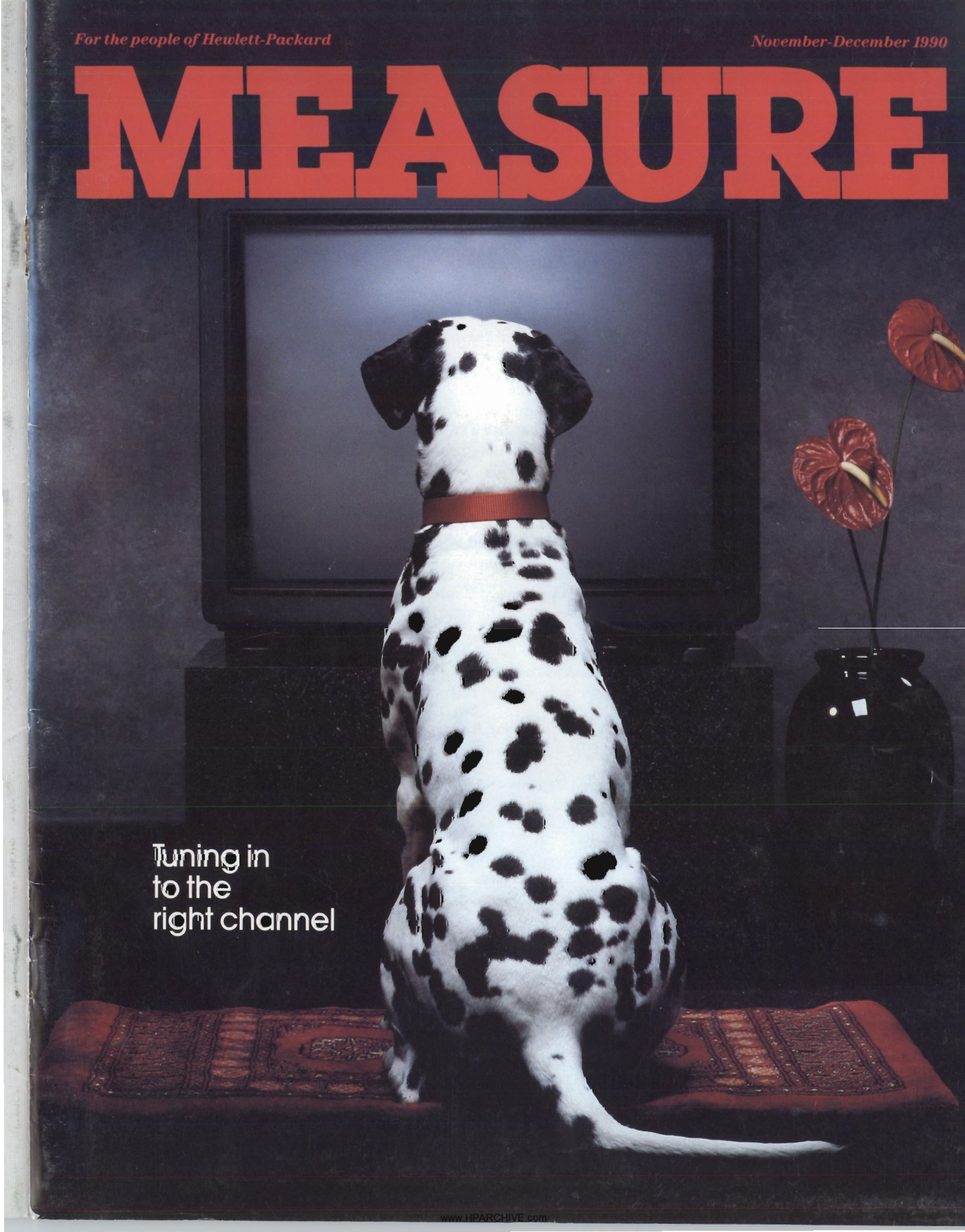


For the people of Hewlett-Packard

November-December 1990

MEASURE



Tuning in
to the
right channel



page 8



page 13



On the cover: TV viewers watching National Football League games this fall saw spots before their eyes. A sporty Dalmatian starred in the first national TV campaign for the HP LaserJet printer family.

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MEASURE

Editor: Jay Coleman	Associate editor: Betty Gerard	Circulation: Karen St. Clair	Contributors: Mary Anne Easley Harvey Gotliffe Michelle McGlocklin Brad Whitworth
Art Director: Annette Yatovitz	Graphic designer: Thomas J. Brown		

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Hewlett-Packard Company is an international manufacturer of measurement and computation products and systems recognized for excellence in quality and support. The company's products and services are used in industry, business, engineering, science, medicine and education in approximately 100 countries. HP employs more than 92,000 people worldwide and had revenue of \$11.9 billion in its 1989 fiscal year.

TUNING IN

to the right channel

By Betty Gerard



At the Computer Plus dealership in Los Altos, California, Neely sales rep Denise Buecheler talks with branch manager Michael Priest about HP help for customer seminars.

Something radical has happened to Hewlett-Packard's relationship with dealers.

What began as the quiet sale of calculators through college bookstores a decade ago has exploded into a big-buck, high-energy dealer channel that accounts for a quarter of HP's worldwide sales.

Most of the company's personal computers and highly acclaimed peripherals, along with calculators, now move through a wide variety of resellers.

The dealer channel started by selling desktop products primarily to home buyers and small businesses. But as the computer industry has matured, many dealers are selling to large

Tuning in

corporations. These dealers handle high-end and multi-user PCs, associated networking products and sophisticated graphical user interfaces such as HP NewWave, with workstations the next likely addition.

To keep from being crowded out, smaller dealers—the industry term is “boutique”—sometimes focus on a specialized niche. It might mean knowing law-office management inside out,

“Dealers are not our customers but our partners.... We’re helping the dealer do business.”

for instance, to give expert advice on computerizing operations. Or the specialty might be computer-aided-design (CAD) PC systems.

Another of the many types of dealers are “superstores,” which serve the self-sufficient computer buyers who just want to pile their purchases in a shopping cart and be off.

This diversity means HP products are sold by dealers to many customers that the company simply would not reach in any other way.

The main reason HP sells more and more through dealers these days is simple: customers want to buy desktop products this way. They are looking for multivendor connectivity, fast delivery, local service and training—and they like dealing with a nearby supplier.

In 1984 nearly 80 percent of HP’s customers bought their PCs and personal peripherals directly from HP. By the end of 1989, 80 percent bought from dealers—a complete reversal in just five years.

The shift from selling products only through HP’s own direct sales force to selling a large percentage through dealers has had some far-reaching



HP rep Robin Whitehead and Mike Marino, senior VP of Atlanta-based NYNEX Business Centers, discuss its Fortune 1000 accounts. The large national dealer has 70-plus locations.

LARRY THOMAS

effects on HP internally, including the recent formation of the Computer Products Organization, which combines the peripherals and PC businesses.

Hard-charging Sales Force 12, which is dedicated to this channel, works differently than the traditional HP direct sales forces. “Dealers are not our customers but our partners,” explains Dick Watts, who has overall responsibility for the dealer channel. “We don’t just sell them products but support them in selling to the user. We’re helping the dealer do business.”

This means providing merchandising, marketing, counsel on stocking, technical support and even inventory-management assistance—whatever it takes to help the dealer maximize the sale of HP products.

For products sold heavily through the dealer channel, achieving acceptable profit margins has required bal-

ancing high discounts with lower field selling costs and division marketing expenses. Peripherals have set the standard for successful management of the channel.

Many dealers carry HP products alongside those of other vendors. It’s head-to-head combat for attention: shelf space, salesperson know-how and preference, customer seminars, promotions and advertising space.

To win a substantial portion of “mind-share,” HP has the Advantage program, which helps dealers with their promotional merchandising and reimburses them for devoting demo space and training time to HP offerings. The Dalmation on *Measure’s* cover is the star of a national TV campaign this fall (for HP LaserJet printers) that dealers can localize in TV, radio and print ads using materials from HP.

As sales through dealers increased tenfold from 1984 to 1990, the volume of orders and dealer emphasis on

quick delivery caused HP to revamp its distribution and logistics:

- In Europe, peripherals are now shipped from Böblingen, Germany, plus a warehouse in Amsterdam, and PCs from Grenoble, France, with supplies kept in stock in the larger countries for rapid response.
- The Asia Pacific territory is served from a distribution point in Singapore.
- In the U.S., an East Coast depot was set up in 1988 as a combined arm of the Direct Marketing Division and the PC Distribution Operation (PCDO). Now the two Northern California entities will combine their logistics functions in a new North American Distribution organization. To expedite shipping of PCs, a new warehouse is going up next to PC production in Roseville, California.

“Doing business with dealers has meant changing the mentality of our manufacturing divisions from build-to-order to ship-from-stock,” says Jim Heeger, PCDO distribution manager.

In the old days, Jim says, customers

“Doing business with dealers has meant changing the mentality of our manufacturing divisions....”

could obtain certain products only from HP—but today dealers have a choice of vendors and “if they can’t get our product, they’ll sell one from someone else.” Availability is the key.

