About 80 ValuePoint models
Dell Computer Corp.	5 OptiPlex models
Hewlett-Packard Co.	20 models, NetServer and Vectra lines
AT&T Global Information Solutions (NCR)	About 30 models
Gateway 2000 Inc.	About 20 models
Zeos International Ltd.	5 local bus-based models

Systems that Intel Corp. hasn't verified as Pentium-upgradable

Compaq Computer Corp.	All systems
Dell Computer	Dell series L, M, ME
Zeos International	Some older EISA systems

Note: Some vendors, like Zeos International, are still in the process of getting systems verified.

## Microsoft set to put its stamp on SQL Server

Upgrade to focus on data replication, administration

BY MIKE RICCIUTI AND DOUG BARNEY

Microsoft Corp., seeking to prove that it can go it alone on the database management front, this week will showcase the next version of its SQL Server database management system, which includes built-in data replication and a new database administration and management tool.

Having recently severed ties with Sybase Inc., Microsoft is now ready to take on its former database partner with its own database, code-named SQL 95.

The most notable feature of SQL 95 is data replication, which will let users automatically synchronize data in multiple database systems. That



Microsoft's Jim Allchin is scheduled to introduce SQL Server this week.

puts Microsoft and Sybase in head-to-head competition, because Sybase will also support data replication in its upcoming

version of SQL Server System 10 on Windows NT, also due later this year.

Used in conjunction with Microsoft's Starfighter management console, SQL 95 will let users schedule replication of databases, selected tables, or single records through a drag-and-drop interface.

Built-in replication will appeal to users who have developed home-grown systems for performing the same tasks.

"Why should users have to invent the wheel? Replication should be part of the product," said David Greenberg, director of new systems development at the Orlando Health Care Group in Florida.

Greenberg, who has been

See **SQL**, page 110

## With a year to go, mist clears on Cairo features

BY DOUG BARNEY

Even as Microsoft Corp. prepares to launch Chicago to thousands of beta testers this month, details are emerging on its big brother—Cairo.

Although Cairo will incorporate some Chicago features, it will also bring new technologies and features, including a unified forms creation tool set, advanced data indexing, robust



data replication, and a new file system, according to internal Microsoft documents obtained by InfoWorld.

Although Cairo carries Chicago's object-oriented features to new heights, Microsoft hopes for a smooth transition and solid compatibility between the two products, insiders said. Observers say, however, that Microsoft

See **CAIRO**, page 110

## Road to Cairo

OS will come in client, server, and development editions

- ▶ Runs on all platforms that support Windows NT.
- ▶ Implements data replication.
- ▶ Features Info Docs, forms for reading and editing without a host application.
- ▶ Incorporates Object File System to store documents and objects.
- ▶ Includes Systems Management Server.

## Adobe aims high with open architecture for Acrobat

BY WILLEM KNIBBE

With its Acrobat document interchange tool underwhelming the market, Adobe Systems Inc. is readying an upgrade that will sport a more open architecture so third-party developers can add such features as

document management.

Acrobat 2.0, which is in beta and will ship late this summer, will have an open API that is being distributed to integrators now so they can customize the product for vertical markets and develop plug-ins.

The company's goal is to

make Acrobat a standard that can be exploited by other software vendors, Adobe President Charles Geschke said last week at the Software Publishers Association's Europe conference.

To this end, the company is

See **ADOBE**, page 8



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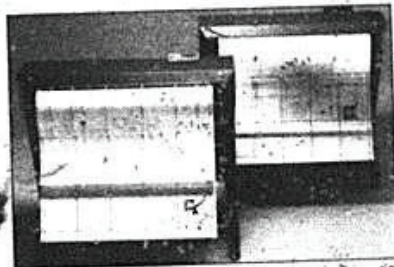
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**AT DEADLINE**

**Apple to lay off 50 from Interactive Electronics**

Apple Computer Inc. is about to lay off staff following an internal review of its Personal Interactive Electronics division's revenues and staffing, sources said last week. The layoffs, expected soon, should affect no more than 50 people from the 350-employee division, and other divisions could also be affected, these sources added. The study and coming layoffs are part of a restructuring that began last May and included chief financial officer Joseph Graziano's taking over the business unit. The company is also lowering expectations for the success of the Newton MessagePad PDA, sources said. Newton MessagePad sales have dropped dramatically after an initial boom, and new marketing efforts have focused on vertical applications.

—Yvonne L. Kee and Tom Quinlan

**Judge orders recall of DOS 6.0, 6.2**

A federal court judge told Microsoft Corp. last week to recall remaining copies of its Microsoft DOS 6.0 and 6.2, as well as Microsoft's Elsh File System and Windows NT Remote Access Server from its retail sales and OEM channels worldwide. The recall order applies to shrink-wrapped software that is on dealer's shelves or installed on systems in stores or warehouses, not to end-users or system manufacturers who have signed a separate license agreement with Stac. The Electronics Inc. After losing a patent infringement case to Stac three months ago, Microsoft stopped manufacturing or selling software with its DoubleSpace disk compression utility. Microsoft said the decision will not have much material effect because most infringing software that had been released to the channels has already been sold. But Stac claims that a spot survey of dealers in May revealed that 80 percent of the PCs for sale had infringing software installed. Stac President and CEO Gary Clow estimates that Microsoft will have to recall 4.5 million copies.

—Clair Whitmer and Doug Barney

**NetWare Ready hardware ships**

Novell Inc. last week launched its NetWare Ready program. The client and driver software is designed to make hardware suppliers' products easier to install and configure in NetWare networks. Early participants in the program include IBM, Digital Equipment Corp., Compaq Computer Corp., Dell Computer Corp., SynOptics Communications Inc., Cabletron Systems, and 3Com Corp.

—Vance McCurny

**BRIEFLY NOTED:** The **Federal Communications Commission** will next month auction six licenses per geographic area for the radio spectrum companies will use to offer wireless services. **Adobe Systems Inc.** will ship in the third quarter the \$60 Adobe Type Manager 3.8 for the Macintosh, which will run natively on Power Macintosh machines and include 30 fonts. **KnowledgeWare Inc.** has acquired the assets of **ClearAccess Corp.** and its subsidiary **Fairfield Software Inc.** in exchange for KnowledgeWare stock. KnowledgeWare will now sell ClearAccess, a database query tool, and ClearManager, a query administration tool, under its own label. **RSA Data Security Inc.** and **Enterprise Integration Technologies** will launch a start-up company called **Terisa Systems** to build Internet security toolkits for developers of commercial services. **NexGen Inc.** has signed a multiyear agreement with IBM Microelectronics whereby IBM will manufacture and sell the Pentium-class **NexGen Nx586** processor and the **Nx587** floating-point coprocessor. **Hewlett-Packard Co.** will unveil this week the **Vectra Multimedia PC** Series of network-ready multimedia computers. HP will also launch **OmniShare**, a device that links to a telephone and lets users send whatever is written on the OmniShare screen to be immediately transmitted to a PC or fax machine. **Ungermann-Bass Inc.** has renamed itself **UB Networks Inc.** and has announced **AccessStax 16**, a 16-port hub that costs \$1,295 and ships next month and **AccessStax 24**, a 24-port hub that costs \$1,995 and ships now.



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Pages 99-107

INFOWORLD



JUNE 13, 1994

# NEWS / SOFTWARE

## PIPELINE

### SHIPPING

#### Aha ships its InkWriter processor for Windows

Aha Software Corp. has ported its "ink processor" software to Windows. InkWriter 2.0 for Windows lets users of pen-based systems format handwritten text as they would typed text. The software does not require the text to be translated into ASCII text before formatting, but adds character formatting such as boldface and italics, as well as paragraph formatting such as indentations, hanging paragraphs, word wraps, and handwritten information. The \$199 product, now shipping, will be available for \$149 through August 1 when purchased directly from Aha. (800) 242-7638.