Providing support to users after a sale also has become a far more com-



Potato chips, chocolate chip cookies and chip-bearing computers all go into the cart of customers at Fry's in Palo Alto, California—a serve-yourself superstore.

CHUCK FOX

plex business. While HP insists that support must be made available to end users of its products, the company offers dealers a choice of ways to provide it.

“We have a flexible program that covers all situations,” says Lane Nonnenberg, marketing manager for Worldwide Customer Support Operations.

He points out that dealers want to choose their own support mechanism. Some want to employ their own repair people to provide complete support to their own customers. Others don’t want to do support but do want to maintain the end-relationship with the customer. They have HP come in behind the scenes to provide that support. Still others prefer to resell HP support contracts, thus putting the user in direct touch with HP.

HP’s solid reputation for service and support is a decided plus in the dealer arena, where many small competitors provide sketchy support. This Septem-

ber HP raised the stakes even higher when it became the first—and thus far, the only—vendor to make multivendor local-area network (LAN) support services available to dealers.

Included in the HP Dealer Premier Network Support Program are cabling support for customers’ existing and new LANs, hardware support of standard multivendor PCs and peripherals, and support of network operating systems. Many dealers want to get into LANs for their customers but hesitate to make the large investment needed to provide this support themselves. The new program has been greeted enthusiastically.

If you’re getting the idea that the dealers to whom HP sells are quite different from the usual Main Street store, you’re right. Only one-fourth of them look anything like a retail establishment. The bulk of them have “out-bound” sales forces that, in the U.S., call on Fortune 1000 companies and

Tuning in

occupy offices that look like an HP field office.

Unlike sellers of VCRs and appliances, these dealers now sell primarily to businesses rather than to the general public. "We're not in a business where someone reads the Sunday paper and decides to buy an HP printer," says Robert Langerman, promotional and sales training manager for Channel Marketing.

If an office needs computer equipment, a dealer's sales rep will be called in to discuss it. The installed base is already so large that people are constantly buying upgrades from the same dealer. "These users don't go down to the mall to buy computing equipment," Robert says.

And, he adds, when you're running a business you want something that doesn't break—"and HP has the most reliable PCs in the world." (The readers of *PC Magazine* rated HP No. 1 in reliability in a recent survey.)

HP's Dealer Channel Management Committee (which represents the field, marketing and divisions) has set the strategy goal of becoming No. 2 in

"Look at how the channel is segmenting in many ways today...."

the dealer channel by 1994. The goal is in sight: in 1989, according to the International Data Corporation (IDC), "the HP marketing programs and the quality dealers they support have helped make HP the third leading supplier (in total revenue dollars) of personal-computing products for the dealer channel."

For Lee Ray Massey, who heads Channel Marketing for the U.S., those were sweet words indeed. His organi-



Vincent Wajs, GM of INFOPOINT in Paris, shares his quarterly sales plan with HP France's Alain Gayral.

zation is responsible for working with divisions to create U.S. dealer preference to sell HP products, using a wide variety of programs and communications tools.

With customer buying patterns changing in response to new technologies and greater ease of use, "HP needs to stay alert to anticipate what's coming and meet customer needs by taking advantage of the wide range of dealers," Lee Ray believes.

Phil Hayes, in Computer Products marketing, thinks marketing programs will become even more important as more types of products move through the channel.

"When you enter a new market," he says, "the early adoptees are really up on technology—they want the newest and greatest. We've been riding that wave for six years. Now we must go after the 'laggards,' who have been waiting for ease of use to increase. Where a lot of people have been coming to you, you now have to attract them."

The dramatic success of the HP LaserJet printer family was of course a stimulus to HP's entire activity in

Soon we'll be putting spots before your eyes.

The best kind of spots. The fall Hewlett-Packard LaserJet printers will be more visible than ever because we're adding television to our popular distribution print campaign. The hard to miss TV spots, featuring the LaserJet line, do a great job of communicating HP's bottom quality and leadership in laser printing. They're sure to generate a lot of interest. Traffic. And sales.

The commercials will be tracked by an aggressive television schedule. But that's just the start. Authorized HP dealers will have the opportunity to capitalize on this national exposure with HP's co-op TV ads based on the same concept. You'll be provided with two 30-second commercials that can easily be tailored for your store. Of course, we'll be increasing LaserJet distribution with an newspapers and magazines.

So be getting over information in your September HP

As these 1-page mailings, if you want all the details, talk to your local Hewlett-Packard sales or marketing communications representative.

Watch for our exciting new spots. And get ready for a busy fall. HP is out to get LaserJet in front of everyone.

**HEWLETT
PACKARD**

Dealers can use the Dalmation from HP's national TV campaign this fall in local print ads and direct mail.

the dealer channel. Dealers pick and choose which products they carry, but the popular printers won acceptance for other HP products.

The Dealer Sales Center under Dave Goodreau receives some 18,000 questions monthly. Those most commonly asked are fed to the HP News Network (HPNN), an electronic network developed by David Akers to feed information about new products, promotions, price changes and other current data to dealers without charge. It has now been expanded from the U.S. to France, England, Germany, Singapore and Australia.

In Boise, Idaho, Peripherals Assist answers questions from customers and dealers, and provides product and application information via facsimile.

For a reality check on what dealers need to be successful, a 10-person Dealer Advisory Council meets twice a year. They are friendly, but candid, in discussing issues.

In Europe, a Very Important Dealer (VID) get-together is held each year to build relationships between HP



TOM UPTON

At HPNN control in Santa Clara, California, engineers Tamra Renfrow and Jey Yelland take a shift informing dealers via an electronic network.

and the top 100 or so dealers across Europe. The VID steering committee that plans the event, held in 1990 in Monte Carlo this November, is always headed by a dealer. A European Partnership Advisory Council also meets several times a year, serving as a sounding board for strategic planning.

Alex Sozonoff, who is responsible for the European dealer channel, believes strongly in a partnership relationship with dealers. At press time, he was developing a document named "Vision 93" to be shared internally and with the partners.

"Things are changing so rapidly that all companies are struggling for a new identity," Alex believes. "As a company, what can we do and where should we be? We need a vision as a handle we can pull ourselves by."

European and Intercontinental Operations share the need to localize products and to train their dealers and customers. Keith Watson, who runs the dealer channel for Intercon, says one challenge to developing the reseller market in Japan is the lack of localized

products. The first Kanji language PC was introduced a year ago. A unique AX operating system for the HP Vectra PC, peculiar to the Japanese computer market, had outstanding orders when it was introduced this May.

In Intercon, which like Europe doesn't have large chains, many dealers are manufacturing and adding hardware. Says Keith, "Look at how the channel is segmenting in many ways today—with resellers who focus on drafting plotters or CAD applications and may sell to other resellers; wholesalers; office equipment specialists; and more value-added accounting systems, manufacturing systems and high-end PCs."

As the personal computer becomes more common in large organizations, dealers continue to expand their customer base and opportunities. HP recently created the new roles of technical and business consultants to help.

Keeping dealers aware of what training and education is available from HP

is the job of Alan Maitland, a Neely regional technical consultant for the Dealer Premier Support Program. He recently did a guest spot on ComputerLand's TV satellite network to some 300 outlets, showing how to install HP's AppleTalk Interface and running a two-hour call-in game show. "I gained a totally new respect for talk-show hosts," he admits.

Christina Isacson of HP Sweden, a member of HP's President's Club for top sales people worldwide, has moved from a Sales Force 12 rep role to serving as a "business partner" for dealers. She gets more involved in their economic organization and goals.

"The biggest change I see is that dealers don't sell boxes any more, but sell solutions," Christina says. "They must also become more specialized in areas like networking as competition gets harder and the margins decrease.

"That means HP will be more important than ever as a partner in the future." ■



BRUCE ANDERSON

Phil McLaughlin from the HP Waltham, Massachusetts, site and his wife, Barbara, can get benefits information any time of day by using TABS.

Keeping TABS on your benefits

By Michelle McGlocklin

It's Sunday evening and Alice Allen is at home balancing her checkbook, planning the family vacation and paying bills.

While reviewing her financial plan, she discovers she needs information about her next payroll check and flexible-time-off (FTO) balance. Although it's 9 p.m., Alice literally has this information at her fingertips as she picks up the phone and dials TABS.

"I use TABS for everything," says Alice, a procurement coordinator in facilities purchasing at HP's Boise (Idaho) site. "It answers all the questions I used to ask my benefits rep, and it's available on a 24-hour basis so I don't need to worry about remembering to contact personnel while I'm at work."

What is TABS? It's HP's new Telephone-Activated Benefits System, designed to communicate benefits

information to HP's U.S. employees via a Touch-Tone phone.

TABS, a computer-based system, provides quick, easy access to both general and account-specific information about payroll, TaxCAP and HP's medical, stock-purchase and retirement plans.

"TABS allows employees to get information about their benefits on their own time, when they need it," says Jim Andrews, corporate benefits projects coordinator and co-leader of TABS. "It saves having to call a benefits rep who may not be available or who may not have the information handy."

TABS was introduced at five pilot sites—New Jersey Division, Boise site, Neely Sales, Midwest Sales and corporate offices—in the fall of 1989. The nationwide rollout began in May 1990. By September, all HP U.S. entities had the TABS system in place. (Though TABS is presently U.S.-wide, there is potential for future worldwide use.)

"We've been responsive to employee needs with TABS," says Lee Pacheco, corporate benefits information-technology engineer, and Jim's co-leader. "Based on employee feedback from the pilot sites, we went from five-days-a-week, 12-hours-a-day system availability to seven days a week, 24 hours a day. Recently we had more than 1,700 calls in one 24-hour period. TABS averages about 5,000 calls per week. Employees even call at midnight on Sundays to get their benefits information."

"One of the criticisms I had of TABS early on was its limited hours," says Bob Rudd, senior customer engineer in

"Now that (TABS) is available 24 hours a day, it's become a useful and valuable tool."

the Los Angeles sales office. "I usually don't have time during the day to follow up on personnel things. Now that it's available 24 hours a day, it's become a useful and valuable tool."

Nancy LaMarca, benefits systems and administration manager, brought TABS to HP. "Other companies use interactive voice-response systems and I felt we could build one at HP to suit our employees' needs," she says. "A service like TABS gives employees a lot of flexibility while ridding them of unnecessary paperwork and third-party interaction."

The highest percentage of employees using TABS is at the Waltham (Massachusetts) site, with more than 55 percent participation.

"We work a lot of overtime in the shipping department and it's helpful to

TABS TELEPHONE-ACTIVATED BENEFITS SYSTEM

know what my paycheck is going to be," says Waltham's Phil McLaughlin. "A lot of times you get so busy you don't have the time to go to personnel. It's nice to know that the information is accessible at any time by using your phone at home."

The cost to implement TABS was "relatively small," Nancy says, because it taps into existing databases. The system uses two HP Vectra PCs connected to an HP 3000 minicomputer. Nancy, Jim and Lee designed the program. "A lot of people have worked on this project and it really was an HP team effort," Nancy says. "But as far as the day-to-day operation of the system, it's basically handled by two guys and two HP Vectras."

An additional benefit of TABS is that it allows payroll and benefits reps to focus on the most critical issues, rather than spend time answering thousands of routine inquiries each year. "If you look at the number of transactions that payroll and benefits reps have to process in one month—it's phenomenal," Jim says. "TABS allows them to be more productive without sacrificing employees' information needs."

The next step for TABS is interactivity—an enhancement which will allow employees not only to get the information they need, but to act on it as well. For example, employees will be able to make changes in their TaxCAP and stock percentages directly through

TABS, rather than fill out the paperwork required by personnel.

"TABS is a significant step toward a comprehensive program of self-paced, interactive payroll and benefits transactions," says Pete Peterson, HP's personnel director. Interactivity is scheduled for January 1991.

The future of TABS includes not only technological innovations but a potential for worldwide implementation. "Currently the languages available in TABS are English, French and Spanish," Jim says. "Japan and the U.K. have talked about implementing it, but their databases are different so they would have to develop it locally."

Future possibilities also include addressing special audiences such as

"TABS is a beautiful example of adding value, providing better service and reducing cost."

part-time employees and employees on leave. (TABS currently is available only for regular full-time employees on active status.)

"If we are to remain an employer of choice, we need to be creative and continue to develop tools like TABS," Pete says. "TABS is a beautiful example of adding value, improving service and, at the same time, reducing cost." ■

(Michelle McGlocklin, a San Jose State University student, was a 1990 summer intern in HP's Corporate Public Relations department. —Editor)

We're not just toying around

By Harvey Gotliffe

HP and one of England's leading toy manufacturers join forces to reach a new market.



Britains Petite workers in Nottingham, England, are busiest before the holiday season, inserting HP's ink-jet cartridges into lightweight electronic typewriters.

A 15-year-old girl in Barcelona, Spain, anxiously opens her brightly wrapped present and happily squeals out, "Madre! Padre! Muchas gracias!," as she takes the new lightweight electronic typewriter from the box.

Like her young counterparts in France, Germany, Sweden and England, she probably won't notice that the typewriter was manufactured in Nottingham, England, by Britains Petite Limited.

She may not realize that when her fingers hit the keys, each crisp and clearly typed letter on the paper was created by an ink-jet cartridge developed and produced by Hewlett-Packard's Ink-Jet Components Division operation in Corvallis, Oregon.

In all probability, she won't be the only family member using one of the two models of Petite electronic typewriters produced in Robin Hood's realm. For although they are built by one of England's leading toy manufacturers, when HP and Britains Petite got together on the typewriter, they were not just toying around.

Britains Petite, the largest British-owned company in the toy industry, is the amalgam of two U.K. companies. Britains, which was founded in the 19th century, was recognized around the world as a maker of quality toy soldiers and miniature farmyards. Three years ago it was acquired by Petite.

Petite's toy line includes tea sets, fashion accessories, sewing machines and model kitchens. It also offers toy

office centers, carrying cases and six different typewriters.

Petite began producing mechanical typewriters for children 25 years ago, and now turns out a half million a year.

Before Petite began producing its first electronic typewriter, it faced a problem. At a time when young people were being exposed to computers, how could the company produce an electronic typewriter "designed for children but for use by the whole family"—one that would be up-scale, yet lightweight, easy to maintain and energy efficient?

Petite's design engineers were attracted to the thermal ink-jet printing used by HP in its battery portable ThinkJet printers, and with the reliability of replaceable print cartridges.

To help solve the problem, Ken Barker, purchasing manager for Petite Toys, called Amos Clarke, HP's components business manager in the United Kingdom. They explored how to lower production costs while creating a unique typewriter.

David Knights, HP's major accounts sales manager in the U.K., eagerly became involved from the start. "Local

"We saw the relationship as an opportunity to expose customers to HP's ink-jet technology."

interaction matching an OEM (original-equipment manufacturer) is a challenge," David explains, "because you need to match specific features to customer needs."

David sent a fax to John Cronkrite, component OEM channel manager in



Petite electronic typewriters are designed for the younger set, but used by the entire family. Typewriter characters include English, French, German, Swedish and Spanish.

Corvallis, asking if the operation was interested in pursuing the typewriter project with Britains Petite.

Corvallis management hesitated at first. "There were some concerns about HP's image as a high-tech company and about developing a relationship with a toy company," John admitted. "However, after reviewing Petite's product line plans, we saw the relationship as an opportunity to give the thermal ink-jet technology exposure to current and future customers." Since then the operation has been an integral part of the client relationship.

HP employees in Corvallis were involved in the electronic typewriter's development, an updated version and

problem-solving along the way (see story on page 12).

The updated model, the Petite Electronic Typewriter, took 18 months to develop. One of its special features is an HP ink-jet cartridge which also is used in printers. An electrical charge, activated by the keys, sends instantaneously drying ink onto the paper. By using an electronically generated signal, characters can be in any language. Currently, French and English are on one chip, with German, Swedish and Spanish on another. By snipping a wire on the Chinese-made circuit boards, an assembler easily can convert an

Toying around

English-language typewriter into a French-language instrument.

Production began in mid-1988, with 1,000 units sold during the first year. In 1989, Britains Petite sold more than 78,000 units—half to the English market and the remainder exported, primarily to France.

Britains Petite employs 100 people in London and 300 at its two Nottingham sites.

A recently introduced deluxe version, the Electronic Typewriter Plus,

The production lines are busiest from August through November when the factory builds for holiday sales.

also uses HP's ink-jet technology. Along with Petite's four mechanical typewriter models, the production lines are the busiest from August through November when the factory builds family gifts for holiday sales.

Whether the young recipients say "gracias," "merci," "danke schoen," "tack sa mycket" or "thank you," they soon will embark on a creative journey. Each time those crisp and clear, professional-looking words appear on paper the users also can thank HP Ink Cartridge Part No. 51604A. For when this British customer needed help solving a problem, HP people were there—and they weren't just toying around. ■

(Harvey Gottliffe is a journalism professor at San Jose State University and head of the magazine department. This is his first Measure story. —Editor)



JOHN O'CONNOR

HP's John Cronkrite (right) discusses a potential problem with (from left) HP's John Dunn and David Knights, and Britains Petite's John Procter, Ken Barker and Frank Hazzledine.

What have you done for me lately?

After Hewlett-Packard helped solve Britains-Petite's initial problems, it would have been quite unusual if the companies' relationship had been completely trouble-free. So when a problem recently arose at Petite, HP took the opportunity to show its customer commitment and its problem-solving capabilities.

Earlier this year, Petite discovered missing dots on the printed page when it tested the typewriters on the assembly line.

With the Nottingham plant getting ready for the 1990 holiday-season production, Ken Barker, purchasing manager for Petite Toys, was worried. "When a typewriter that's going for Christmas sales doesn't work, there's an unhappy child and an unhappy customer."

In May, Ken discussed the problem with HP's David Knights, who immediately contacted John Cronkrite in Corvallis, Oregon. And the trio which helped initiate the project began working together again.