**AimTech Corp.** is shipping IconAuthor Player for the Macintosh, which lets multimedia applications authored in Windows, OS/2, or OSF/Motif versions of IconAuthor run on the Macintosh. The \$1,495 IconAuthor Player will support native Mac file formats and QuickTime. (603) 883-0220.

Versions 1.1. **StarBase Corp.**'s version control software for Windows and Windows NT, uses a project library concept to let developers check out current and past versions of everything from source code and engineering drawings to word processing and graphics files. The \$279 program, shipping for \$179 through July, supports binary files and works with all programming environments, including Visual Basic, C++, Visual C++, and PowerBuilder. (800) 891-3262.

### ANNOUNCED

#### Security utility readied for Power Macintosh

Kent Marsh Ltd. will ship this summer a native Power Macintosh version of FolderBolt Pro, its folder-level security utility. The \$129.95 Power Mac version uses the Data Encryption Standard and can open files locked with the Windows version of FolderBolt. (800) 325-3587.

### ACQUISITIONS

#### Cardiff expands reach of its Teleform tool

Automated forms processing vendor Cardiff Software Inc. is broadening its reach and has acquired Harvest Software Inc. The acquisition will enable Cardiff to link its Teleform forms processing tool to mainframe and AS-400 computers. (619) 259-6430.

# Developers laud Borland's Delphi 95

## C++ version remains in question

By SCOTT MACE

ORLANDO, Fla. — A group of developers cheered when Borland International Inc. demonstrated a new rapid application development client-server tool for Pascal at its developers' conference here last week. But they left still wondering when a C++ version of the tool would be available.

Code-named Delphi 95 and referred to at one time as Borland's Visual Basic Killer, the tool will not ship until March 1995. It will offer a rich set of object-oriented functions, including the same "two-way tools" environment being built into dBase for Windows.

The key objective of Delphi 95 was to give developers rapid application development and reuse of code and objects without sacrificing performance, said Zack Urlocker, Delphi's business unit manager.

Users applauded the effort

but pressed the company for a C++ version.

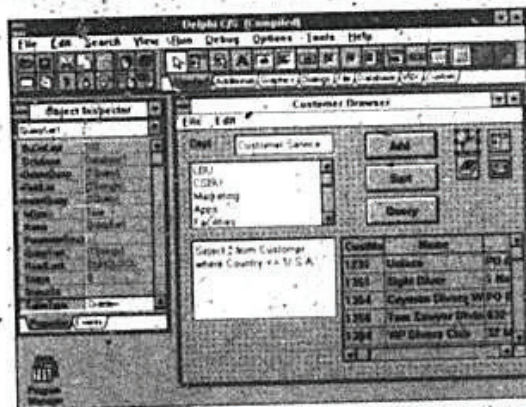
"I'm very impressed with what I saw, but when will this be readily available for C++?" said Bruce Wilson, a Windows application developer at Northrop Grumman Corp.'s B-2 division in Peco Rivera, Calif.

"It's the tool I've waited for a long time," said Mike Crone, a consultant and professor at the DeVry Institute of Technology in Atlanta. But Crone also wanted to see a C++ version.

Borland would not commit to providing a C++ version.

Separately at the conference, Borland promised to ship a variety of client-server tools, databases, and language products this year and next, including:

- a 16-bit version of InterBase;
- a language code-named Borland C++ 4.5 with support for OLE 2.0 to ship this fall, and
- a single-user InterBase 4.0, now being referred to as Inter-



The Delphi 95 object inspector displays object properties as well as properties of queries.

Base 95, for Windows 3.1 as well as multiple-user versions for Windows NT, NetWare, OS 2, and Chicago.