In Petite's conference room in Nottingham, over tea, coffee and cakes, the two teams mulled over the situation. David, HP's major accounts sales manager for ink-jet components in England, was joined by John Cronkrite and Dr. John Dunn, development engineer, both from HP's Ink-Jet Components

Division in Corvallis.

Ken presented the problem in detail, and quality manager Frank Hazzledine described the testing Petite had conducted to locate the source of the trouble. After John Procter, manufacturing engineering manager, offered his insight, John Dunn took over.

John carefully explained HP's extensive quality-assurance program. His presentation captured the client's attention. The morning meeting helped unify the two teams.

"We can't solve problems like this over the phone," Frank said. "You can't beat the face-to-face talking."

Petite stopped production at HP's recommendation. The HP team spent the afternoon scrutinizing the assembly operations, talking with the workers and inspecting randomly selected ink-jet cartridges. Eventually, the team determined that it was neither a Britains Petite nor an HP issue, but one caused by a new Petite vendor.

Was the trans-Atlantic effort worth it?

"From our point of view Hewlett-Packard took our problem as seriously as we wanted them to," Ken said. "We're pleased that they devoted a whole day to us. We're glad that they were here to help work things out."

It all started with a \$5 donation

By Mary Anne Easley

Hewlett-Packard was barely a year old in 1940 when co-founder Dave Packard's wife, Lu, recorded HP's first "grant" in the company ledger—a \$5 miscellaneous gift.

In 1989 HP gave a record \$74.5 million—\$65.3 million of that to education—to rank as one of the most generous U.S. corporations.

Making a contribution is part of the very fabric of HP. The company's citizenship objective spells out HP's commitment: to honor our obligations to society by being an economic, intellectual and social asset to each nation and each community in which we operate.

As part of its commitment, HP established the separately incorporated Hewlett-Packard Company Foundation in 1979. Its express purpose is to ensure continued giving during periods of poor business conditions.

HP contributions are directed, for the most part, by committees of employee volunteers. And because the company relies heavily on equipment grants—which allow HP to be considerably more generous—employee volunteers in the sales and support organizations are critical to ensuring that the equipment is configured, installed and operated properly to satisfy the needs of recipient organizations.

"Our philanthropy program wouldn't be possible without the unselfish volunteer efforts of hundreds of HP employees," says Rod Carlson, director of Corporate Grants.

On the following pages *Measure* shows just a few samples of HP's worldwide generosity.

(Mary Anne Easley is HP's manager of PR Services in Corporate Public Relations. —Editor)



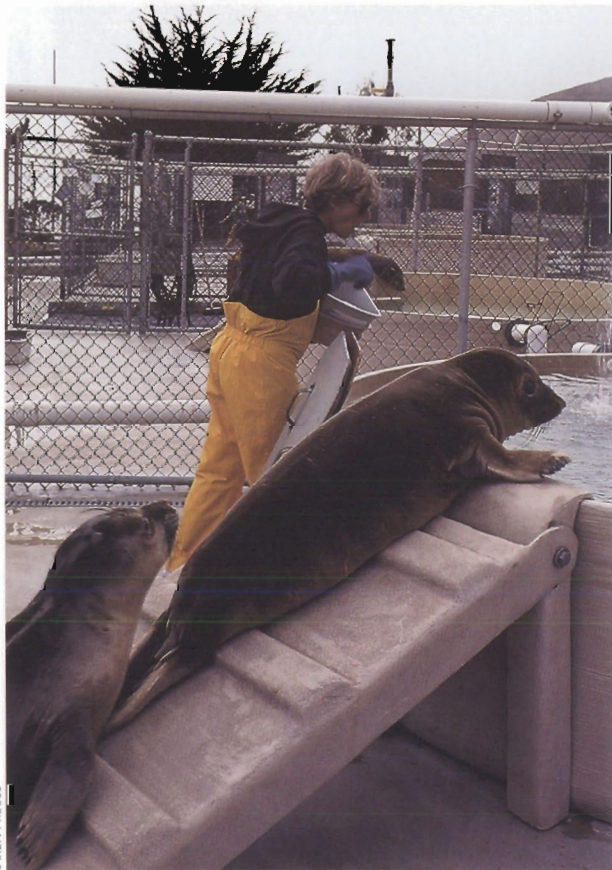
STAN SINCLAIR

above

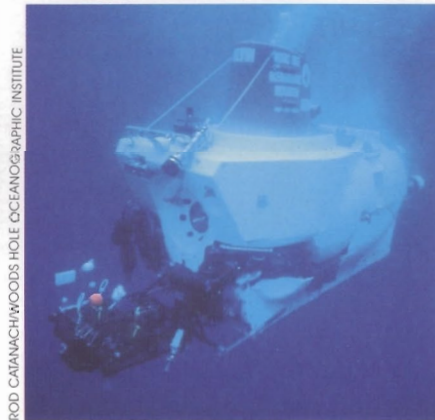
The Hewlett-Packard Science Wing at the Discovery Center of Idaho includes dozens of hands-on exhibits—many built by engineers at the HP Boise site.



COURTESY OF TEARS OF JOY PUPPET THEATRE



KAREN PREUSS



ROD CATANACH/WOODS HOLE OCEANOGRAPHIC INSTITUTE

above

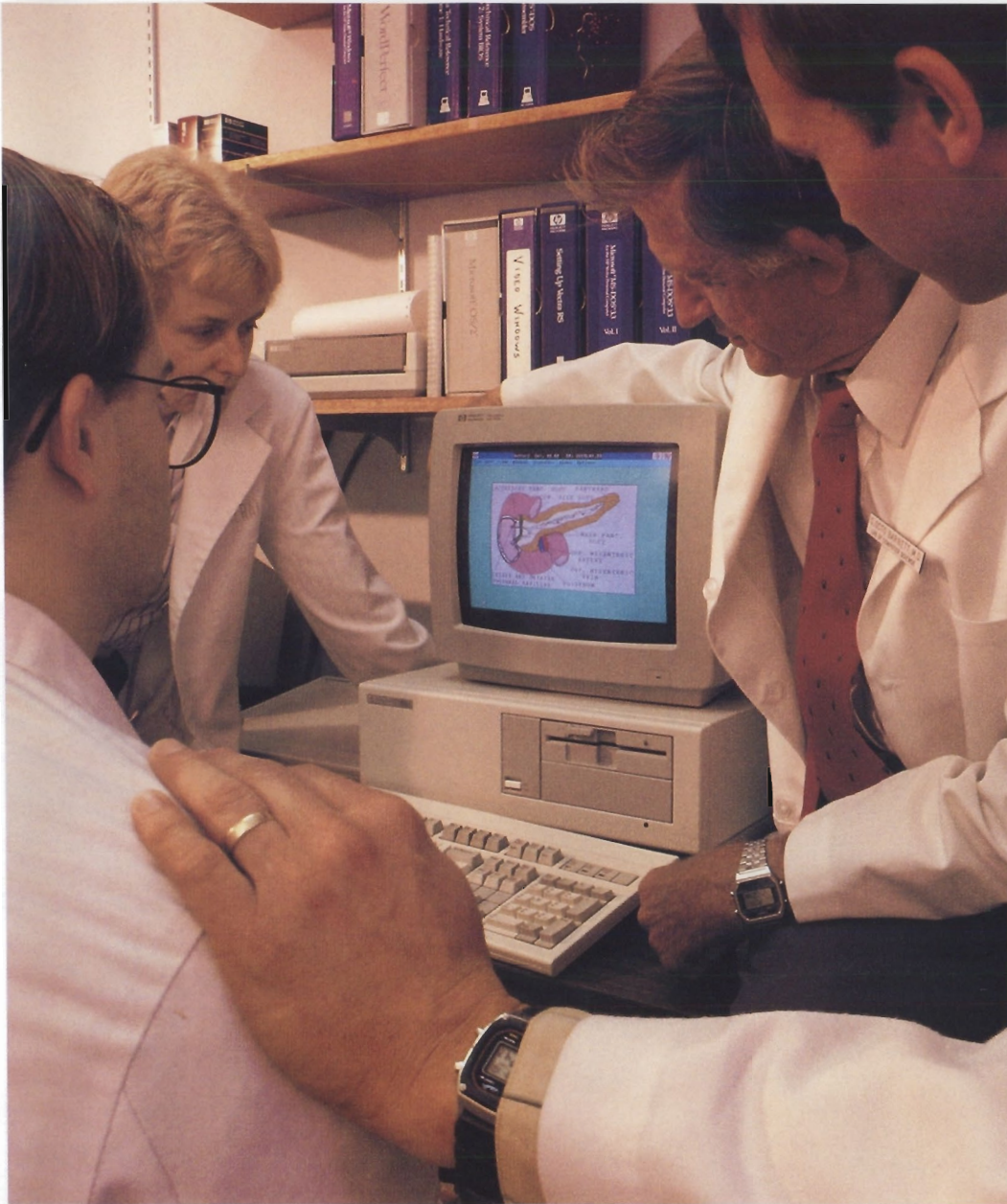
Using puppets to present diversity issues, the Tears of Joy Theatre builds bridges of understanding among its youthful audiences. Donations from HP's Vancouver (Washington) Division help fund the Vancouver-based troupe.

left

HP donated a record \$300,000 to environmental organizations in 1990, including Massachusetts' Woods Hole Oceanographic Institute. Woods Hole uses HP workstations and analytical instruments to study the role of oceans in global climate change, especially the "greenhouse" effect.

left

Feeding time is always a popular event at the Marine Mammal Center in San Rafael, California. HP donated an ultrasound imaging system to the center to aid veterinarians with diagnosis and research.



JOSEPH BRIGNOLO

left

Dr. Octo Barnett (second from right) of the Harvard Medical School uses computer equipment donated by HP to teach the anatomy of the pancreas to physicians-in-training. The HP grant of equipment and cash supports a program designed to significantly enhance medical education.



MICHAEL WILLIAMSON

left

Health-care workers at the Atlanta (Georgia) Community Health Program for the Homeless use an HP 3000 computer system to keep track of homeless people's needs and health problems at Atlanta-area hospitals, clinics and shelters.



JOSEPH BRIGNOLO

right

HP funding, equipment and technical expertise play key roles in a joint industry-academia-government effort to improve the water quality of Europe's Rhine River basin.



RICHARD HARRISON



JOSEPH BRIGNOLO

top and above

Although HP divested its South Africa operations in July 1989, the company established a \$640,000 trust to continue funding philanthropic commitments to educational and medical programs for blacks in that country. The donation assists the Pholoshu primary school in Alexandra, just outside Johannesburg.



left

HP has sponsored science reporting on National Public Radio's popular news magazines "Morning Edition" and "All Things Considered," featuring co-hosts Robert Siegel and Linda Wertheimer.

below

A Yokogawa-Hewlett-Packard grant of more than 50 HP 9000 computers and advanced computer-aided-design software to Sophia University gives mechanical-engineering students access to the latest drafting technology.



YOUR TURN

Measure readers share their views on matters of importance with employees.

Definitely on the right track

Six times a year I look forward to receiving a new issue of *Measure*. I always find it stimulating and informative. However, the article on "Strengthening ties with universities" in the September-October issue was particularly gratifying. It stated that HP provided \$65.3 million for educational support in 1989—the highest amount given by any U.S. corporation.

I am proud to be associated with the organization that contributed more for education than any corporation in the U.S. Considering that we are measured against firms with six to eight times our revenue base, this is a significant philosophical and financial statement. As an active member of HP's local Community Donations Program, I have developed a genuine appreciation for HP's commitment to its citizenship goals. At the local level, I have witnessed the positive impact of HP's dedication to education, science, culture and the arts.

Thanks for your support, HP. You are definitely on the right track.

CHUCK MILES
Roseville, California

Boundless frustration

Voice mail (July-August 1990) has its place, I am sure, but for many of us it is a source of boundless frustration.

Imagine, if you will, you are literally half-way around the world. To phone the office in Boston you have to call from about 8 p.m. onward out there. In your hotel in India you finally get a line out—after half an hour of waiting—

and the call goes through to America.

The person you want is "either on my phone right now or away from my desk." The meter is running. "If you need to talk to someone now, just press 1." The phone is a rotary style, so you give it a whirl. Tick-tick BRRRRP!

The operator tells you that you have just lost your connection and that it will be U.S. \$25, please. Aggravating, frustrating and expensive—that's voice mail. The old days of living, breathing people answering your calls are looking better and better.

MIKE NORTHCOTT
Singapore

The other side of voice mail

In the September-October *Measure*, Henri Komrij draws the wrong conclusion about voice mail's role in an excellent company. Perhaps because MBWA and "informal, open communications" are practiced so well, many people spend little time near their phones. Voice mail is no more one-way than written mail, and it is an ideal substitute for transacting business when parties cannot rendezvous.

I remember trying to contact my HP colleagues before voice mail. Leaving a message was a dreaded chore. Technical terms became garbled, and details were summarized to ease the message-taker's burden. Now, I can leave clear, detailed messages when a colleague is unavailable and can often complete my business without a "live" conversation as the other party relays the information I need to my voice mailbox.

Counter to Mr. Komrij's logic, I would be more apt to accuse HP of unresponsiveness if voice mail were banned during working hours.

TIM CHAMBERS
Colorado Springs, Colorado



Please send mail

Do you have comments about something you've read in *Measure*? Send us your thoughts. If your letter is published, you'll receive a free *Measure* T-shirt (large or X-large).

Address HP Desk letters to Jay Coleman; by company to *Measure* editor, Corporate Public Relations, Building 20BR, Palo Alto. Via regular postal service the address is *Measure*, P.O. Box 10301, Palo Alto, CA 94303-0890 USA. Try to limit your letter to 150 words. We reserve the right to edit letters. Please sign your name and give your location.



ORDINARY PEOPLE

By Brad Whitworth

In his first year as an HP computer salesman, Al Minter ran across a customer in his Tulsa, Oklahoma, territory who nearly caused him to quit. "It was obvious he did not want a black there," Al says. "He called my district manager to have me taken off his account. But my boss said, 'He doesn't dictate to HP who's on his account. You set *him* right, not the other way around.'"

Since that episode 10 years ago, Al has been setting people right regularly, as a top HP salesman and through his personal mission—to help other blacks confront and effectively handle the realities of working in a predominantly white business world. He's writing a book on the subject and offers sage counsel for others to learn from someone who's been in the trenches.

Al is one of six black sales professionals in his sales area (nationwide there are about 65 blacks in sales slots, representing 2.8 percent of the U.S. sales force). Before joining HP in 1980, Al had worked at some of the largest companies in the U.S.: General Motors' GMAC, ITT, American Airlines and Honeywell.

"It's a sad reflection on the business world when the first thing most people notice is the color of my skin," he says. "After that they note my gender, the way I'm dressed, but only then do they start to focus on the professionalism I bring to the job."

Al has found that many whites in the U.S. don't know how to deal with blacks or other minorities in the work place. "Because whites have had limited exposure to other races, they naturally want to stereotype. They assume that blacks excel only at sports and entertainment, and that we're not articulate or worldly," Al says.

This assumption can, in a strange, backward way, actually help a minority

HP sales rep Al Minter has felt the sting of racial discrimination in business. Today he's writing a book he hopes will make life easier for blacks considering careers in the mostly white corporate world.

One of six black sales reps in his area, Al Minter has been a 100% Club member eight times.

Extra

ORDINARY PEOPLE

sales person because part of the sales process is being remembered. "There are customers to whom I've talked on the phone who are shocked when they meet me face to face," Al says. "I can see the surprise in their eyes. They think, 'Did someone else make the phone call and have you show up in person?'"

Al realizes he works in a company that's predominantly white, and calls on customers that are white. Al and Stan Fields, his district sales manager today, have had conversations about

"The civil-rights movement has made blatant bigotry an extremely uncomfortable position."

why Al is the only black salesman in the office, and the pressures it creates.

"The civil-rights movement has made blatant bigotry an extremely uncomfortable position," Stan says. "But Al may still have to work with prejudiced customers who will try to trip him up. If Al consistently presents a positive image, he'll be able to win them over with his performance, his personality and his professionalism."

Al is, by nature, all business. On the front seat of his company car are copies of the latest *Wall Street Journal* and *Barron's*. He devours business and financial publications to be better prepared to sell to executives. "Econ was one of my worst subjects in college, but I've worked hard to make it my specialty now.

"I teach MIS (management information system) directors to start thinking in terms of ROI (return on investment). I show them how they can make their operations a profit center and not a cost center. Then we work as a team



Al, pictured with his family, works hard to help other blacks and serves as a role model for them. "My son will grow up seeing a different picture of what he can do," Al says.

to sell their presidents and executive committees."

"Al has impressed everyone at Petrolite, from the purchasing people to the general manager," says Kim Jones. Kim is manager of MIS and administration at the company's polymers plant in Tulsa. "You don't see many blacks in the computer industry, but Al stands apart from all the sales people because he looks out for our best interests. There've been times when he's recommended a solution to us that resulted in a lower commission for him. That's why my purchasing manager called him 'one of the best.'"

Al's track record of selling to HP's installed base of business-computer customers has been solid. On a wall in his home are the plaques and trophies that demonstrate his accomplishments—including eight years as part of the 100% Club with six of those in the 110% Club.

Al's been ambitious all his life. He grew up with his four brothers and three sisters in St. Louis, Missouri. His

dad held down four jobs as everything from a laborer to a janitor, and his mom worked as a school teacher. "Even though he didn't go to college, my dad emphasized academics," Al says. "I can still remember when he gave me a hard time for getting a 'C' in math."

Al was fascinated early on by technical topics. "In school I could name all the astronauts on the Mercury, Gemini and Apollo missions," he says. "When I graduated from Soldan High, I applied at Parks College of Aeronautical Technology in Kansas City and was accepted. I couldn't afford it at the time, which may have been my good fortune. There were a lot of unemployed aeronautical engineers when I graduated."