Borland briefly demonstrated dBase V for DOS, which the company said will ship at the same time as dBase for Windows. Both products will be for-

mally announced at PC Expo, company sources said.

Developers familiar with dBase for Windows said the product would not ship this month. "This product will not ship until it's rock solid," said Borland chairman, president, and CEO Philippe Kahn.

# IBM, Microsoft bolster desktop customization

## Personal OS/2 spices up color schemes, icons

By DOUG BARNEY

Following the trend toward more customizable desktops and aiming to improve OS/2 performance, IBM has started full-scale beta testing of Personal OS/2.

The company is distributing the beta through software bulletin boards so users can simply download the software and take it for a whirl.

The target machine for this version, according to letters sent to beta testers, is a system with 4MB of RAM and a 120MB hard drive. This round of beta testing will be completed by the end of July.

Users who download the beta will see immediate differences. For those who like a custom look, OS/2 will boast a new color palette with more than 100 colors.

Users can choose colors for borders, backgrounds, and icons, and they can also choose from 15 new matching color schemes and wallpaper backgrounds. The original basic color scheme is still available.

IBM insiders said the compa-

ny has been contracting with professional artists to spice up attributes such as icons. Much of this work will be seen in subsequent beta versions of Personal OS/2.

Because most applications running under OS/2 are written for Windows, IBM has developed a Fast Load feature for these programs.

Fast Load is an option that requires additional RAM because the applications code is preloaded into memory to allow it to launch more quickly.

The Personal OS/2 beta includes a host of other useful updates, such as letting users install multiple printers and additional CD-ROM drivers for a number of Philips and Sony CD-ROM drives.

Despite the visible focus on customization features, IBM has still identified its biggest goal for Personal OS/2 as improving system performance and reducing memory requirements.

The company refers to the current beta as the OS/2 Performance Beta I, Version 2.99. It is possible, based upon this version number, that the final version will be called OS/2 3.0.

The current version of IBM's Personal OS/2 can be ordered by contacting the company at (800) 251-2177, or the beta can be downloaded from Compu-

## Shortcuts help Chicago launch multiple apps with one button

By DOUG BARNEY

This is a follow-up to last week's technical analysis (see "Microsoft unhinges secret door to Chicago; program to prevent crashes," June 6, page 21) to detail information recently circulated by Microsoft Corp. in a 300-page Reviewer's Guide in preparation for the release of beta versions of its Chicago Windows upgrade.

More than 20,000 users should see the first betas of Chicago this month, according to Microsoft officials.

Microsoft's upgrade, like IBM's Personal OS/2 (see story this page), promises to offer users greater customization capabilities. One of the key new features of Chicago is the capability to set up systems based on multiple applications that can be launched with a single button.

For example, a user can drag and drop word processing, spreadsheet, and graphics files related to a particular project into a single folder and launch the entire batch from a custom

icon, said Rogers Weed, Chicago product manager.

Microsoft calls this approach Shortcuts. The basic concept is to build a shortcut to a Chicago object, including applications, devices, and files and place a Shortcut icon anywhere on-screen.

The Shortcut, which could be an icon named "Things to Do," points to related objects. Although Shortcut icons look like

any other icon, they include a small "jump" arrow on the lower left-hand side. The object represented by the icon does not depend on the Shortcut and is not altered, even if the Shortcut icon is deleted.

This customizability is part of Microsoft's document-oriented approach, where it is easier to work with a document or a group of related files that constitute a compound document. For instance, under the Start button there is a Documents menu that shows the 15 most recently used files.

Microsoft aims to make it easy. See CHICAGO, page 29

TECH ANALYSIS



## PIPELINE from page 43

## SHIPPING

**VocalChat connects workgroups by audio**

Vocafac Inc., in Northvale, N.J., is now shipping VocalChat 2.0, software that enables members of a networked workgroup to use voice mail and audioconferencing. The software is priced at \$239 for a 10-user license. It runs on any Microsoft Corp. Windows 3.1-compatible, audio-equipped PC in NetWare 2.x, 3.x, or 4.x networks. (201) 768-9400.