So instead, he went to college in St. Louis. To pay for his business degree, Al worked part time for the post office. He graduated from Wright State University in 1975.

When he went to work full time for a company, he discovered obstacles for



Says Stan Fields (right), Al's boss, "If Al consistently presents a positive image, he'll be able to win (customers) over with his performance, his personality and his professionalism."

which he was unprepared. Al, like other minority men and women, faced constant pressure to outperform his white counterparts just to stay even. "You have to overcompensate. That's the only thing a minority can do to avoid being perceived as 'average.'"

Al feels this constant stress probably caused a few of the grey hairs that are sneaking into his mustache and sideburns. Last year Al attended an HP class that helps minority men and women deal more effectively in the white business world. The three-day class in Atlanta, Georgia, was called "Efficacy for Minority Corporate Professionals," although most participants simply call it "Efficacy."

"We worked together to set both professional and personal goals. In part, the class taught us that 'this is the way it is,'" Al says. "Since then I've accepted the way things are, and I know the only way I can have an influence is through consistent performance."

Eastern Sales Region personnel liaison J. Vernon Peterson piloted Efficacy in Rockville, Maryland, in 1988 for the Eastern Sales Region.

"Kids need to be prepared for the different circumstances they'll find in business."

Since then the class has been run by Corporate Affirmative Action and Corporate Education for HP people in Atlanta; Palo Alto, California; and Rolling Meadows, Illinois.

What's Al doing to make things better? "I felt a compelling urge to write a book, so I'm in the process of pulling it together in my spare time. Kids need to be prepared for the different circumstances they'll find in business."

The book draws upon historic research, civil-rights and affirmative-action strides, interpersonal skills development and case studies of successful blacks in business. Al relies heavily on his own experiences and the counseling he's done.

For example, one of his sisters attended Spelman College in Atlanta. She wasn't prepared for what she found in the working world following graduation. "I spent a lot of time coaching her for job interviews," Al says. "She wasn't prepared for face-to-face meetings with white managers. It's something she'd never seen at an all-black school. We talked about how she felt and how to cope. Today, at age 25, she's an accounting supervisor at 3M and is doing real well."

Al feels a deep sense of obligation to help other blacks. "There's not enough return to our community," he says. "I have to serve as a role model, for other blacks and for my family. My son will grow up seeing a different picture of what he can do. He sees my suit and tie

every day and understands the importance of education in becoming successful in the business world.

"I'll be the first to admit that HP took a risk when they hired me 10 years ago. I responded to an ad in the *Tulsa World* and interviewed with three HP people. There are so few blacks with technical or managerial backgrounds, it would have been easy for HP to take yet another white person," Al says. "Besides my contributions to HP's bottom line, I feel I've raised the level of respect for black professionals that wasn't here before I arrived."

Al is betting his book will have the same impact on the next generation of black professionals. ■

(Brad Whitworth is HP's manager of employee communications and served as Measure editor for five years before that.—Editor)

That's incredible: a report card on 10X

by Jay Coleman

It's incredible. By the time you read this article, HP will have either met its 10-year hardware quality-improvement goal—10X—or just missed by a whisker.

And it doesn't matter either way.

"We're within the width of a pen stroke," Craig Walter, director of Corporate Quality, said in October. "I feel very good about our accomplishments because 10X became the cornerstone of all HP improvement programs."

Adds President and CEO John Young, "Whether we reach the goal or not, there's no doubt that HP has benefited from this challenge. It caused us to rethink fundamentally how we manage, and to institutionalize a means for ongoing self-renewal."

What is 10X, why is it so important and why are the results so incredible?

It all began in 1979. Challenges facing HP included higher customer expectations and competitors with low labor costs. An internal survey of HP manufacturing showed that although the company enjoyed a reputation for high quality, 25 percent of HP's manufacturing costs were from reacting to quality problems.

The times called for a new approach to quality. A bold approach. An attention-grabber. A startling goal.



HP's 10-year plan to reduce hardware failures by a factor of 10 is a huge success. The success is measured by the number of failures (down left column) per \$1,000 of product-selling price.

That's when John announced the "stretch objective": a tenfold reduction in the failure rates of HP products during the 1980s. "Bold?" you say. It was almost unfathomable.

"I needed to change radically our expectations about what was possible in terms of quality, and to get people to reexamine their assumptions," John says.

In short, 10X made the entire company examine itself. How do we do our jobs? What are our processes? Who are our customers? (Maybe it's the person at the next work area or in the next department.) How can we work together better?

HP officially passed the 10X deadline on October 31. And the results are impressive:

- Nearly \$1 billion saved in reduced warranty costs.
- \$492 million in cash saved in 1989 that would have been tied up in inventory if inventory levels were the same as 10 years ago.

■ TQC—total quality control—is becoming a way of life in HP.

The classic 10X success story in HP comes from the former Disk Memory Division (DMD) in Boise, Idaho. DMD increased the reliability of its magnetic disk drives by 170 percent in two years.

And it achieved a mean-time-between-failure rate of more than 150,000 hours—or once every 17 years. DMD's success was so impressive that its quality manager was the first non-Japanese ever invited to address the Japanese Union of Scientists and Engineers.

As *Measure* was being written, it was clear that some divisions wouldn't reach the 10X goal by the end of FY90. HP has established a new set of goals for each product group for the '90s to sustain the product-improvement momentum from the '80s.

What's in store for HP in the 1990s? The company will use a Quality Maturity System (QMS) audit to measure how well divisions use the TQC process. It's TQC on TQC.

Yes, the 10-year hardware-improvement results are incredible, John says. But the results aren't the "grand-slam, home run," crowd-cheering type of achievement; they're the collective efforts of thousands of HP employees' hard work, perseverance, incremental improvements, creativity and teamwork, he adds. Those same traits are keys for the decade ahead.

"Lack of complacency, I think, is an HP strength. We always have the urge to make things better. And that will be even more important in the '90s." ■

Charting a course for the '90s

Winning a race—in this case, the race for customers—requires a good strategy and the right positioning.

With that in mind, John Young, HP president and chief executive officer, in October announced a realignment of reporting relationships and new management assignments. The goals, John noted, are to:

- Forge stronger links between HP product organizations and sales forces;
- Improve the communication and implementation of HP's computer-systems strategy;
- Speed decision-making and clarify responsibilities;
- Strengthen the company's management team and prepare for the planned retirements of several senior managers; and
- Reaffirm the importance of teamwork throughout HP.

The changes John outlined include:

- A newly created Computer Systems Organization, headed by Executive Vice President Lew Platt, will stress HP's computer-systems strategy based on RISC (reduced instruction-set computing) technology, open systems,

desktop computing and ease of use.

Before the reorganization, computers based on a UNIX* system and distributed-computing technologies were spread out between both the Networked Systems Sector and the Computer Products Sector. Now the technologies are part of the same organization.

John said that the new organization represents a better alignment of businesses, given today's convergence of

technology. For example, in the Computer Systems Organization, HP's workstations and multiuser systems have begun to use technologies such as the Network Computing System (NCS), which has become a de facto industry standard. NCS was part of HP's workstation business when the

*UNIX is a registered trademark of AT&T in the USA and other countries.





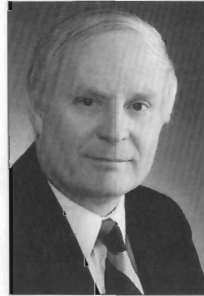
John Young



Dean Morton



Ned Barnholt



Dick Hackborn



Lew Platt

company acquired NCS developer Apollo Computer in 1989.

■ Also new is the Computer Products Organization, under Dick Hackborn. Dick, who has led HP's highly successful Peripherals Group, adds new responsibility for personal computer products.

"Our strong presence in the dealer channel—especially with our market-leading peripherals products—reflects customers' growing preference to buy from local dealers and distributors," John said. "The new organization capitalizes on both of these trends and positions us well for the marketplace of the '90s." Additionally, John added, both PCs and peripherals should have similar cost structures.

To strengthen the links between product organizations and selling activities, the sales forces for Computer Systems (31 and 32) and Computer Products (12 and 34) now report directly to the respective organizations. Sales forces dedicated to specific product lines already exist in HP's Medical, Analytical, Components and Test and Measurement businesses.

■ John also announced the establishment of a Chief Executive Office which has responsibility for strategic and

operational management in all major business organizations. John has asked Dean Morton, executive vice president and chief operating officer, to join him in the new office.