**Thoroughbred Software International Inc.** is shipping a new version of Gateway To Windows, a tool for communications between Windows applications and those created with Unix-based Business Basic. Version 3.16 of the gateway allows a Windows PC, attached through a LAN or serial connection to a Unix host, to use host data in a Windows application. Pricing for the product ranges from \$700 to \$14,000 depending on the number of workstations and the system configuration. (908) 560-1377.

**Desktop Data Inc.** will introduce next month NewsEdge/Notes, Release 2, an upgrade to its information delivery system that is easier to use and more powerful. The new version will feature more than 10,000 predefined company, industry, and news categories from 260 business publications. Release 2 will also feature a revised interface that duplicates the physical look of several of the publications. (617) 890-0042.

## IN PARTNERSHIP

**Sprint, EDS studying possible cooperation**

Sprint Corp. and Electronic Data Systems Corp. last week confirmed that they are no longer considering a merger but are continuing to explore other forms of a strategic relationship. This confirmation comes in the wake of disclosure that the companies were in broad discussions, which included a possible merger of equals.

**Delrina Corp.** is teaming up with BellSouth Corp.'s MobileComm subsidiary to deliver "intelligent wireless paging" — a set of services for mobile PC users that includes fax, forms, and data communications. Delrina will add support for MobilComm's paging network in future versions of the company's communications products. These products will allow PC users to send and receive alphanumeric pages and be notified when electronic mail or faxes are received. Neither Delrina nor MobilComm would commit to a shipping date. (800) 268-6082.

**Hilgraeve simplifies communications**

HyperAccess upgrade automatically senses and sets key parameters

BY STEVE POLLI

A new version of Hilgraeve Inc.'s communications software will offer in July features for simplified connection to remote systems, the Internet, and on-line services.

HyperAccess 2.0 for Windows, priced at \$149 per copy, will be offered free to users who purchased the previous version within the past 60 days. Others may upgrade for between \$30

and \$50, depending on the version.

The new CommSense feature offers easy connectivity to on-line services, remote systems, and networks. The feature automatically senses and sets parameters such as parity, stop bits, and data bits.

Version 2.0 also adds an Internet session to the HyperAccess phone book, supported by Hilgraeve's use of the Winsock TCP/IP interface.

Other new HyperAccess features include shared modem use, support for RSA encryption, and support for Windows Message Pad functions. The software's file transfer mode checks for several hundred known viruses.

Hilgraeve also announced it began shipping KopyKat. Version 1.0, a remote control package for OS/2 systems. Intended for help desk and collaborative work applications, a two-user

KopyKat package is priced at \$199.

Separately, Microsoft Corp. announced that Hilgraeve is developing the communications software application to be used in the upcoming Windows 4.0. Certain undisclosed features from HyperAccess 2.0 will be included in the Windows 4.0 application.

Hilgraeve Inc. has headquarters in Monroe, Mich., and can be reached at (800) 826-2760.

## NLSP / from page 43

**NLSP WANs ready soon**

also automatically know the shortest route across a WAN.

"This kind of automatic routing of traffic can dramatically increase performance for many types of WAN traffic," Hargundeguy said. NLSP will also remember the route for the return trip, he added.

NLSP will also be available as a Network Loadable Module (NLM) for NetWare 3.x and included in NetWare 4.1 when the software upgrade ships in the fourth quarter. With it, routers will broadcast only when there are changes to the devices. Now, routers continually send out broadcasts to notify other devices of their presence, Hargundeguy said.

The result, in essence, is that WAN managers can tune their networks to extend their capacity or improve response time. It also provides an added level of fault tolerance to wide area communications, because if a router fails NLSP can help find an alternate route for the communication.

"The problem is that IPX was intended to be a LAN protocol, not something users would run over wide-area networks," said Laurent Pocalin, Novell director

of strategic relationships.