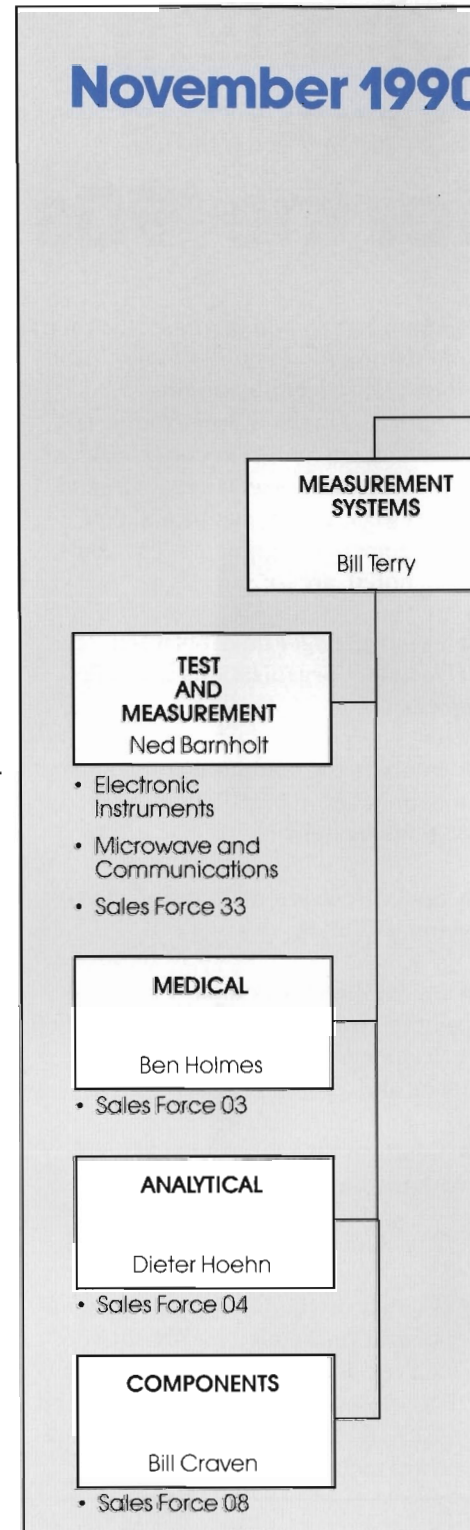
■ Ned Barnholt, vice president and general manager of the Electronic Instruments Group, takes on the newly created position of manager of the Test and Measurement Organization. The organization comprises both electronic instruments and microwave and communications equipment.

Ned reports to Bill Terry, executive vice president and head of the Measurement Systems Sector.

Dean and John will work with Dick Alberding, executive vice president of the Marketing and International Sector, to oversee the transition of the sales forces to their new reporting relationships. The remaining activities of Marketing and International, including Worldwide Customer Support, are unchanged.

The reorganization doesn't affect Business Development, under Executive Vice President John Doyle. Responsibilities for HP Labs, Corporate Finance, Personnel, Legal, Administration and Internal Audit remain unchanged and under their current management. ■

November 1990



Hewlett-Packard Corporate Organization

CHIEF EXECUTIVE OFFICE

John Young
President and Chief Executive Officer
Dean Morton
Executive Vice President and
Chief Operating Officer

COMPUTER PRODUCTS

Dick Hackborn

- Publishing Products
- Hardcopy Technology
- Mass Storage
- Personal Computers
- Handhelds
- Distribution
- Sales Forces 12, 34

COMPUTER SYSTEMS

Lew Platt

- Computer Systems
- Information Networks
- Information Architecture
- Workstations
- Engineering Applications
- Computer Manufacturing
- Sales Forces 31, 32

MARKETING AND INTERNATIONAL

Dick Alberding

- U.S. Field Operations
- Europe/Middle East/Africa Operations
- Intercontinental Operations
- Worldwide Customer Support
- Marketing Operations

BUSINESS DEVELOPMENT

John Doyle

- Circuit Technology

CHIEF FINANCIAL OFFICER

Bob Wayman

ADMINISTRATION

Jack Brigham

HP LABS

Frank Carrubba

PERSONNEL

Pete Peterson

INTERNAL AUDIT

George Abbott

LETTER FROM JOHN YOUNG

President John Young writes about HP's new organizational changes.

SAM MAVERICK



Greg and Diana Young, two of President John Young's children, and HP co-founder Dave Packard join John at an American Electronics Association (AEA) dinner in September. The AEA awarded John its highest honor, the Medal of Achievement, for his "significant contributions to the advancement of electronics and for distinguished service to the community, the industry and to humankind."

In October, I announced a number of organizational changes which should help better position Hewlett-Packard for the 1990s. You'll find those changes summarized on pages 23-25.

I'd like to use this space in *Measure* to explain in more detail *why* we made those changes.

I'm fortunate to be able to travel throughout HP extensively during the course of a year. I seek out opportunities to meet with employee groups and they're not shy about telling me what they think is right with HP—and what could stand some improvement. Based on conversations with many HP people and my evaluation of the situation—together with evaluations from other HP managers—I believe the changes we announced in October will be the keys to our success in the years ahead.

The first—consolidating our computer-systems activities under Lew Platt—makes a great deal of sense. Our workstations and multiuser sys-

tems are converging on a common set of technologies, including operating systems, networking, user interfaces and the same distributed-computing capabilities. In addition, we're seeing that many customers want to buy workstations for non-technical applications.

The new structure of the Computer Systems Organization will make it easier to unify our efforts. I believe this new alignment also increases our likelihood of winning in both the workstation and minicomputer markets—goals that remain constant in the midst of organizational change.

The simpler structure and consolidation of key technologies also will help us make decisions faster and will clarify who's responsible for carrying

"We must be able to execute our decisions quickly and flawlessly."

them out. We're increasingly competing against nimble "niche" competitors, and we must be able to execute our decisions quickly and flawlessly. That's why we need to continue refining and simplifying the HP organization in the months ahead.

The new Computer Products Organization under Dick Hackborn also presents advantages. Both PCs and personal peripherals flow primarily through the dealer channel, through which sales are growing very rapidly. This new structure allows us to approach that channel in a more cohesive way.

Similarly, our peripherals people are well acquainted with the cost and expense structures needed to succeed in the dealer channel. So there's a good opportunity to share best practices.

Dick's experience and insight will be helpful to HP's PC business.

By aligning our field sales forces directly with their respective product organizations, we're creating tighter links between product strategies and our sales activities. This approach gives our managers more direct control over the resources that will determine the success of their businesses.

Our Medical, Analytical and Components groups have achieved good results with their dedicated sales forces for some time now, and Test and Measurement recently announced a similar structure that took effect November 1. Ned Barnholt's new role as head of the Test and Measurement Organization will further strengthen Bill Terry's proven successful team.

An expanded Chief Executive Office will provide additional breadth and depth to the CEO position. Our business environment has become increasingly complex and dynamic. Many other respected companies with the size and diversity of HP have found a similar approach useful. Together, Dean Morton and I will carry out the responsibilities of overall company management.

Dean and I have worked closely together for years, and the creation of the Chief Executive Office only

***"The new (CEO) office offers 'one-stop shopping.'*"**

strengthens that relationship. The new office offers "one-stop shopping." When a request comes to one of us, it will be communicated to the other person as a matter of course.

As for more detailed organizational issues beyond those described above,

our approach to change will be evolutionary. Dean and I will work extensively with the people directly involved to create organizations that are responsive to our business needs in the years ahead.

By giving some senior HP managers a new responsibility or reporting relationship, we hope to broaden their experience and develop an expanded team which can lead HP in the decade ahead. These new assignments reflect the flexibility and teamwork that have

"I'm keenly aware that it is the personal actions of HP people everywhere that will determine the success of this or any organization."

been the hallmark of HP managers over the years, and we're grateful for their willingness to take on these roles.

I'm keenly aware that it is the personal actions of HP people everywhere that will determine the success of this or any organization. This truth is evident everywhere, but especially so in our systems businesses: There's simply no way that any organizational alignment alone can encompass all the interdependencies that exist in our business relationships. That's why we rely so heavily on informal management systems and a spirit of teamwork that derives from our commitment to succeed in the marketplace as a unified company.

All of us at HP need a renewed emphasis on teamwork. We need a

degree of patience and, as we work out the details of the new structure, a commitment to make this new organization work.

I have a steadfast faith in HP's future. Let me say that differently: I have faith in the people who will build HP's future. If there's one thing that characterizes an HP employee it's an irresistible urge to make things better.

We don't and *won't* get comfortable with the status quo. Instead, we always envision some ideal and then stretch ourselves to meet it. This desire to make things better—and the changes it compels—is sometimes uncomfortable. But it's *always* healthy. It's what makes HP great.

So, in that spirit, I urge all of us to see this new organization as a time of self-renewal at HP. I look forward to working with all of you to help us achieve HP's full potential for greatness.

EXTRA MEASURE

Biospherian crew prepares for 'launch'

The dream of Biosphere 2 is still very much alive, but the "slumber" has been delayed a bit.

In October, the people at Space Biospheres Ventures (SBV) announced that sealing the 2¼-acre closed, self-sustaining ecological project has been delayed from September to March.

Scientists and researchers need the additional time to complete construction, "biospherian" training and experiments before the structure north of Tucson, Arizona, is closed for two years.

HP is providing the nerve system for Biosphere 2 (July-August 1990 *Measure*) which involves HP's analytical, medical, computer systems, instrumentation, and custom hardware and software.

In September, SBV announced the eight



Eight "biospherians" are scheduled to enter Biosphere 2 in March.

environmental pioneers who were chosen to be "biospherians." They are (pictured above, from left): Jane Poynter, Linda Leigh, Mark Van Thillo, Roy Walford, Taber MacCallum, Abigail Ailing, Sally Silverstone and crew leader Bernd Zabel.

It's a match

Sunnyvale, California, will be "tough on crime" with the help of an automated fingerprint-identification system (AFIS) that runs on an HP 9000 Model 375 workstation, which HP donated.

The AFIS allows Sunnyvale to build its own database of fingerprints, and improve timeliness and match rate.

Along with matching fingerprints from crime

scenes, the city will be able to do live matches when criminals are brought into the police station. The city expects to recover more stolen goods by quickly matching fingerprints and apprehending suspects.

Because a fingerprint match is considered strong evidence in court, Sunnyvale hopes that AFIS will save time and money in helping prosecute criminals.

In the running

What has 20,000 legs, 20,000 arms and travels 190 miles in about 24 hours?

It's the ninth-annual Hood to Coast relay race from 6,000 feet high on Mt. Hood near Portland, Oregon, to Seaside, Oregon, on the Pacific Ocean coast.

Among the nearly 900 teams in the August race this year were five from HP, including two teams each from the McMinnville, Oregon, site and Vancouver Division, and a women's

team from Fort Collins, Colorado, and Cupertino and Roseville, California.

Each team had 12 runners who each ran three five-mile legs of the race. All HP teams met their goal—to finish the race within one hour of their estimated arrival time.

The women's team, competing in the Womens Corporate Division, won its category for the fifth consecutive year.



KATHY CHENEY

McMinnville's Tritastopus Rex team finishes the Hood to Coast race.



WOLFGANG GROSSBACH

A Romanian doctor uses HP gear to care for a malnourished child.

HP lends a hand to Romanians

Dozens of Romanian youngsters are receiving life-saving treatment at a children's hospital, thanks to the efforts of two R&D engineers from HP's Böblingen (Germany) Medical Division.

Wolfgang Grossbach and Gerhard Tivig, a native Romanian, convinced division management to donate 12 HP 7835X series patient monitors to the Spitalul Clinic de Copii in Timisoara, Romania.

The donation was shipped through HP's

Vienna, Austria, sales office, which is providing equipment support.

Many of the 200-plus children in the hospital suffer from malnutrition. They need the constant care the HP monitors provide.

"The Romanian physicians tell us that the monitors are working perfectly," Wolfgang says, "and that the donation has brought an enormous advantage in health care there."



HP helped U.W. engineering students gear for automotive success.

HP workstations help students engineer automotive success

University of Washington (UW) engineering students hoped to finish among the top 10 in a recent contest for student chapters of the Society of Automotive Engineers (SAE).

Instead, with a hand from HP, the team rolled to a fifth-place overall ranking in its first-ever national Formula SAE competition.

The UW mechanical-engineering students' car won first places for best overall design and best suspension, and a second place for best use of composites among the

47 entries.

The students used a network of HP 9000 workstations to design the car. HP has committed \$5.5 million to the UW engineering school.

Joon Yun, an engineering student, told the *Seattle Times* newspaper, "This project crystallized everything I'd learned. It's been an incredible experience, building our own vehicle, driving it and having it run so well. In the usual senior design project, all you get out of it is a grade."



That's a coincidence ... I work for Hewlett-Packard, too!

BOTTOM LINE

Hewlett-Packard Company reported an 8 percent increase in net revenue, a 7 percent increase in earnings from operations and a 5 percent decrease in net earnings for the FY90 third quarter, which ended July 31. (The current third quarter includes three months' amortization of goodwill related to the 1989 Apollo acquisition, compared with two months in the year-ago quarter.)

Net revenue totaled \$3.2 billion, up from \$3.0 billion in the year-ago quarter.

Net earnings were \$178 million or \$.73 per share on approximately 242 million shares outstanding, compared with \$187 million or \$.79 per share in the third quarter of FY89.

Orders for the third quarter totaled \$3.3 billion, up 9 percent from \$3.0 billion in the same quarter in FY89.

CHART CHANGES

The Analytical Products Group has restructured the former Scientific Instruments Division. Its mass spectrometer/infrared product line (R&D, marketing) under

Larry Cattran reports into the group's Product Businesses Unit. Manufacturing, support functions become part of SID Site Operations under John Seyfarth as operations manager.

The Circuit Technology Group has formed a new Integrated Circuits Business Division (ICBD) under Dragan Ilic.

(See pages 23-25 for a major corporate reorganization covered in this issue.)

SOFTWARE STRATEGY

The Engineering Applications Group (EAG) will focus on software applications for mechanical engineering and data-management markets, with the Mechanical Design Division operating more like an independent software vendor. The Electronic Design Division will phase out developing proprietary software for electronic design.

In the Information Networks Group, the Santa Clara Information Systems Division (SSD) will rely on ISVs for future commercial application-development tools. SSD has ended its own work in this area and is reducing staffing at the Australian Software Operation.



Firefighters spring into action during the annual muster in Milford.

A hot time in Connecticut

Ever since Bob Crosby got involved in his hobby, his interest has spread like a house afire.

Bob, a premier support consultant for Sales Force 12 in Darien, Connecticut, has been a co-producer of the annual Engine 260 Antique Fire Apparatus Show & Muster in nearby Milford for seven years.

A muster is like a firefighter's olympics, where more than 70 crews from throughout the Northeast part of the U.S. compete in skill events such as the ladder climb, bucket brigade, tug-o-war and hose-spraying accuracy.

Bob and other volunteers use a battery of HP computers, software and peripherals for administrative and promotional aspects for the muster, which draws more than



5,000 people.

It's more than just a hobby and civic event for Bob (shown above with his son, Jeffrey). He's also a volunteer fireman for the Derby (Connecticut) Fire Department, captain of Engine 260 and owner of a 1958 Ford fire engine.

Several years ago, Bob helped save the life of a man trapped under debris of a Derby restaurant fire. "The ultimate joy was seeing him out alive and on a stretcher bound for the hospital," Bob says. "That is why firefighters do what they do—it's our highest reward."

NEW HATS

Jacques Clay has been named Personal Computer Group general manager. Group headquarters have moved from Northern California to Grenoble, France, marking the first time HP has had a group headquarters outside the United States.

Milt Liebhaber to GM, Optoelectronics Division... **Sherry Harvey** to operations manager, Manufacturing Productivity Division.

NEW PRODUCTS

New **HP Apollo 9000 Series 400 workstations** from the Apollo Systems Division are based on Motorola 68040 and 68030 processors and are fully compatible with previous-generation HP and Apollo 68000-based workstations....The General Systems Division's **HP 9000 Model 860S** has four times the cache size of the Model 855S and can deliver up to 30 percent more performance in on-line transaction-processing settings.

From the Information Networks Group: **HP SNA Distribution Services/XL** allows the exchange of electronic

messages between HP DeskManager and IBM OfficeVision/MVS. HP OfficeFax (combined with other HP utilities) allows accessing facsimile services from HP electronic-mail systems, while HP NewWave Mail lets PC users send and receive a wide variety of files with graphics.



HP 8751A

The **HP 8751A vector-network analyzer** from the YHP Instrument Operation is a low-frequency (5-Hz to 500-MHz) analyzer designed to reduce test times for design-and-production-test engineers.

The **HP KeyWand bar-code scanner** replaces entry by keyboard for many IBM PCs. From the Optical Communication Division.

The **HP 71150C and HP 71250C test systems** from the Signal Analysis Division are designed for Pan-European digital-cellular-radio-transmitter measurement needs.

PARTING SHOT

Going ape for the summer

Few people can match Steve Guthrie's experiences when it comes to swapping stories about "how I spent my summer vacation."

In July, the native Australian left the wilds of the Commercial Systems Division in Cupertino, California, to spend three weeks deep in the rain forest of Borneo studying the habits of orangutans.

Steve, a performance support engineer for HP 3000 systems, visited Borneo's Orangutan Research and Conservation Project to assist noted primatologist Dr. Birute Galdikas as an unpaid volunteer.

"Dr. Galdikas has conducted the world's most comprehensive study of orangutan behavior," Steve notes. "She runs a center for rehabilitation of ex-captive orangutans to the wild."

Steve's duties included tracking wild orangutans through the forest and recording observations of



Studying orangutans in Borneo was an up-close and personal experience for Steve Guthrie.

their interactions, foraging patterns and vocalizations.

One focus of study was imitative behavior. At times it was difficult to tell who was studying whom. "Ex-captives living in the camp vicinity would follow us to the river and copy us brushing our teeth and shampoo-

ing our hair," Steve says.

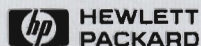
Steve also spent part of the summer of 1989 on an archaeological expedition, surveying and excavating an Inca site in the Peruvian Andes.

Now he plans to become more involved in the orangutan project, and hopes

to return to Borneo for a month next summer.

"The orangutan is severely endangered due to the continuing habitat destruction," Steve says. "Playing a small role in furthering our understanding of this magnificent species has been very gratifying." ■

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