Users quickly found that their expensive wide-area links were getting congested by router service advertisements being broadcast constantly to all devices on LAN internets.

"It's just not rational to run IPX over a wide-area enterprise-wide network," Nolle said. "But NLSP solves many problems."

Andy Gottlieb, a product line manager with 3Com, said that users with large networks ran into problems but users with small networks hardly noticed anything.

Proteon Corp., based in Westboro, Mass., also expects to ship NLSP software by year's end, officials said.

Paulina Knibbe, software product manager for Cisco, said the vendor's routers will include support for "next-generation routing protocols such as NLSP," but would not say when.

Dana Rasmussen, senior product manager for PC protocols at Wellfleet, said the company will offer NLSP support as part of a major cross-product line software release slated for early next year. □

**NLSP provides an added level of fault tolerance to communications.**

## HP / from page 43

**Operations Center supports LANs**

in a central location."

Management expertise can be physically grouped in one location, with multiple Operations Center consoles there dividing up the management by operator expertise.

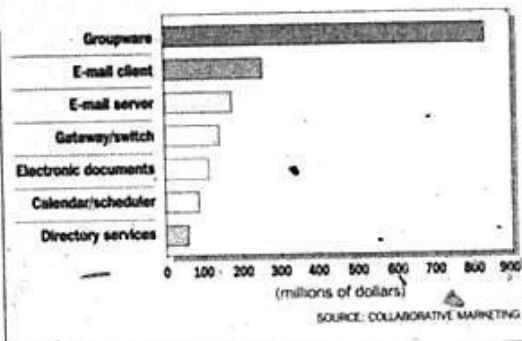
Other new features include support for AT&T System 3000, a server formerly sold by NCR, and Sun Solaris 2.3 platforms,

tools for off-line analysis; improved performance; and message-handling templates.

HP also enhanced its backup, storage, and software distribution software to better work with Operations Center.

OmniBack II, the backup application, was improved with networkwide capabilities, where it was limited to a workgroup;

## Market Spotlight

**Macintosh groupware expanding****Electronic mail-related software sales projections for 1994-96**

Macintosh users are bullish on setting groupware — free-form bulletin boards, workflow, and forms routing — but the trend is likely to be contained at smaller sites.

That's the conclusion of a study from Collaborative Marketing, in Los Altos, Calif. The firm predicted the greatest growth in small and medium-size sites and in education. Enterprise sites are expected to have moderate growth.

"We're wondering whether the Macintosh will be squeezed out of enterprise networks as Windows becomes on par with Macintosh," said John Katsaros, president of Collaborative Marketing.

The market for Mac E-mail and related products represents a \$1.75 billion sales opportunity over the next three years, with E-mail clients and servers together representing more than \$400 million.

Gateway and E-mail switch vendors are expected to generate more than \$100 million in sales, and electronic document distribution products, such as Adobe Systems Inc.'s Acrobat, No Hands Software Inc.'s Common Ground, and Farallon Computing Inc.'s Replica, have an opportunity for more than \$100 million in the Mac market alone. Calendaring and scheduling; directory services; and mobility — defined as modems, wireless equipment, and remote access software — should generate less than \$100 million.

choice or backup by file system or raw disk image when speed is crucial; customizable encryption; and individual file restore from an image backup.

OmniStorage 1.01 was also improved to allow optical media storage with OmniBack. OpenSpool, Version B.01 now allows print requests to travel across WANs and track the progress of a print operation through an on-screen icon.

Software Distributor for distributing, configuring, and re-

moving applications, will now support PCs with Windows and DOS on NetWare and LAN Manager.

OmniBack will ship in September at \$3,800. OmniStorage ships in December for \$12,000. OpenSpool is due in September for \$2,300, and Software Distributor will ship in November for \$2,500.

Hewlett-Packard is headquartered in Palo Alto, Calif., and can be reached at (800) 637-7740.